



AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE
SCIENTIFIC CONGRESS & EXPO

FINAL PROGRAM

American Society for Reproductive Medicine
Celebrating **75** *Years*
1944-2019 of History and Innovation



JOIN US FOR OUR

Opening Ceremony

Opening Ceremony Breakfast supported by 

Monday, October 14th,
7:45 am – 8:30 am

Plenary 1 will immediately follow in the same room.
A complimentary continental breakfast will be available 7:00 am – 7:45 am

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THIS YEAR, WE WELCOME YOU TO THE HISTORICALLY RICH CITY OF PHILADELPHIA, PENNSYLVANIA for the 75th annual meeting of the American Society for Reproductive Medicine and celebration of our 75th anniversary as a society! This year's ASRM Scientific Congress & Expo theme is "Celebrating 75 Years of History and Innovation" in keeping with our anniversary and the critical role of ASRM in focusing on the many innovations in reproductive medicine. Dr. Keith Jarvi, Scientific Congress Program Chair, and Dr. Cigdem (Cori) Tanrikut, Pre-Congress Program Chair, and their teams have designed a comprehensive and provocative program for Congress attendees. The entire program is designed to address the educational and practice needs of physicians, nurses, andrology and embryology laboratory personnel, genetic counselors, social workers, practice and laboratory managers, as well as practitioners in mental health, law, and ethics.

OUR WEEKEND BEGINS with exciting Pre-Congress courses that range from the latest on subchromosomal variations and mosaicism and their clinical significance in ART practices to reproductive aging, cryostorage management, ethical and legal issues related ART and family building, and endometriosis diagnosis and management. The Pre-Congress program has initiated half-day courses into the program for the first time to better meet the differing schedules as our attendees arrive. We hope that you will take advantage of these new offerings. The Pre-Congress Program Committee has collaborated with our affiliated societies and professional, special interest groups, and several International Societies as well as other outside Societies to present a wide range of often multi-disciplinary Pre-Congress courses designed to meet the needs of clinicians, scientists, laboratory technologists, nurses, and other health-care and allied professionals.

The Scientific Congress Continuing Medical Education (CME) course offerings will include morning plenary and dual-afternoon lectures, symposia, and interactive sessions. I am excited to share with you that the lectures will touch on historical perspectives again, as well as innovative lectures that focus on communication between generations, exciting new innovations in live imaging to reveal the mechanisms that form embryos, examination of IVF as a business, with a special focus on male factors in infertility, including the effect of sperm factors on offspring, the ethics of human germline editing, a reflection of the patient's perspective on fertility preservation, as well as the role of big data in healthcare. We will also have a unique presentation on the role of innovation including use of robotics in surgery, and an overview of male contraception from historical and present perspectives, as well as future directions in contraception.

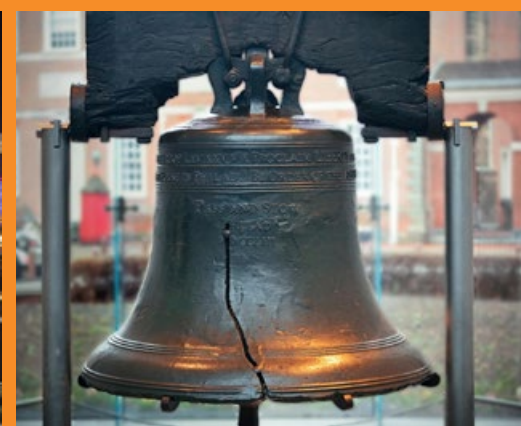
The symposia and interactive sessions will touch on a range of topics, from politics and ethics in embryo research, access to care, endometrium therapy, regenerative medical therapies for reproductive medicine, reproductive epigenetics, and egg freezing – both lab as well as family building considerations. CME sessions will be complemented by non-CME activities including intimate, in-depth luncheons with recognized experts in our highly successful Expert Encounters; roundtable luncheons covering the breadth and depth of reproductive medicine; and oral and poster-format scientific abstract presentations, representing cutting-edge research in reproductive medicine and biology.

We welcome our members, trainees, and colleagues from around the world to the ASRM 2019 Scientific Congress & Expo! We value your participation and engagement and hope you will take advantage of the opportunities provided by the meeting to interact and network with colleagues.

I look forward to seeing you in the exciting city of Philadelphia, where together, we will celebrate ASRM's "75 Years of History and Innovation." I encourage all to consider joining us at the 75th Anniversary Gala on Sunday night, October 13, 2019 at Philadelphia's beautiful National Constitution Center where we celebrate the Society's anniversary and support the research efforts of our Society members to further improve medical care provided by our members.

Sincerely,

Peter N. Schlegel, M.D.
ASRM President, 2018-2019



[CLICK HERE TO GET THE PHILADELPHIA VISITOR'S GUIDE](#)

What To See and Do in Philadelphia

Designed with the traveler in mind, this publication serves as a personal tour guide to Philadelphia and the region. The latest edition is packed with exciting information to help you create your own custom experience.

IMMERSE YOURSELF IN AMERICA'S SPIRIT IN THE CITY WHERE IT ALL BEGAN—

with iconic landmarks that played a pivotal role in the establishment of America—including Independence Hall, a UNESCO World Heritage Site and the building where the Declaration of Independence and U.S. Constitution were debated and adopted. While we are known worldwide for our rich history, Philadelphia has accumulated significant accolades for our walkable downtown, distinct neighborhoods, outstanding restaurants, exceptional arts and culture, outdoor life, tax-free shopping on clothing and shoes, and much more. Use this guide for suggestions on what to explore in the first World Heritage City in the U.S.

While Philadelphia boasts a wide range of attractions and activities for all ages and interests, it's also the perfect starting point for excursions into the surrounding region. Destinations in the greater Philadelphia region, including surrounding counties, New Jersey and Delaware, are often just a one-to-two hour drive from Center City. Whether you're stopping to smell the flowers in horticultural hotspot Longwood Gardens, sampling sweetness in Hershey's chocolate capital of the world, hitting the outlets in the surrounding counties, or retracing the footsteps of Revolutionary soldiers in Valley Forge National Historical Park, there's no shortage of things to do outside Philadelphia's limits.

Text and images from www.discoverphl.com



Philadelphia Hotel Information

- 1 Aloft Philadelphia Downtown
- 2 Four Points by Sheraton City Center Hotel
- 3 Hampton Inn Philadelphia Convention Center
- 4 Hilton Garden Inn Philadelphia Convention Center
- 5 Home2 Suites by Hilton
- 6 Le Meridien Philadelphia
- 7 Loews Philadelphia Hotel
- 8 Philadelphia 201 Hotel
- 9 The Notary Hotel, Autograph Collection® by Marriott
- 10 **Philadelphia Marriott Downtown ***
- 11 The Ritz-Carlton, Philadelphia

**NEW
THIS YEAR;**
all official ASRM hotels
are within walking distance
to the convention center.
Please note that since all
hotels are within walking
distance, shuttle bus
transportation will not
be provided.

* Headquarters Hotel



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2019 AWARDS

American Society for Reproductive Medicine 2019 SOCIETY AWARDS

DISTINGUISHED RESEARCHER AWARD LAWRENCE C. LAYMAN, M.D.

The 2019 recipient of the ASRM Distinguished Researcher Award is **Lawrence C. Layman, M.D.** This award recognizes a member of the American Society for Reproductive Medicine who has made outstanding contributions to clinical or basic research in reproduction published during the previous 10 years. The recipient will have demonstrated sustained long-term commitment to advancing the frontiers of research in reproductive sciences and educating future scholars in the field.

Dr. Layman is the Robert B. Greenblatt, M.D. Distinguished Chair in Endocrinology, Professor & Chief of the Section of Reproductive Endocrinology, Infertility, & Genetics in the Department of Obstetrics & Gynecology at the Medical College of Georgia at Augusta University. His decades of focused basic and clinical research efforts have resulted in significant advances in our understanding of genes important in the process of reproductive development, sexual differentiation, puberty, and the function of other organs including the heart and brain. He is among the first to have identified human reproductive gene mutations and their associated phenotypes. Dr. Layman's research has been published in prestigious journals including Nature Genetics, New England Journal of Medicine, American Journal of Human Genetics, Journal of Clinical Endocrinology & Metabolism, and Fertility & Sterility. His impressive works have led to improved outcomes for patients with infertility and recurrent pregnancy loss, and potentially reduced the likelihood of birth defects.



2019 AWARDS

LIFETIME ACHIEVEMENT AWARD DAVID R. MELDRUM, M.D.

The 2019 recipient of ASRM's Lifetime Achievement Award is **David R. Meldrum, M.D.** This award honors a member of the American Society for Reproductive Medicine who has made exemplary contributions to the field of reproduction during his/her career. The recipient has demonstrated innovation, leadership, and other scholarly accomplishments that have a lasting impact on advancing clinical care, the frontiers of research in reproductive sciences, and the education of the scientific community.

Dr. Meldrum is Clinical Professor at both UCLA and UCSD and Scientific Director of the UCSD/Reproductive Partners San Diego IVF Center. He began his career as full-time faculty at UCLA, where he established the University's first IVF programs in 1983. His program was one of the first to incorporate transvaginal ultrasound into IVF practice, and he reported the first US pregnancy resulting from ultrasound-guided oocyte retrieval. During this time, his mentorship of a team of Chinese IVF physicians and laboratory personnel led to achievement of the first IVF birth in China. While at UCLA, he also was the first to report the use of a GnRH agonist for endometriosis treatment.

Dr. Meldrum remained on clinical faculty as he established one of the first IVF programs in southern California. He remained a prolific author, with over one hundred and fifty scholarly articles and book chapters focusing on IVF techniques and ovarian stimulation. His publication highlights include the first use of an agonist and hormone replacement for oocyte donation recipients, first use of an agonist for modified natural cycle IVF, transdermal estradiol for HRT, the first report of premature luteinization in agonist cycles, the role of growth hormone and androgens in ovarian stimulation, and the importance of single embryo transfer.

Dr. Meldrum has been a national leader of reproductive medicine throughout his career. He was central in the early efforts to assure the highest quality of reproductive laboratories and served as the first Commissioner for the College of American Pathologists/American Society for Reproductive Medicine Reproductive Embryo Laboratory Accreditation Program. He has served as president of the Society for Assisted Reproductive Technology and the Pacific Coast Reproductive Society. One of his most lasting contributions was co-creation of the University of California Comprehensive Postgraduate Course on IV-ET, which he has continued to direct for over three decades.



2019 AWARDS

IRA AND ESTER ROSENWAKS NEW INVESTIGATOR AWARD

(supported by an endowment from Zev Rosenwaks, M.D.)

SAMUEL ZEV WILLIAMS, M.D., PH.D.

Zev Williams, M.D., Ph.D. has been selected as the 2019 recipient of the Ira and Ester Rosenwaks New Investigator Award. This award recognizes a member of ASRM who has made outstanding contributions to clinical or basic research in reproductive sciences published within 10 years after completing research or clinical training and initiating an independent career as an investigator.

Dr. Williams is the Chief of the Division of Reproductive Endocrinology and Infertility and the Wendy D. Havens Associate Professor of Women's Health at Columbia University Irving Medical Center (CUIMC). His research focuses on the development and implementation of novel technologies and approaches to understand, diagnose and treat disease related to reproductive medicine with a goal of making genetic testing and monitoring of pregnancy faster, safer and more accessible. With NIH funding support, he and his team have been instrumental in developing methods for automated isolation of placental RNA from circulation, genetic analysis of archived products of conception following miscarriage and, most recently, short-read nanopore sequencing. These efforts are helping to advance the technology that allows rapid and low-cost sequencing of clinical samples from embryo biopsy, chorionic villus samples and amniocentesis samples.



2019 AWARDS

SUHEIL J. MUASHER, M.D., DISTINGUISHED SERVICE AWARD

(supported by an endowment from Suheil J. Muasher, M.D.)

EDWARD E. WALLACH, M.D.

The 2019 recipient of the Suheil J. Muasher, M.D., Distinguished Service Award is **Edward E. Wallach, M.D.** Each year, ASRM honors individuals who have provided distinguished service to ASRM. Recipients are selected based on their scientific, leadership, organizational, political or societal service contributions to the ASRM, reproductive medicine and/or reproductive medicine patients.

Dr. Wallach is Distinguished Service Professor Emeritus and previous Chair of Gynecology and Obstetrics at the Johns Hopkins University School of Medicine. As a scientist, teacher, editor, administrator, and leader, Dr. Wallach unquestionably has been one of the foremost academicians in the field of reproductive endocrinology. He has published hundreds of scientific articles and authored over 20 books. His sentinel investigations of egg maturation and fertilization served as the foundation for modern in vitro fertilization. His publications on ethics have significantly influenced the practice of in-vitro fertilization and set the standard in the field of embryo research and assisted fertilization in the United States. As a clinical educator, he has won numerous teaching awards and trained hundreds of residents and fellows in our field. His commitment to faculty development has led to scores of his trainees becoming division directors, department chairs and deans at a number of prestigious academic institutions. Dr. Wallach has served as President of the Society for Gynecologic Investigation, and as Director of the American Board of Obstetrics and Gynecology and its Division of Reproductive Endocrinology and Infertility. His extensive service to ASRM includes membership on multiple committees, chair of the Ethics and Journal Committees, member of the Board of Directors and ultimately ASRM President. He served as Associate Editor of *Fertility & Sterility* for 38 years.



2019 AWARDS

KAVOUSSI FAMILY OUTSTANDING TEACHER AWARD

(The Award is made possible through an educational endowment from K.M. Kavoussi, M.D., Homa Kavoussi, Shahryar Kavoussi, M.D., M.P.H., Mehryar Kavoussi, J.D., Parviz Kavoussi, M.D., and Austin Fertility & Reproductive Medicine/Westlake IVF.)

SANDRA A. CARSON, M.D.

Sandra A. Carson, M.D. has been chosen to receive the 2019 Kavoussi Family Outstanding Teacher Award. This award honors an ASRM member who is recognized as an outstanding educator in undergraduate, graduate, postgraduate, professional or patient education in basic and/or clinical reproductive biology and medicine.

Dr. Carson has proven herself to be a remarkable educator throughout her productive career and serves as a role model for all academicians in our field. After receiving her medical degree and residency training at Northwestern University, she completed her fellowship at the University of Chicago. She then served as Professor and REI Division Director at Brown University and then Tufts Medical School. During this time, she taught scores of residents and fellows in reproductive medicine, many of whom have gone on to excel in academic medicine. Her tireless efforts in our Society as an educator and mentor culminated with her election as ASRM President. Her committed efforts as a superb educator resulted in her being chosen to serve as ACOG Vice President of Education. In this role, her contribution to education included development of a course for new Department Chairs in OB/GYN, implementation of the online version of the annual CREOG resident in-training examination, and re-structuring the ACOG annual clinical meeting. She continues to teach medical students, residents and fellows as Professor and Section Chief of the Section of Reproductive Endocrinology and Infertility at Yale University Medical School.



2019 AWARDS

ARNOLD P. GOLD FOUNDATION HUMANISM IN MEDICINE AWARD FOR PRACTICING PHYSICIANS

(supported by a gift from the Arnold P. Gold Foundation)

MARK D. HORNSTEIN, M.D.

Mark D. Hornstein, M.D. has been selected as the 2019 Arnold P. Gold Foundation Humanism in Medicine Award for Practicing Physicians. This award honors an ASRM member who as a practicing physician has best demonstrated the ideals of compassionate and respectful care for a patient's physical and emotional well-being. The recipient of the award should demonstrate compassion, empathy, competence, respect, sensitivity, effective communication and trustworthiness.

Dr. Hornstein has served as a superlative role model for a generation of residents and fellows while treating his patients with the highest level of compassion and empathy in his role as Harvard Professor of Obstetrics, Gynecology and Reproductive Biology and Director of the Division of Reproductive Endocrinology at Brigham and Women's Hospital. In addition to the compassionate care he has exhibited at the bedside, he has focused much of his scientific efforts on issues important to patients, including the influence of economic conditions on infertility treatment, and the outcome of pregnancies resulting from these treatments. His efforts have clearly demonstrated to everyone who knows him his deep understanding and respect for patients, families, co-workers, and trainees.



2019 AWARDS

KY CHA AWARD IN STEM CELL TECHNOLOGY

(supported by an endowment from the Asia-Pacific Biomedical Research Foundation)

GUSTAVO MOSTOSLAVSKY, M.D., PH.D.

Gustavo Mostoslavsky, M.D., Ph.D., has been selected as the 2019 recipient of the KY Cha Award in Stem Cell Technology. This award, which carries a \$20,000 research grant, is given competitively by ASRM to provide start-up funds to initiate an innovative research project in regenerative medicine and stem cell technology. A research project in which the applicant is the primary investigator is the essential core of the grant. Selection is based primarily on the scientific merit of the proposal and the qualifications of the applicant.

Dr. Mostoslavsky is Associate Professor of Medicine and Microbiology at Boston University School of Medicine. The subject of his Award research is "Embryonic Stem Cell Modeling of Intestinal Differentiation." Dr. Mostoslavsky received his M.D. from the University of Tucuman in Argentina and his Ph.D. from the Hebrew University in Jerusalem, Israel. His longstanding interest in basic science and regenerative medicine brought him to Harvard Medical School to pursue postdoctoral studies with stem cells and gene therapy. In 2008, Dr. Mostoslavsky established a laboratory at Boston University to study human biology in normal and disease states through the use of stem cells in general and pluripotent stem cells. His main research interests are stem cells, disease modeling, regenerative medicine, gene correction and use of lentiviral vectors as tools for gene transfer. Dr. Mostoslavsky is a founder and Co-Director of the Boston University Center for Regenerative Medicine.



2019 AWARDS

ASRM Research Grants

The ASRM 2019 Research Grants provide funds in amounts of \$10,000 to \$50,000 to foster the development of innovative research, to facilitate the research endeavors of new investigators, and to provide bridge funding for projects that advance the Society's mission. Proposals from junior faculty, particularly those in their first three years of faculty appointment, receive priority in the competitive review by the ASRM Research Committee. Following are the projects funded by the 2019 ASRM Research Grants:

- **Joseph M. Letourneau, M.D.**, University of Utah Oncofertility Program, "Effect of Alkylating Agent Chemotherapy on the Uterus of Young Adult Cancer Survivors: Exploring the Uterus as a New Frontier for Fertility Preservation," \$46,078
- **Eve Feinberg, M.D./Elaine Cheung, Ph.D.** (co-PI's), Northwestern University, "Characterizing Fertility Concerns among Women in Academic Medicine and Evaluating the Economic Impact of Fertility Preservation for Deferred Reproduction," \$50,000
- **Lynae M. Brayboy, M.D., FACOG.**, Warren Alpert Medical School of Brown University, "Dysfunctional MDR-1 disrupts mitochondrial homeostasis in the oocyte and ovary," \$40,000
- **Amanda Kallen, M.D.**, Yale University School of Medicine, "Novel, Noncoding-RNA-Mediated Mechanisms for Regulation of Follicular Quantity and Quality," \$50,000

Society for Reproductive Endocrinology and Infertility Research Grant

The SREI 2019 Research Grant provides funds of \$40,000 to foster the development of innovative research, to facilitate the research endeavors of new investigators, and to provide bridge funding for projects that advance the Society's mission. Proposals from junior faculty, particularly those in their first three years of faculty appointment, receive priority in the competitive review by the ASRM Research Committee. The 2019 SREI Research Grant was awarded to **Rachel Weinerman, M.D., FACOG**, Case Western Reserve University, for her project titled, "Impact of repeated blastocyst vitrification and trophectoderm biopsy on embryonic gene expression and embryonic development in a mouse model."

Reproductive Scientist Development Program (RSDP)

This program was established in 1988 to train obstetrician-gynecologists committed to academic investigative careers in fundamental biomedical science. The program is supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development in collaboration with private agencies, professional societies, foundations, and private industry. The American Society for Reproductive Medicine supports three clinician-scientists in the subspecialty of reproductive endocrinology and infertility. The RSDP provides career development support for obstetricians and gynecologists who are committed to a basic science career in academic medicine and research. The areas of interests covered by the program are broadly defined, with emphasis in cell and molecular biology as applied to problems in reproductive endocrinology, genetics, maternal-fetal medicine, oncology, infectious disease, or other aspects of reproduction. The 2019-2020 grant year RSDP Scholars are **Valerie Flores, M.D.**, Yale University and **Aleksandar Stanic-Kostic, M.D., Ph.D.**, University of Wisconsin-Madison.

Scientific Congress Prize Papers

Candidates for two Scientific Congress Prizes are selected by the Research Committee from all abstracts submitted to the Congress regardless of designation of group for initial review. These oral presentations will be judged at the congress and selection will be determined by the Research Committee. The presenters of the two Scientific Congress Prize papers will be awarded \$1,000.00.

Scientific Congress Prize Posters

Posters must be put up on the appropriate boards on Sunday, October 13, between 1:00 p.m. and 5:00 p.m. or on Monday, October 14, between 9:00 a.m. and 1:00 p.m., and must remain in place for the entire Congress. Posters will be judged by the Prize Poster Committee beginning at 12:00 p.m. Monday. The awardees will receive:

- First Prize: \$500
- Second Prize: \$300
- Third Prize: \$200

Formal recognition of these awards will take place during the ASRM Members Meeting and Awards ceremony on Wednesday, October 16, 2019 at 8:45 am.



2019 AWARDS

Cappy Rothman, M.D., Chuck Sims, M.D., and the California Cryobank Traveling Scholar Award

This award allows a junior physician or basic science researcher to explore a career in male reproduction and urology. The primary purpose of the award is to stimulate the scientific interests of students, residents and fellows in the study of male reproduction.

The recipient for 2019 is **Kohn Taylor, M.D.**, who will present abstract O-55 titled "EVALUATION OF FERTILITY PRESERVATION COUNSELING AND REFERRALS IN US CLINICAL PRACTICES: REVIEW OF ASCO'S QUALITY ONCOLOGY PRACTICE INITIATIVE (QOPI)" in the SMRU Traveling Scholars oral abstract session on Monday, October 14, 2019.

SMRU Lipshultz/Lamb Traveling Scholar Award

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This award allows a junior physician or basic science researcher to explore a career in male reproduction and urology. The primary purpose of the award is to stimulate the scientific interests of students, residents and fellows in the study of male reproduction. The recipient for 2019 is **Patel Darshan, M.D.**, who will present abstract O-56 titled "LOWER TOTAL MOTILE COUNT IS ASSOCIATED WITH SMALLER HISTORIC INTERGENERATIONAL FAMILY SIZE: A PEDIGREE ANALYSIS FROM THE UTAH POPULATION DATABASE (UPDB)" in the SMRU Traveling Scholars oral abstract session on Monday, October 14, 2019.

The recipient for 2019 is **Patel Darshan, M.D.**, who will present abstract O-56 titled "LOWER TOTAL MOTILE COUNT IS ASSOCIATED WITH SMALLER HISTORIC INTERGENERATIONAL FAMILY SIZE: A PEDIGREE ANALYSIS FROM THE UTAH POPULATION DATABASE (UPDB)" in the SMRU Traveling Scholars oral abstract session on Monday, October 14, 2019.

Manhattan Cryobank Endowed Traveling Scholar Award

This award allows a junior physician or basic science researcher to explore a career in male reproduction and urology. The primary purpose of the award is to stimulate the scientific interests of students, residents and fellows in the study of male reproduction.

The recipient for 2019 is **Jayadevan Rajiv, M.D.**, who will present abstract O-57 titled "DECISIONAL CONFLICT AND KNOWLEDGE AMONG PATIENTS WITH VARICOCELE SEEKING TREATMENT FOR INFERTILITY" in the SMRU Traveling Scholars oral abstract session on Monday, October 14, 2019.

Society for Male Reproduction and Urology Traveling Scholars Program

The annual Society for Male Reproduction and Urology Traveling Scholars Program allows a diverse group of young clinical physicians and basic science researchers the opportunity to explore a career in male reproductive medicine. The primary purpose of the program is to stimulate the scientific interests of residents and fellow in the study of male reproduction. Scholars are selected by the SMRU Research Committee based on the scores of their abstracts submitted for the Scientific Congress. The SMRU Traveling Scholars oral abstract session will take place on Monday, October 14, 2019. The following Traveling Scholars will present their research during the session: **Solomon Hayon, M.D.**, O-58, "SPERM EXTRACTED FROM MEN WITH OBSTRUCTIVE AZOSPERMIA VIA MINIMALLY-INVASIVE EPIDIDYMAL SPERM ASPIRATION (MIESA) RESULTS IN NON-INFERIOR IVF OUTCOMES COMPARED WITH NORMAL EJACULATED SEMEN IN COUPLES WITH UNEXPLAINED INFERTILITY"; **Priyanka Bearely, M.D.**, O-59, "GONADAL END ORGAN EFFECTS IN MALE TO FEMALE TRANSGENDER PATIENTS ON HORMONAL THERAPY"; **Jessica Marinaro, M.D.**, O-60, "THE UTILITY OF SPERM CRYOPRESERVATION AT THE TIME OF VASECTOMY REVERSAL."

ASRM Corporate Member Council In-Training Travel Awards

Fifteen awards to trainee abstract presenters from the United States and five awards to trainee abstract presenters from countries outside the United States are made possible through the generous support of the ASRM Corporate Member Council. Recipients of this award are undergraduate, graduate, medical or allied health professions students, postdoctoral trainees, or clinical residents or fellows. Candidates are the first and presenting author of an abstract that has been selected for oral or poster presentation in the ASRM 2019 Scientific Congress. Selection is based on the scientific merit of the abstract and the qualifications of the author. The awardees receive:

- \$1,000 (US presenters)
- \$2,000 (Non-US presenters)



2019 AWARDS

O-161, Tuesday, October 15, 2019, 11:45 AM
BEYOND PREMATURE OVARIAN INSUFFICIENCY:
CHARACTERIZING REPRODUCTIVE AGING AND RISKS
FOR ACCELERATED AGING IN ADOLESCENT AND
YOUNG ADULT (AYA) CANCER SURVIVORS.

Alexa C.O. Medica, M.D.¹, Christina Lam, M.D.², Kelsey Pinson, M.D.², Ksenya Shliakhtsitsava, M.D.³, Brian W. Whitcomb, Ph.D.⁴ and H. Irene Su, M.D., M.S.C.E.¹,
¹University of California San Diego, La Jolla, CA, ²University of California, San Diego, La Jolla, CA, ³UT Southwestern, Dallas, TX, ⁴University of Massachusetts, Amherst, Amherst, MA

O-93, Tuesday, October 15, 2019, 11:15 AM
HIGHER INCIDENCE OF POSTPARTUM COMPLICATIONS
IN WOMEN WITH POLYCYSTIC OVARY SYNDROME.

Snigdha Alur-Gupta, M.D.¹, Mary Regina Boland, Ph.D., Mary D Sammel, Sc.D.³, Kurt T. Barnhart, M.D., M.S.C.E.⁴ and Anuja Dokras, M.D., Ph.D.⁵,
¹University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, ²Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania, Philadelphia, PA, ³University of Pennsylvania, Philadelphia, PA, ⁴UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM, PHILADELPHIA, PA

O-129, Tuesday, October 15, 2019, 11:15 AM
LOW ENDOMETRIAL VOLUME IS NOT ASSOCIATED WITH
DIMINISHED LIVE BIRTH FOLLOWING TRANSFER OF A
SINGLE THAWED EUPLOID BLASTOCYST.

Shelby A. Neal, M.D.¹, Richard Thomas Scott Jr., M.D.¹ and Linnea R. Goodman, M.D.², ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²University of North Carolina, Raleigh, NC

P-769, Wednesday, October 16, 2019, 6:30 AM – 7:45 AM
WEEKEND PRESENTATION IMPACTS TIMING OF
ECTOPIC PREGNANCY SURGICAL MANAGEMENT AND
OUTCOMES.

Jessica Selter, M.D.¹, Timothy Wen, M.D., M.P.H.¹, Jenna M Turocy, M.D.¹, Eric J. Forman, M.D.¹, Samuel Zev Williams, M.D., Ph.D.¹ and Alexander Friedman, M.D., M.P.H.,
¹Columbia University Medical Center, New York, NY

O-96, Tuesday, October 15, 2019, 12:00 PM
CONSERVATIVE SURGERY FOR OVARIAN TORSION IN
YOUNG WOMEN: PERIOPERATIVE COMPLICATIONS
AND NATIONAL TRENDS.

Rachel S. Mandelbaum, M.D., Meghan B. Smith, M.D., Lynda D. Roman, M.D., Richard J. Paulson, M.D., M.S.

and Koji Matsuo, M.D., Ph.D., University of Southern California, Los Angeles, CA

O-51, Monday, October 14, 2019, 11:15 AM
CANCER TREATMENT IS ASSOCIATED WITH A
MEASURABLE DECREASE IN LIVE BIRTHS IN A LARGE,
POPULATION-BASED STUDY.

Deepika Garg, M.D.¹, Huong Dieu Meeks, Ph.D.¹, Erica Johnstone, M.D.¹, Alexander W. Pastuszak, M.D., Ph.D.², Sarah L. Berga, M.D.², Ken R. Smith, Ph.D.¹, James Hotaling, M.D.² and Joseph M. Letourneau, M.D.¹, ¹University of Utah, Salt Lake City, UT, ²University of Utah School of Medicine, Salt Lake City, UT

O-74, Monday, October 14, 2019, 11:00 AM
DOES PREIMPLANTATION GENETIC TESTING FOR
ANEUPLOIDY (PGT-A) HARM EMBRYOS? NO—A MULTI-
CENTER, PROSPECTIVE, BLINDED, NON-SELECTION
STUDY EVALUATING THE PREDICTIVE VALUE OF AN
ANEUPLOID DIAGNOSIS AND IMPACT OF BIOPSY.

Ashley W. Tiegs, M.D.¹, Xin Tao, Ph.D.², Christine V. Whitehead, B.S.N., R.N.³, Shelby A Neal, M.D.⁴, Emily K. Osman, M.D.³, Julia G. Kim, M.D., M.P.H.³, Brent M. Hanson, M.D.³, Emre Seli, M.D.³, George Patounakis, M.D., Ph.D.⁵, Jacqueline Gutmann, M.D.⁶, Arthur J. Castelbaum, M.D.⁶ and Richard Thomas Scott Jr., M.D.³, ¹Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³IVI-RMA New Jersey, Basking Ridge, NJ, ⁴Sidney Kimmel College of Medicine, Thomas Jefferson University, Philadelphia, PA, ⁵IVI-RMA Florida, Lake Mary, FL, ⁶IVI-RMA Philadelphia, Philadelphia, PA

O-75, Monday, October 14, 2019, 11:15 AM
PREIMPLANTATION GENETIC TESTING (PGT) IS
ASSOCIATED WITH HIGHER ODDS OF A HEALTHY
LIVEBIRTH AMONG DONOR OOCYTE RECIPIENTS IN THE
UNITED STATES: A 2013-2015 NATIONAL STUDY.

Cassandra Roeca, M.D.¹, Rachel L. Johnson, M.S.², Nichole Carlson, Ph.D.² and Alex J. Polotsky, M.D., M.S.³,
¹University of Colorado School of Medicine, Aurora, CO, ²University of Colorado School of Public Health, Aurora, CO, ³University of Colorado, Denver, CO

O-248, Wednesday, October 16, 2019, 11:00 AM
DISRUPTION OF MITOCHONDRIAL DYNAMICS IN
OOCYTES RESULTS IN INFERTILITY AND DIMINISHED
OVARIAN RESERVE.

Man Zhang, M.D, Ph.D.¹, Muhammed Burak Bener, B.S.¹, Zongliang Jiang, Ph.D.², Tianren Wang, M.D.,



2019 AWARDS

Ph.D.³, Ecem Esencan, M.D.¹, Richard Scott III, B.S.⁴ and Emre Seli, M.D.¹, ¹Yale School of Medicine, New Haven, CT, ²Louisiana State University, Baton Rouge, LA, ³Foundation for Embryonic Competence, Basking Ridge, NJ, ⁴Foundation of Embryo Competence, Basking Ridge, NJ

O-46, Monday, October 14, 2019, 11:30 AM
PERSISTENT WIDENING IN RACIAL DISPARITIES BETWEEN BLACK AND WHITE WOMEN UNDERGOING ART OVER THE LAST 10 YEARS.

Alexander Kotlyar, M.D.¹, David B. Seifer, M.D.², Burcin Simsek, Ph.D.³ and Ethan Wantman, M.B.A.⁴, ¹Yale Fertility Center/Yale University, New Haven, CT, ²Yale University, New Haven, CT, ³University of Pittsburgh, Pittsburgh, PA, ⁴Redshift Technologies, Inc., New York, NY

O-162, Tuesday, October 15, 2019, 12:00 PM
COMPENSATORY OVARIAN HYPERTROPHY AFTER UNILATERAL OOPHORECTOMY: EVALUATION OF OVARIAN VOLUMES IN THE PEDIATRIC AND ADOLESCENT POPULATION.

Allison C. Mayhew, M.D., Mina Farahzad, M.D., Ph.D. and Krista Childress, M.D., Emory University School of Medicine, Atlanta, GA

O-31, Monday, October 14, 2019, 10:45 AM
EFFECT OF WILDFIRE SMOKE ON PREGNANCY OUTCOMES IN THE NON-HUMAN PRIMATE.

Bryn Erin Willson, M.D.¹, Kent E. Pinkerton, Ph.D.², Bill Lasley, Ph.D.³ and Nancy Gee, Ph.D.⁴, ¹UC Davis Health, Sacramento, CA, ²UC Davis Center for Health and the Environment, Davis, CA, ³Center for Health & Environment, Davis, CA, ⁴UC Davis - Center for Health & Environment, Davis, CA

O-18, Monday, October 14, 2019, 12:00 PM
PREVALENCE OF CLINICALLY SIGNIFICANT CONGENITAL HEART DEFECTS IN LOW-RISK IVF PREGNANCIES.

Sarah H. Bjorkman, M.D.¹, Kurt R. Bjorkman, M.D.², Anna K. Sfakianaki, M.D., M.P.H.³, Joshua A. Copel, M.D.³ and Mert Ozan Bahtiyar, M.D.³, ¹Yale School of Medicine, New Haven, CT, ²Department of Pediatrics, Yale School of Medicine, New Haven, CT, ³Yale Maternal Fetal Medicine, Fetal Care Center, New Haven, CT

O-99, Tuesday, October 15, 2019, 11:15 AM
HAS THE MASSACHUSETTS INFERTILITY MANDATE LIVED UP TO ITS PROMISE?

Katherine Koniares, M.D.¹, Alan S. Penzias, M.D.² and

Eli Adashi, M.D.³, ¹Tufts Medical Center, Boston, MA, ²Boston IVF, Waltham, MA, ³The Warren Alpert Medical School, Brown University, Providence, RI

O-213, Wednesday, October 16, 2019, 11:15 AM
THE IMPACT OF AGE BEYOND PLOIDY: OUTCOME DATA FROM 9,101 EUPLOID SINGLE EMBRYO TRANSFERS.

Andres Reig, M.D.¹, Richard Thomas Scott Jr., M.D.² and Emre Seli, M.D.², ¹Yale University - Bridgeport Hospital, Bridgeport, CT, ²IVI-RMA New Jersey, Basking Ridge, NJ

O-135, Tuesday, October 15, 2019, 11:15 AM
ROLE OF METFORMIN IN PREVENTION OF PREMATURE LUTEINIZATION IN FRESH INTRACYTOPLASMIC SPERM INJECTION (ICSI) CYCLES: A RANDOMIZED CONTROLLED TRIAL.

Reda S Hussein, M.D.¹, Ahmed F. Amin, M.D.¹, Yulian Zhao, Ph.D.², Hisham A. Abou-Taleb, M.D., Ph.D.¹, Ahmed M. Abdelmagied, M.D.¹, Osama S Abdalmageed, M.D.¹ and Ihab Elhashar, M.D.¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN

O-220, Wednesday, October 16, 2019, 11:30 AM
COMPARISON OF CRYOPROTECTANT FREE VITRIFICATION OF HUMAN SPERMATOZOA IN A NEW SEMEN SIMULANT WITH RAPID FREEZE OF SPERMATOZOA IN GLYCEROL.

Soundarya Janani Senthil Kumar, M.B.B.S., M.Sc.¹, N. Sanjeeva Reddy, M.D. (Obstetrics and Gynecology), DGO², Manjula Daniel G, Ph.D.³ and Sindhuja Namboori Srinivasan, M.B.B.S., M.Sc. Clinical Embryology, Ph.D. Research Scholar⁴, ¹Clinical Embryology Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ²Professor and Head, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ³Assistant Professor, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁴Lecturer, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India

O-118, Tuesday, October 15, 2019, 11:30 AM
PATERNAL CONTRIBUTIONS IN EARLY EMBRYONIC GENE EXPRESSION: ROLE IN EARLY PREGNANCY LOSS.

Vidhu Dhawan, M.D.¹, Manoj Kumar, Ph.D.¹, Neena Malhotra, M.D., F.R.C.O.G.², Neeta Singh, M.D.², Vatsla



2019 AWARDS

Dadhwai, M.D.² and Rima Dada, M.D., Ph.D.¹, ¹All India Institute of Medical Sciences, Anatomy, New Delhi, India, ²All India Institute of Medical Sciences, Obstetrics & Gynecology, New Delhi, India

P-744, Wednesday, October 16, 2019,

6:30 AM – 7:45 AM

PROTEOMIC SIGNATURES OF EPIGENETIC AND TRANSCRIPTION REGULATORS ARE PIVOTAL IN CONTROLLING PATERNAL FACTORS IN RECURRENT PREGNANCY LOSS.

Gayatri Mohanty, Ph.D.¹, Soumya Ranjan Jena, M.Phil.¹, Jasmine Nayak, M.Phil.¹, Sujata Kar, M.B.B.S., M.D., D.N.B.² and Luna Samanta, PhD¹, ¹Redox Biology Laboratory, Department of Zoology, Center of Excellence in Environment and Public Health, Ravenshaw University, Cuttack, Odisha, India, ²A-32, Unit-4, Kharvel Nagar, Bhubaneswar, India

P-690, Wednesday, October 16, 2019,

6:30 AM – 7:45 AM

KNOWLEDGE, ATTITUDES AND CONCERNS TOWARDS ELECTIVE SINGLE EMBRYO TRANSFER (ESET) IN COUPLES UNDERGOING FRESH/FROZEN EMBRYO TRANSFER CYCLES IN ASIAN POPULATION.

Hema Vaithianathan, M.D., M.R.C.O.G.¹, Gopinath P. M., M.D., D.G.O., F.M.M.C., F.I.C.S., F.I.C.O.G., MBA(HSM)² and Gayathri Devi S. S., M.D.(O.G.), F.R.M.³, ¹Postdoctoral Fellow, Chennai, India, ²Director & Senior Consultant, Chennai, India, ³Consultant - Reproductive Medicine, Chennai, India

Resident In-Training Award

This award recognizes the presenter of an exceptional abstract who is currently a resident in training in the field of obstetrics and gynecology or urology. Recipients of these awards specified that they would like to be eligible for the "Resident In-Training Award" during the online abstract submission process. The awardee receives:

- \$500
- One-year free ASRM membership
- Free registration to ASRM 2019 in Philadelphia, PA

P-755, Wednesday, October 16, 2019, 6:30 AM – 7:45 AM

SURGICAL SIMULATION SUPPLEMENTS REI FELLOWSHIP TRAINING.

Tess E. Chase, M.D.¹, Stephanie J. Estes, M.D.², Divya Kelath Shah, M.D., M.M.E.³, Preston Parry, M.D.⁴, Balasubramanian Bhagavath, M.B.B.S.⁵, Steven R. Lindheim, M.D.⁶, John C Petrozza, M.D.⁷ and Samantha Pfeifer, M.D.⁸, ¹Penn State Milton S. Hershey Medical Center, Harrisburg, PA, ²Penn State Milton S. Hershey Medical Center, Hershey, PA, ³University of Pennsylvania, Philadelphia, PA, ⁴Parryscope Fertility, Madison, MS, ⁵University of Rochester Medical Center, Rochester, NY, ⁶Wright State University, Dayton, OH, ⁷Massachusetts General Hospital Fertility Center, Boston, MA, ⁸Weill Medical College of Cornell University, New York, NY

In-Training Awards For Research

Five In-Training Awards for Research are granted in recognition of outstanding research conducted by individuals who are in-training. Recipients of these awards specified that they would like to be eligible for the "In-Training Award for Research" during the online abstract submission process. He/she is the presenting author (first) and a medical student, resident, fellow or undergraduate, graduate or postdoctoral student. The awardees receive:

- \$250
- One-year free ASRM membership
- Free registration to ASRM 2019 in Philadelphia, PA

O-176, Tuesday, October 15, 2019, 11:00 AM

REGULATION OF EMBRYONIC DEVELOPMENT BY PLATELET-ACTIVATING FACTOR IS MOST LIKELY VIA THE INTRINSIC APOPTOSIS PATHWAY.

Tracy Oyugi, BS¹, Lindsay Michele Grasso, BS, MS¹, Charlotte Leblang, BA, MS¹, Lauren Tyler, BS¹, Arnav Lal, na¹, Jonathan L Blalock, BS¹, Shawn Zimmerman, PhD, HCLD², Renee J. Chosed, PhD¹ and William E. Roudebush, PhD¹, ¹University of South Carolina School of Medicine Greenville, Greenville, SC, ²Vios Fertility Institute, Swansea, IL

O-154, Tuesday, October 15, 2019, 11:30 AM

HOME- OR HOSPITAL -BASED MONITORING TO TIME FROZEN EMBRYO TRANSFER IN THE NATURAL CYCLE? OUTCOMES FROM A RANDOMIZED CONTROLLED TRIAL (ANTARCTICA-2).

Tjitske Zaat, M.D. (MSc)¹, J. P. de Bruin, M.D., PhD², Mariette Goddijn, Prof. Dr. M.D. PhD¹, Jantien Visser, M.D. PhD³, Harold Verhoeve, M.D., PhD⁴, C. B. Lambalk, M.D., PhD⁵, Eva Groenewoud, M.D., PhD⁶,



2019 AWARDS

M. van Wely, Dr. Ph.D.¹ and Femke Mol, M.D., Ph.D.⁷,
¹Amsterdam University Medical Center, Amsterdam, Netherlands, ²Jeroen Bosch Hospital, Department of Obstetrics and Gynecology, Den Bosch, Netherlands, ³Amphia Hospital, Breda, Netherlands, ⁴OLVG Oost Hospital, Department of Obstetrics and Gynecology, Amsterdam, Netherlands, ⁵Amsterdam UMC, Vrij Universiteit Amsterdam, Department of Reproductive Medicine, Amsterdam, Netherlands, ⁶NoordWest Ziekenhuisgroep, Den Helder, Netherlands, ⁷Amsterdam UMC, University of Amsterdam, Center for Reproductive Medicine, Amsterdam, Netherlands

O-157, Tuesday, October 15, 2019, 10:45 AM
 ADOLESCENTS AND ECTOPIC PREGNANCY: TRENDS IN EMERGENCY DEPARTMENT UTILIZATION BETWEEN 2006-2014.

Emma Giuliani, M.D.¹, Monica W. Rosen, M.D.², Elisabeth H. Quint, M.D.², Erica E. Marsh, M.D.¹ and Yolanda R. Smith, M.D.², ¹Reproductive Endocrinology and Infertility, University of Michigan, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI

O-216, Wednesday, October 16, 2019, 12:00 PM
 ENDOMETRIAL COMPACTION (DECREASED THICKNESS) IN RESPONSE TO PROGESTERONE RESULTS IN HIGHER ONGOING PREGNANCY RATE.

Eran Zilberberg, M.D.¹, Dan Nayot, M.D.², Ramsey Genco Smith, B.Sc.³, James Meriano, M.Sc.³, Eran Barzilay, M.D. Ph.D.⁴, Jigal Haas, M.D. and Robert F. Casper, M.D.⁶, ¹University of Toronto & Trio Fertility, Toronto, ON, Canada, ²TRIO Fertility; Staff Physician, Toronto, ON, Canada, ³TRIO Fertility, Toronto, ON, Canada, ⁴Department of Obstetrics and Gynecology, Samson Assuta Ashdod University Hospital, Ashdod, Israel, ⁵TRIO Fertility and University of Toronto, Toronto, ON, Canada

O-122, Tuesday, October 15, 2019, 11:00 AM
 IVF CLINIC WEBSITES: BUYER BEWARE THE SYSTEM IS BROKEN.

May-Tal Sauerbrun-Cutler, M.D.¹, Emma Charlotte Brown, B.A.², Warren J. Huber III, M.D., Ph.D.¹, Phinnara Has, M.S.³ and Gary N. Frishman, M.D.⁴, ¹Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI, ²Brown University, Providence, RI, ³Division of Research Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI, ⁴Brown University; Women & Infants Hospital, Providence, RI

SRS In-Training Awards For Research

Three (3) SRS In-Training Awards for research are granted. The purpose of these awards is to recognize outstanding research conducted by individuals in-training. Recipients of these awards specified that they would like to be eligible for the "SRS In-Training Award for Research" during the online abstract submission process and submitted their abstract to the "Reproductive Surgery" category. He/she is a presenting author (first), and a medical student, resident, fellow or undergraduate, graduate or postdoctoral student. The awardees receive:

- \$250.00
- One-year free ASRM and SRS membership
- Free registration to ASRM 2019 in Philadelphia, PA

O-86, Monday, October 14, 2019, 11:00 AM
 OUTCOME OF LAPAROSCOPIC ADHESIOLYSIS IN INFERTILE PATIENTS WITH PELVIC ADHESIONS FOLLOWING CESAREAN DELIVERY: A RANDOMIZED CLINICAL TRIAL. **Adel al shahat Algargawy**, M.D.¹, Ayman Shehata Dawood, M.D.², Hesham A. Salem, F.A., M.D., M.D.³ and Ahmed alsayed Alhalwagy, M.D.⁴, ¹Assistant Professor, Tanta, Egypt, ²Lecturer at Tanta University, Tanta, Egypt, ³Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ⁴Assistant Professor at Faculty of Medicine, Tanta University, Tanta, Egypt

O-90, Monday, October 14, 2019, 12:00 PM
 SINGLE EUPLOID FROZEN EMBRYO TRANSFER: EVALUATING IMPACT OF INTERVAL SINCE OPERATIVE HYSTEROSCOPY. **Allison C. Petrini**, M.D.¹, Catherine W. Chan, M.D.², Kelly McCarter, M.D.², Micha Thompson, B.A.¹, Monica Pasternak, M.D.¹, Nigel Pereira, M.D.¹ and Steven Spandorfer, M.D.¹, ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY

P-771, Wednesday, October 16, 2019, 6:30 AM – 7:45 AM
 FLUID DEFICIT CALCULATION AT HYSTEROSCOPY IN PATIENTS WITH AND WITHOUT TUBAL OCCLUSION: COULD CONSIDERATION OF TUBAL PASSAGE CHANGE SAFETY LIMITS? **Irene Peregrin-Alvarez**, M.D., Robert Roman, M.D., Mary Emily Christiansen, M.D., Joshua Morris, M.D. and Laura Detti, M.D., University of Tennessee Health Science Center, Memphis, TN



2019 AWARDS

Affiliated Society Prize Papers

The Society for Assisted Reproductive Technology, The Society for Reproductive Endocrinology and Infertility, The Society of Reproductive Surgeons, and The Society for Male Reproduction and Urology have selected prize papers for an award of \$500 each.

SART Prize Paper

O-213, Wednesday, October 16, 2019, 11:15 AM
THE IMPACT OF AGE BEYOND PLOIDY: OUTCOME DATA FROM 9,101 EUPLOID SINGLE EMBRYO TRANSFERS.

Andres Reig, M.D.¹, Richard Thomas Scott Jr., M.D.² and Emre Seli, M.D.², ¹Yale University - Bridgeport Hospital, Bridgeport, CT, ²IVI-RMA New Jersey, Basking Ridge, NJ

SREI Prize Paper

P-348, Tuesday, October 15, 2019, 6:30 AM – 7:45 AM
EFFECT OF ADRIAMYCIN, BLEOMYCIN, VINBLASTINE AND DACARBAZINE (ABVD) TREATMENT ON FEMALE MICE REPRODUCTIVE FUNCTION. **Yubing Liu Sr.**, Ph.D.¹, Xinmei Lu Sr., Master², Xiaocan LEI Sr., Ph.D.³ and Richeng Chian Sr., Ph.D.¹, ¹Shanghai 10th People's Hospital of Tongji University, Shanghai, China, ²Zhongshan Hospital, Fudan University, Shanghai, China, ³Zunyi Medical University, Zhunyi, China

SRS Prize Paper

O-86, Monday, October 14, 2019, 11:00 AM
OUTCOME OF LAPAROSCOPIC ADHESIOLYSIS IN INFERTILE PATIENTS WITH PELVIC ADHESIONS FOLLOWING CESAREAN DELIVERY: A RANDOMIZED CLINICAL TRIAL. **Adel al shahat Algergawy**, M.D.¹, Ayman Shehata Dawood, M.D.², Hesham A. Salem, FA, M.D., M.D.³ and Ahmed alsayed Alhalwagy, M.D.⁴, ¹Assistant Professor, Tanta, Egypt, ²Lecturer at Tanta University, Tanta, Egypt, ³Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ⁴Assistant Professor at Faculty of Medicine, Tanta University, Tanta, Egypt

SMRU Prize Paper

O-146, Tuesday, October 15, 2019, 11:00 AM
THE EFFECT OF ADVANCING PATERNAL AGE ON PREGNANCY AND NEONATAL OUTCOMES FOLLOWING A SINGLE EUPLOID FROZEN EMBRYO TRANSFER IN A DONOR OOCYTE MODEL. **Sydney Chang**, M.D.¹, Dmitry Gounko, MA², Joseph A. Lee, B.A.², Natan Bar-Chama, M.D.¹, Alan B. Copperman, M.D.¹ and Lucky Sekhon, M.D.², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

SRBT Basic Science Award

A prize of \$500, made possible by a donation from LifeAire Systems, is awarded to a basic reproductive science abstract submitted in either a Reproductive Biology or Reproductive Technology category for the ASRM 2019 Scientific Congress. The abstract was selected for either oral or poster presentation. Abstracts were evaluated by the corresponding abstract grading committee based on originality, experimental design, quality, and significance.

P-35, Tuesday, October 15, 2019, 6:30 AM – 7:45 AM

PROSPECTIVE RANDOMIZED MULTICENTER STUDY ON CULTURE OF SIBLING HUMAN OOCYTES IN A SEQUENTIAL MEDIA SYSTEM WITH AND WITHOUT ANTIOXIDANTS : THE EFFECT OF FEMALE AGE.

Shigetoshi Mizumoto, Ph.D.¹, Atsumi Yoshida, M.D., Ph.D., M.B.A.², Takeshi Kuramoto, M.D., Ph.D.¹, Miho Tanaka, M.Sc.², Markus HM Montag, Ph.D.³ and David Gardner, Ph.D.⁴, ¹Kuramoto Women's Clinic, Fukuoka, Japan, ²Kiba Park Clinic, Tokyo, Japan, ³labcomm GmbH, Eisenachstr, Sankt Augustin, Germany, ⁴School of BioSciences, University of Melbourne, Melbourne, VIC, Australia

SRBT Clinical Science Award

A prize of \$500, made possible by a donation from Fuji Film Irvine Scientific, Inc., is awarded to a clinical reproductive science abstract submitted in either a Reproductive Biology or Reproductive Technology category for the ASRM 2019 Scientific Congress. The abstract was selected for either oral or poster presentation. Abstracts were evaluated by the corresponding abstract grading committee based on originality, experimental design, quality, and significance.

O-26, Monday, October 14, 2019, 11:00 AM
MORPHOLOGY STILL MATTERS WHEN SELECTING EUPLOID EMBRYOS: INNER CELL MASS (ICM) AND TROPHOECTODERM (TE) ARE PREDICTIVE OF PREGNANCY OUTCOMES. **Sarah Druckenmiller**, M.D.¹, Nicole Noyes, M.D.², Megan E Sutter, Ph.D.¹, David H. McCulloh, Ph.D.³ and James A. Grifo, M.D., Ph.D.³, ¹NYU Langone Health, New York, NY, ²Northwell Health, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY



2019 AWARDS

Professional and Special Interest Groups

Several groups have selected prize papers for cash awards.

Early Pregnancy SIG Prize Papers

O-116, Tuesday, October 15, 2019, 11:00 AM
IS THERE A PREDISPOSITION TO EMBRYONIC ANEUPLOIDY IN PRE-DIABETIC PATIENTS? **Baruch Abittan, M.D.**¹, Hillary Pearson, M.D., Randi H. Goldman, M.D.³, Christine Mullin, M.D.⁴, Weiwei Shan, MS PhD⁵ and Avner Hershlag, M.D.¹, ¹Northwell Fertility, Manhasset, NY, ²Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY, ³Northwell Fertility, ⁴Northwell Health Department of Biostatistics, New Hyde Park, NY

O-115, Tuesday, October 15, 2019, 10:45 AM
RETAINED PREGNANCY TISSUE AFTER MISCARRIAGE ASSOCIATED WITH HIGH RATE OF CHRONIC ENDOMETRITIS. **Dana B. McQueen**, M.D., M.A.S., Kruti P. Maniar, M.D., Anne Hutchinson, M.D., Rafael Confino, B.S., Jared C Robins, M.D., Lia A. Bernardi, M.D. and Mary Ellen Pavone, M.D., M.S.C.I., Northwestern University, Chicago, IL

Endometriosis SIG Prize Paper

Endometriosis SIG Prize Paper (Best Basic Science)

O-188, Wednesday, October 16, 2019, 11:00 AM
PLATELETS DRIVE FIBROGENESIS THROUGH INDUCTION OF ENDOTHELIAL-MESEMCHYMAL TRANSITION (ENDOMT) IN ENDOMETRIOSIS. **Xishi Liu**, M.D., Ph.D., Dingmin Yan, M.D. and Sun-Wei Guo, Ph.D., Shanghai Obstetrics and Gynecology Hospital, Fudan University, Shanghai, China

Endometriosis SIG Prize Paper (Best in Clinical/Population Science)

O-190, Wednesday, October 16, 2019, 11:30 AM
CYTOSKELETAL AND EXTRA CELLULAR MATRIX GENES ARE KEY CONTRIBUTORS IN THE PATHOGENESIS OF ENDOMETRIOSIS. **Hans M Albertsen**, Ph.D., Rakesh Chettier, M.S. and Kenneth Ward, M.D., Juneau Biosciences, LLC, Salt Lake City, UT

Fertility Preservation SIG Prize Paper

A prize of \$500 made possible by a donation from Ferring Pharmaceuticals Inc., is awarded to an abstract submitted in the Fertility Preservation category.

O-51, Monday, October 14, 2019, 11:15 AM
CANCER TREATMENT IS ASSOCIATED WITH A MEASURABLE DECREASE IN LIVE BIRTHS IN A LARGE, POPULATION-BASED STUDY. **Deepika Garg**, M.D.¹, Huong Dieu Meeks, Ph.D.¹, Erica Johnstone, M.D.¹, Alexander W. Pastuszak, M.D., Ph.D.², Sarah L. Berga, M.D.², Ken R Smith, Ph.D.¹, James Hotaling, M.D.² and Joseph M. Letourneau, M.D.¹, ¹University of Utah, Salt Lake City, UT, ²University of Utah School of Medicine, Salt Lake City, UT

Health Disparities SIG Prize Paper

A \$250 prize, supported by the Health Disparities Special Interest Group Chair.

O-46, Monday, October 14, 2019, 11:30 AM
PERSISTENT WIDENING IN RACIAL DISPARITIES BETWEEN BLACK AND WHITE WOMEN UNDERGOING ART OVER THE LAST 10 YEARS. **Alexander Kotlyar**, M.D.¹, David B. Seifer, M.D.², Burcin Simsek, Ph.D.³ and Ethan Wantman, M.B.A.⁴, ¹Yale Fertility Center/Yale University, New Haven, CT, ²Yale University, New Haven, CT, ³University of Pittsburgh, Pittsburgh, PA, ⁴Redshift Technologies, Inc., New York, NY

Mental Health Professional Group Prize Paper (Best Overall)

A prize of \$500, made possible by a donation from Daniel Shapiro, MD/Inception.
P-682, Wednesday, October 16, 2019, 6:30 AM – 7:45 AM
ASSOCIATION OF MENTAL HEALTH DIAGNOSES AND UTERINE ENDOMETRIAL THICKNESS IN WOMEN UNDERGOING IN-VITRO FERTILIZATION. **Anna K. Knight**, Ph.D.¹, Heather S. Hipp, M.D.¹, Laurie McKenzie, M.D.², Jessica B. Spencer, M.D., M.Sc.³ and Sabrina A. Gerkowicz, M.D.³, ¹Emory University School of Medicine, Atlanta, GA, ²Baylor College of Medicine, Houston, TX, ³Emory University School of Medicine, Department of Gynecology and Obstetrics, Atlanta, GA



2019 AWARDS

Mental Health Professional Group Prize Paper (Best Randomized, Controlled Trial)

A prize of \$500 from the Mental Health Professional Group. O-154, Tuesday, October 15, 2019, 11:30 AM HOME- OR HOSPITAL-BASED MONITORING TO TIME FROZEN EMBRYO TRANSFER IN THE NATURAL CYCLE? OUTCOMES FROM A RANDOMIZED CONTROLLED TRIAL (ANTARCTICA-2). **Tjitske Zaat**, M.D. (M.Sc.)¹, J. P. de Bruin, M.D., Ph.D.², Mariette Goddijn, Prof. Dr. M.D. Ph.D.¹, Jantien Visser, M.D. Ph.D.³, Harold Verhoeve, M.D., Ph.D.⁴, C. B. Lambalk, M.D. Ph.D.⁵, Eva Groenewoud, M.D. PhD.⁶, M. van Wely, Dr. Ph.D.¹ and Femke Mol, M.D., Ph.D.⁷, ¹Amsterdam University Medical Center, Amsterdam, Netherlands, ²Jeroen Bosch Hospital, Department of Obstetrics and Gynecology, Den Bosch, Netherlands, ³Amphia Hospital, Breda, Netherlands, ⁴OLVG Oost Hospital, Department of Obstetrics and Gynecology, Amsterdam, Netherlands, ⁵Amsterdam UMC, Vrij Universiteit Amsterdam, Department of Reproductive Medicine, Amsterdam, Netherlands, ⁶NoordWest Ziekenhuisgroep, Den Helder, Netherlands, ⁷Amsterdam UMC, University of Amsterdam, Center for Reproductive Medicine, Amsterdam, Netherlands

Nutrition SIG Prize Paper

A prize of \$250 made possible by a donation from Theralogix, is awarded to an abstract submitted in the Nutrition category.

O-62, Monday, October 14, 2019, 11:00 AM SERUM OMEGA-3 AND OMEGA-6 FATTY ACID CONCENTRATIONS AND FECUNDITY. **Jamie Stanhiser**, M.D.¹, Anne Marie Jukic, Ph.D.² and Anne Z. Steiner, M.D., M.P.H.³, ¹University of North Carolina, Chapel Hill, NC, ²National Institute of Environmental Health Sciences, Durham, NC, ³Duke University Medical Center, Durham, NC

Reproductive Immunology SIG Prize Paper

O-255, Wednesday, October 16, 2019, 11:15 AM UNRAVELLING THE IMMUNOGENETICS OF PREGNANCY: PARENTAL HLA-C ALLOTYPES ARE PREDICTIVE OF PREGNANCY LOSS AFTER SINGLE EUPLOID EMBRYO TRANSFERS. **Diego Marin**, M.S.¹, Xin Tao, Ph.D.², Li Sun, Ph.D.² and Richard Thomas Scott Jr., M.D.¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Foundation for Embryonic Competence, Basking Ridge, NJ



2019 AWARDS

VIDEO PRESENTATION AWARDS

The Video Committee selects an overall first prize award video (\$1,000), second place video (\$500), honorable mention for best laboratory video (\$500), and honorable mention for best urology video (\$500). Individual category recognitions are identified by a certificate.

First Prize Video

V-1, Monday, October 14, 2019, 4:30 PM
TECHNIQUES FOR SUCCESSFUL VAGINAL ANASTOMOSIS IN THE UTERINE TRANSPLANT PATIENT.

Jenna M. Rehmer, M.D., Elliott G. Richards, M.D., Cecile A. Ferrando, M.D., M.P.H. and Rebecca Flyckt, M.D., Cleveland Clinic Foundation, Cleveland, OH

Second Place Video

V-2, Monday, October 14, 2019, 4:42 PM
SURGICAL MANAGEMENT OF DEEP INFILTRATING ENDOMETRIOSIS INVOLVING THE RECTOSIGMOID COLON.

Natalia C Llorena, M.D.¹, Anup B. Shah, M.D., M.S.¹, Hermann Kessler, M.D., Ph.D.², Tommaso Falcone, M.D.³ and Rebecca Flyckt, M.D.¹, ¹Cleveland Clinic Foundation, Cleveland, OH, ²Cleveland Clinic, Cleveland, OH, ³Cleveland Clinic, Cleveland, OH

Best Urology Video

V-3, Monday, October 14, 2019, 4:53 PM
NO-SCALPEL VASECTOMY: PUNCTURE-FIRST WITH MULTI-OCCLUSION TECHNIQUE.

Khushabu Kasabwala, M.D.¹, Helen Levey Bernie, D.O., M.P.H.², Soo Jeong Kim, M.D., Vanessa L. Dudley, M.S.H.S. and Marc Goldstein, M.D.⁴, ¹New York Presbyterian - Weill Cornell Medical Center, New York, NY, ²Memorial Sloan Kettering Cancer Center, New York, NY, ³Weill Cornell Medicine, New York Presbyterian Hospital, New York, NY

Best Laboratory Video

V-4, Monday, October 14, 2019, 5:06 PM
DEVELOPMENT OF AN AUTOMATIC PRONUCLEAR DETECTION SYSTEM FOR HUMAN EMBRYOS USING DEEP LEARNING TECHNOLOGY.

Hiroyuki Watanabe, M.S.¹, Noritaka Fukunaga, Ph.D.¹, Sho Sanami, Ph.D.², Hiroya Kitasaka, Ph.D.¹, Yuji Tsuzuki, M.S.², Yuta Kida, M.S.¹, Seiji Takeda, M.S.² and Yoshimasa Asada, M.D., Ph.D.¹, ¹Asada Ladies Clinic, Nagoya, Aichi, Japan, ²Research & Development Center, Dai Nippon Printing Co., Ltd., Kita-ku, Tokyo, Japan



2019 AWARDS

2019 ASRM Star Award

The ASRM Star Award recognizes members who have presented during at least nine of the ASRM Scientific Congresses/Annual Meetings from 2009-2018. Presentations may include postgraduate courses/seminars, Scientific Program symposia, posters and/or oral abstracts.

2019 ASRM Star Award Recipients

Galal Abdo, Ph.D.
 Mohamed Aboulghar, M.D.
 G. David Adamson, M.D.
 Ashok Agarwal, Ph.D.
 Ayman Al-Hendy, M.D., Ph.D.
 Michael Alper, M.D.
 Robert Anderson, M.D.
 Yoshimasa Asada, M.D., Ph.D.
 Cynthia Austin, M.D.
 Awoniyi Awonuga, M.B.B.S.
 Valerie Baker, M.D.
 G. David Ball, Ph.D.
 David Barad, M.D.
 Kurt Barnhart, M.D.
 C. Brent Barrett, Ph.D.
 Jason Barritt, Ph.D.
 Mohamed Bedaiwy, M.D., Ph.D.
 Barry Behr, Ph.D.
 Angeline Beltsos, M.D.
 Claudio Benadiva, M.D.
 Kristin Bendikson, M.D.
 Paul Bergh, M.D.
 Ricardo Bertolla, D.V.M., Ph.D., M.B.A.
 Edson Borges, M.D., Ph.D.
 Caitlin Boylan, B.S.
 Christine Briton-Jones, Ph.D.
 Orhan Bukulmez, M.D.
 Samantha Butts, M.D.
 Erkan Buyuk, M.D.
 Douglas Carrell, Ph.D.
 Nicholas Cataldo, M.D., M.P.H.
 William Catherino, M.D., Ph.D.
 Marcelle Cedars, M.D.
 T. Arthur Chang, Ph.D.
 Jorge Chavarro, M.D., D.Sc.,
 Jerome Check, M.D.
 Mindy Christianson, M.D.
 Alicia Christy, M.D.
 Pak Chung, M.D.
 Karine Chung, M.D.
 Ana Cristina Cobo, Ph.D.
 Charles Coddington, M.D.
 Amber Cooper, M.D.

Alan Copperman, M.D.
 Christos Coutifaris, M.D., Ph.D.
 Said Daneshmand, M.D.
 Hal Danzer, M.D.
 Alan DeCherney, M.D.
 Nina Desai, Ph.D.
 Laura Detti, M.D.
 Kathleen Devine, M.D.
 Thomas D'Hooghe, M.D., Ph.D.
 Michael Diamond, M.D.
 Anuja Dokras, M.D., Ph.D.
 Alice Domar, Ph.D.
 Kevin Doody, M.D.
 Marlena Duke, M.SC.
 Antoni Duleba, M.D.
 Daniel Dumesic, M.D.
 Randall Dunn, M.D.
 Jennifer Eaton, M.D.
 Lawrence Engmann, M.D.
 Navid Esfandiari, Ph.D.
 Sandro Esteves, M.D., Ph.D.
 Tommaso Falcone, M.D.
 Eve Feinberg, M.D.
 Rui Alberto Ferriani, M.D., Ph.D.
 Rebecca Flyckt, M.D.
 Eric Forman, M.D.
 Victor Fujimoto, M.D.
 Noritaka Fukunaga, Ph.D.
 Juan Garcia-Velasco, M.D.
 David Gardner, D.Phil., Ph.D.
 Antonio Gargiulo, M.D.
 Forest Garner, M.S.
 William Gibbons, M.D.
 Elizabeth Ginsburg, M.D.
 Michael Glassner, M.D.
 Norbert Gleicher, M.D.
 Jeffrey Goldberg, M.D.
 James Goldfarb, M.D., M.B.A.
 Marc Goldstein, M.D.
 Frank Gonzalez, M.D.
 Clarisa Gracia, M.D.
 James Graham, M.S.
 Jamie Grifo, M.D., Ph.D.

Lawrence Grunfeld, M.D.
 Karen Hammond, D.N.P.
 Carol Hanna, Ph.D.
 Tasuku Harada, M.D., Ph.D.
 Shu Hashimoto, D.Phil., Ph.D.
 Jon Hennebold, Ph.D.
 Avner Hershlag, M.D.
 Micah Hill, D.O.
 Jennifer Hirshfeld-Cytron, M.D.
 Brooke Hodes-Wertz, M.D., M.P.H.
 Heather Huddleston, M.D.
 Bradley Hurst, M.D.
 Anthony Imudia, M.D.
 Keith Isaacson, M.D.
 Kristen Ivani, Ph.D.
 Jeffrey Jensen, M.D., M.P.H.
 Sangita Jindal, Ph.D.
 Emily Jungheim, M.D.
 Semra Kahraman, M.D.
 Mandy Katz-Jaffe, Ph.D.
 William Kearns, Ph.D.
 David Keefe, M.D.
 Zaraq Khan, M.D.
 Chung-Hoon Kim, M.D., Ph.D.
 Ertug Kovanci, M.D.
 William Kutteh, M.D., Ph.D.
 Koichi Kyono, M.D.
 Dolores Lamb, Ph.D.
 Ruth Lathi, M.D.
 Angela Lawson, Ph.D.
 Richard Legro, M.D.
 Joseph Letourneau, M.D.
 Michael Levy, M.D.
 Clifford Librach, M.D.
 Frederick Licciardi, M.D.
 Harry Lieman, M.D.
 Barbara Luke, D.Sc., Sc.D., M.P.H.
 Martha Luna Rojas, M.D.
 Monica Mainigi, M.D.
 Erica Marsh, M.D.
 Caroline McCaffrey, Ph.D.
 Blair McCallie, B.SC.
 Susanna McReynolds, Ph.D.



2019 AWARDS

Jennifer Mersereau, M.D.
 Marcos Meseguer, Ph.D.
 Stacey Missmer, D.Sc., Sc.D.
 Kelle Moley, M.D.
 Thomas Molinaro, M.D.
 Dean Morbeck, Ph.D., M.B.A.
 Yoshiharu Morimoto, M.D., Ph.D.
 Eduardo Motta, M.D.
 Suheil Muasher, M.D.
 Tanmoy Mukherjee, M.D.
 Sunni Mumford, Ph.D.
 Santiago Munne, Ph.D.
 Z. Peter Nagy, M.D., Ph.D.
 Ajay Nangia, M.B.B.S.
 Genevieve Neal-Perry, M.D., Ph.D.
 Ceana Nezhat, M.D.
 Craig Niederberger, M.D.
 Nicole Noyes, M.D.
 John Nulsen, M.D.
 Sergio Oehninger, M.D., Ph.D.
 Kutluk Oktay, M.D., Ph.D.
 Joao B Oliveira, M.D., Ph.D.
 Kathleen O'Neill, M.D.
 Kyle Orwig, Ph.D.
 Darius Paduch, M.D., Ph.D.
 Lubna Pal, M.B.B.S.
 Gianpiero Palermo, M.D., Ph.D.
 Lauri Pasch, Ph.D.
 Pasquale Patrizio, M.D.
 Richard Paulson, M.D.
 Mary Ellen Pavone, M.D.
 Antonio Pellicer, M.D.
 Alan Penzias, M.D.
 John Petrozza, M.D.
 Samantha Pfeifer, M.D.
 Margareta Pisarska, M.D.
 Shayne Plosker, M.D.

Alex Polotsky, M.D.
 Thomas Price, M.D.
 Samuel Prien, Ph.D.
 Elizabeth Puscheck, M.D.
 Catherine Racowsky, Ph.D.
 Kevin Richter, Ph.D.
 Paolo Rinaudo, M.D., Ph.D.
 Jared Robins, M.D.
 Mitchell Rosen, M.D.
 Zev Rosenwaks, M.D.
 Ginny Ryan, M.D.
 Edmund Sabanegh, M.D.
 Ghassan Saed, Ph.D.
 Denny Sakkas, Ph.D.
 Mary Sammel, D.Sc., Sc.D.
 Benjamin Sandler, M.D.
 Jay Sandlow, M.D.
 Nanette Santoro, M.D.
 Mark Sauer, M.D.
 Glenn Schattman, M.D.
 Robert Schenken, M.D.
 Mitchel Schiewe, Ph.D.
 Peter Schlegel, M.D.
 William Schoolcraft, M.D.
 Richard Scott, M.D.
 James Segars, M.D.
 David Seifer, M.D.
 Emre Seli, M.D.
 Suneeta Senapati, M.D.
 Paulo Serafini, M.D., Ph.D.
 Bruce Shapiro, M.D., Ph.D.
 Fady Sharara, M.D.
 Rakesh Sharma, Ph.D.
 Mark Sigman, M.D.
 Kaylen Silverberg, M.D.
 Carlos Simon, Ph.D.
 Ov Slayden, Ph.D.

Irene Souter, M.D.
 Steven Spandorfer, M.D.
 Amy Sparks, Ph.D.
 Laurel Stadtmauer, M.D., Ph.D.
 Frank Stanczyk, Ph.D.
 Anne Steiner, M.D., M.P.H.
 Mary Stephenson, M.D.
 Judy Stern, Ph.D.
 Elizabeth Stewart, M.D.
 Richard Stouffer, Ph.D.
 Irene Su, M.D.
 Carlos Suelo, M.D.
 Mark Surrey, M.D.
 Jason Swain, Ph.D.
 Takumi Takeuchi, M.D., Ph.D.
 Atsushi Tanaka, M.D., Ph.D.
 Xin Tao, Ph.D.
 Tyl Taylor, Ph.D.
 Hugh Taylor, M.D.
 Michael Thomas, M.D.
 Thomas Toth, M.D.
 Nathan Treff, Ph.D.
 Michael Tucker, Ph.D.
 Meike Uhler, M.D.
 Rebecca Usadi, M.D.
 Takafumi Utsunomiya, M.D., Ph.D.
 Bradley Van Voorhis, M.D.
 Matthew VerMilyea, Ph.D.
 Dagan Wells, Ph.D.
 Eric Widra, M.D.
 Erin Wolff, M.D.
 Wan-Song Wun, Ph.D., H.C.L.D.
 Tae Ki Yoon, M.D., Ph.D.
 Steven Young, M.D., Ph.D.
 Nikica Zaninovic, Ph.D.
 John Zhang, Ph.D.
 Shane Zozula, B.S.

2019 ASRM Service Milestone Award

The ASRM Service Milestone Award recognizes 10, 15, and 20-year milestones for service on boards and/or committees of ASRM or its affiliated societies, professional groups, or special interest groups.

20-Year ASRM Service Milestone Award Recipients

G. David Ball, Ph.D.
 Edward Kim, M.D.

15-Year ASRM Service Milestone Award Recipients

Bradley Van Voorhis, M.D.

10-Year ASRM Service Milestone Award Recipients

Erica Behnke, Ph.D.
 David Grainger, M.D., M.P.H.
 Emily Jungheim, M.D.
 Ertug Kovanci, M.D.
 Angela Lawson, Ph.D.
 Kelly Lynch, M.D.
 Peter McGovern, M.D.

Eli Reshef, M.D.
 Ginny Ryan, M.D.
 Mark Sauer, M.D.
 Carol Wheeler, M.D.



ASRM Scientific Congress Policies and Disclaimers

CANCELLATION POLICY

The American Society for Reproductive Medicine reserves the right to cancel this activity due to unforeseen circumstances. In the event of such cancellation, the full enrollment fee will be returned to the registrant.

REFUND/NON-ATTENDANCE POLICY

Cancellations received before or by September 13th will receive a full refund minus a \$150 processing fee. Cancellation requests must be submitted in writing. Cancellations received after September 13th will not be eligible for a refund.

ADA STATEMENT

The American Society for Reproductive Medicine fully complies with the legal requirements of the Americans with Disabilities Act (ADA) and the rules and regulations thereof. Please notify the American Society for Reproductive Medicine, 1209 Montgomery Highway, Birmingham,

Alabama, USA, 35216, telephone 1-205-978-5000, a minimum of 10 working days in advance of the event if a reasonable accommodation for a disability is needed.

EQUAL OPPORTUNITY STATEMENT

The American Society for Reproductive Medicine values and promotes diversity among its members, officers, and staff. The Society prohibits discrimination toward any member or employee due to race, color, religion, age, gender, sexual orientation, national origin, citizenship, disability, military status, or other basis prohibited by law. ASRM strives to achieve gender, racial, and ethnic balance in hiring and governance. ASRM maintains policies, procedures, and personnel actions that conform to the letter and spirit of all laws and regulations pertaining to equal opportunity and nondiscrimination in employment, appointments, and elections to office.

DISCLAIMER STATEMENT

The content and views presented in this educational activity are those of the faculty/authors and do not necessarily reflect those of the American Society for Reproductive Medicine. This material is prepared based on a review of multiple sources of information, but it is not exhaustive of the subject matter. Therefore, healthcare professionals and other individuals should review and consider other publications and materials on the subject matter before relying solely upon the information contained within this educational activity to make clinical decisions about individual patients.

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HOW TO REGISTER



Register online at www.asrmcongress.org and receive immediate confirmation!



On-site in Philadelphia, PA

Registration and Information

Choices may be limited on-site. Pre-registration is recommended.

ON-SITE REGISTRATION DESK: PENNSYLVANIA CONVENTION CENTER

Friday, October 11 2:00 pm – 6:00 pm
Saturday, October 12 7:00 am – 6:00 pm
Sunday, October 13 7:00 am – 5:00 pm
Monday, October 14 7:00 am – 5:00 pm
Tuesday, October 15 7:00 am – 5:00 pm
Wednesday, October 16 7:00 am – 2:00 pm

BE SURE TO VISIT THE EXPO HALL

Monday, October 14 9:00 am – 5:00 pm
Tuesday, October 15 9:00 am – 5:00 pm
Wednesday, October 16 9:00 am – 2:00 pm

Children under 16 are allowed on the Expo Floor only when accompanied/ supervised by an adult. No strollers allowed.



Share Your Tweets and Pictures on the ASRM 2019 Social Media Wall!

During the ASRM 2019 Scientific Congress, all participants are invited to post tweets, pictures, and feedback on the Congress's Social Media Walls. The Social Media Walls can be viewed in the Convention Center's main lobby, at the ASRM Booth in the Expo Hall, as well as in the meeting areas. All you need in order to post is a mobile device with an installed Twitter or Instagram app or use your device's web browser.

SENDING A TWEET OR POSTING A PICTURE TO THE ASRM 2019 SOCIAL MEDIA WALL



For Twitter, you post a tweet within the Twitter app on your mobile device, or on the Twitter website at www.twitter.com. You are limited to 280 characters in a single tweet. Within your tweet, in order for your message to appear on the Social Media Wall, you must include the hashtag "#ASRM2019," such as:

The #ASRM2019 Plenaries and Symposia in Exhibit Hall C are being translated into Spanish and Mandarin Chinese

or

The #ASRM2019 Mobile App has a locate me function. I really need this if I want to make it to the members meeting on time! #TCB



For Instagram, you must post your pictures from within the Instagram app on your mobile device, although you can view photos on the Instagram website at www.instagram.com. To appear on the ASRM 2019 Social Media Wall, you must use the hashtag #ASRM2019 in the main caption of your photo before you click "SHARE."

**More great hashtags you can use: #Access2Care
#Access2IVF #Infertility #InfertilityAwareness #IVF #75th**

FOLLOWING ASRM ON TWITTER AND INSTAGRAM

On Twitter, simply search for "#ASRM2019" if you wish to follow the tweets of ASRM and other attendees at the Congress. Search for "@ReprodMed" if you also wish to follow ASRM's Twitter feed.

On Instagram, search for "#ASRM2019" if you wish to see all the attendees' photos of the Congress, and search for "asrmcongress" to see photos that ASRM is posting of the meeting.

SOCIAL MEDIA ETIQUETTE

All incoming tweets and photos are monitored by ASRM staff, and those that show up with the hashtag #ASRM2019 and that pass moderation will be posted to the Social Media Wall. In order for a tweet or picture to pass moderation, the following guidelines should be kept in mind:

- Messages must be about Congress content or activities.
- Messages cannot contain personal information.
- Messages cannot personally attack another person.
- Messages that ASRM considers unprofessional will not be displayed on the Social Media Wall.

We hope you'll join us in sharing the ASRM 2019 Scientific Congress!

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Ticketed Events



Ticketed events listed in the daily schedule are marked with a icon.

SUNDAY, OCTOBER 13, 2019

8:00 am - 3:45 pm

Society for Reproductive Endocrinology and Infertility (SREI) Members' Retreat

\$250 Fee



This course will focus on concrete, actionable techniques to keep clinical practice patterns current and implement quality control metrics to optimize patient care. These techniques can be applied to improve patient satisfaction, retention and grow your practice. This is a non-CME retreat for SREI members only.

3:00 pm - 5:00 pm

Personal Finance for Physicians Workshop

Stuart S. Howards, M.D.

University of Virginia

\$25 Fee



In this non-CME workshop, attendees will receive objective advice and education regarding personal finances (practice finances will not be covered). Topics will include the following: insurance, legal considerations, investments (general principles), retirement investments and planning, savings for college expenses, and estate planning.



6:00 pm

ASRM 75th Anniversary Gala

National Constitution Center

Tickets are \$500 per person with all proceeds benefiting the ASRM Research Institute. Purchase your ticket at www.asrmcongress.org when you register for the Congress. For larger groups or table sales, contact Cara Dawn Byford at cbyford@asrm.org.



DAILY

Resident Learning Sessions

Monday, Tuesday, and Wednesday

12:30 pm - 2:00 pm

(Lunch provided • registration required)



Expert Encounters



TUESDAY, OCTOBER 15, 2019

7:00 am - 8:45 am

Women's Council Breakfast

\$50 Fee



**roundtable
discussions**

Roundtable Luncheons

Monday, Tuesday, and Wednesday

12:15 pm - 1:15 pm

\$60 Fee/day



[See pages 172-179 for a list of roundtable titles and speakers](#)





expert encounters

These intimate, in-depth luncheon sessions are designed for interaction and exchange with recognized experts in their field. Bring your questions and discussion ideas, and be prepared to engage while you enjoy a boxed lunch during the session. Sign up now for this ticketed event with limited registration.

Monday, October 14, 2019
12:15 - 1:15 pm
 \$50 each, includes lunch

**Venture Capital, Private Equity, and Assisted
 Reproduction: Investing in Innovation in IVF**
 David Sable, M.D.
Columbia University



Tuesday, October 15, 2019
12:15 - 1:15 pm
 \$50 each, includes lunch

**Human Genome Editing:
 Roles and Responsibilities of Fertility Clinics**
 Françoise Baylis, C.M., O.N.S., Ph.D., F.R.S.C., F.C.A.H.S.
Dalhousie University



Wednesday, October 16, 2019
12:15 - 1:15 pm
 \$50 each, includes lunch

Male Infertility Case Discussion
 John Amory, M.D., M.P.H.
University of Washington





Spotlight@asrm2019

What you should know about the ASRM 2019 Scientific Congress & Expo

1. We've kept lunch! **Lunch** is a designated time, 12:15 pm - 1:15 pm, for either a ticketed lunchtime activity or for you to grab lunch and network with colleagues. Philadelphia offers lots of local spots to enjoy close to the convention center!
2. **Expert Encounters!** This is your opportunity to ask questions and have a dialogue with an expert in select topic areas. Space is limited and these will sell out so book your slot early!
3. Check out our **Roundtable discussions** – 40 Monday, 35 Tuesday, and 30 Wednesday!
4. We've brought back **Journal Club Global** – live at our ASRM 2019 Scientific Congress & Expo! The editorial team at *Fertility and Sterility* is pleased to announce a special **Journal Club Global** live from The ASRM 2019 Scientific Congress & Expo to discuss a recently published article. This exciting event will be streamed live on Saturday, October 12, 2019, at 5:15 pm (EST). Please join us live in Philadelphia or register to watch online.
5. Our fully interactive and very useful **meeting app** is a must-have for all Congress attendees. Complete your in-app profile and network with other attendees, locate your next session easily with directions from where you are to where you need to be, and play the **Expo Passport Game** in the app while on-site at the Congress.
6. **PosterPlus** – in addition to the poster sessions on Tuesday and Wednesday mornings, you can view short video presentations about the poster abstracts. Just click on the PosterPlus icon in the app and search by poster number, author name, or title!
7. **Video sessions** have been expanded! Now we have a **Video Program Prize Session** on Monday and two additional video sessions on Tuesday and Wednesday afternoons.
8. **75th Anniversary Gala** Tickets are \$500 per person with all proceeds benefiting the ASRM Research Institute. Purchase your ticket at www.asrmcongress.org when you register for the Congress. For larger groups or table sales, contact Cara Dawn Byford at cbyford@asrm.org.

SCHEDULE-AT-A-GLANCE

SPECIAL INTEREST GROUP MEMBERS' MEETINGS

SUNDAY, OCTOBER 13, 2019

5:15 pm - 6:00 pm	NPG Members' Meeting and APP Reception MHPG Members' Meeting Preimplantation Genetic Testing Special Interest Group (PGTSIG) Environment and Reproduction Special Interest Group (ERSIG)	Marriot 404 PCC 201A PCC 201B PCC 204A
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MONDAY, OCTOBER 14, 2019

5:30 pm - 7:00 pm	Male Reproductive Research Group (Andrology Research Consortium)	PCC 106A
5:45 pm - 6:30 pm	Uterine Transplant Members' Meeting (UTSIG) Androgen Excess Special Interest Group (AESIG) Menopause and Ovarian Insufficiency Special Interest Group (MOISIG) Access to Care(ATCSIG) Endometriosis Special Interest Group (EndoSIG) LGBTQ Special Interest Group (LGBTQSIG) Regenerative Medicine and Stem Cell Biology Special Interest Group (RMSCBSIG) Physician Scientists Special Interest Group (PSSIG) Pediatric and Adolescent Gynecology Special Interest Group (PAGSIG) Nutrition Special Interest Group (NutriSIG) Indian Special Interest Group (ISIG) Reproductive Immunology Special Interest Group (RISIG) Health Disparities Special Interest Group (HDSIG) Complementary and Integrative Medicine Special Interest Group (CIMSIG) Legal Professional Group Members Meeting	PCC 204A PCC103A PCC 104A PCC 103B PCC 105AB PCC 201A PCC 106B PCC 104B PCC 107AB PCC 108A PCC 108B PCC 112AB PCC 201C PCC 109AB PCC 201B
5:45 pm - 7:00 pm	SART Members' Meeting	PCC 103C
6:15 pm - 7:00 pm	Fertility Preservation Special Interest Group (FPSIG)	Marriot 403
6:15 pm - 8:00 pm	SRS Members' Meeting and Reception	Marriot 407

TUESDAY, OCTOBER 15, 2019

5:45 pm - 6:30 pm	Society for Reproductive Endocrinology and Infertility Early Pregnancy Special Interest Group (EPSIG) Turkish Special Interest Group (TSIG) Complex Family Planning Special Interest Group (CFPSIG) Chinese Special Interest Group (ChSIG) Imaging in Reproductive Medicine Special Interest Group (IRMSIG) Fibroids Special Interest Group (FSIG)	PCC 201A PCC 106B PCC 104B PCC 106A PCC 103B PCC 201C PCC 107AB
5:45 pm - 7:00 pm	GCPG Members' Meeting	Marriot Franklin 7
5:45 pm - 7:30 pm	SRBT Members' Meeting and Reception	Marriot Franklin 10
6:15 pm - 7:00 pm	ARM Members' Meeting	Marriot 408
7:00 pm - 9:00 pm	ASRM Professional Group Reception	Marriot Salon H



SCHEDULE-AT-A-GLANCE PRE-CONGRESS

SATURDAY, OCTOBER 12, 2019

8:15 am - 12:00 pm



1:15 pm - 5:00 pm

PC01 CME	Subchromosomal Variations and Mosaicism: Clinical Significance in Assisted Reproductive Technology (ART) Practices
PC02 CME	Fertility Preservation: 2019 and Beyond
PC03 CME	New Medical Information Involving Gamete Donors: Medical, Legal, and Ethical Considerations
PC04 CME	Cryostorage Management and the Lost Art of Assisted Reproductive Technology (ART)
PC05 CME	The Skinny on Obesity
PC06 CME	Strengthening Your Core Business While Achieving and Sustaining Growth
PC07 CME	Managing Assisted Reproductive Technology (ART) Patient Stress and Anxiety: Integrative Mind-body Approaches
PC08 CME	Early Pregnancy Loss: Maternal Factors in Implantation and Receptivity
PC09 CME	Gay Men Parenting: A Decade of Change in the Legal, Medical, Societal, and Psychological Landscape
PC10 CME	The Transgender Couple and Infertility: A Complicated Journey
5:15 pm	F&S Journal Club Live

SUNDAY, OCTOBER 13, 2019

PC11 CME	Reproductive Aging: Meeting the Challenges in Clinical and Laboratory Practice
PC12 CME	Next-generation Assisted Reproductive Technology (ART): Personalized Reproductive Medical Management
PC13 CME	First 20 Years of Stem Cells: From First Isolation to Clinical Use
PC14 CME	How to Optimize Assisted Reproductive Technology (ART) Success: From Lab to Clinic
PC15 CME	Testicular Biopsy: Converting Diagnostic Measures into Efficient Laboratory/Intracytoplasmic Sperm Injection (ICSI) Outcomes
PC16 CME	Polycystic Ovary Syndrome: at the Crossroads of Metabolism and Reproduction
PC17 CME	Transparency in Assisted Reproductive Technology (ART): Understanding the Global Legal, Ethical, and Psychosocial Issues of Information Disclosure in ART Today
PC18 CME	Challenging Reproductive Surgical Scenarios to Optimize Fertility
PC19 CME	Male Reproduction: the Road to Fertility with Bumps on the Way
PC20 CME	Endometriosis: from Diagnosis to Therapeutic Strategy (an ASRM-SEUD joint course)
PC21 CME	How to Debate the Scientific Literature With Real World Examples
PC22 CME	Why the Lab Is Fab: In Vitro Fertilization (IVF) through the Eyes of an Embryologist
PC23 CME	Dietary Supplements and Fertility: Emerging Evidence and Clinical Guidance
PC24 CME	Therapies for Uterine Fibroids
PC25 CME	Interprofessional Approach to Manage Reproductive Failure due to Elevated Sperm DNA Fragmentation: from Etiologies to Diagnostic Approaches and Management Strategies

SUNDAY, OCTOBER 13, 2019













8:00 am - 3:45 pm	Society for Reproductive Endocrinology and Infertility (SREI) Members' Retreat 
1:00 pm - 5:00 pm	Poster Setup
3:00 pm - 5:00 pm	Personal finance for Physicians Workshop 



6:00 pm ASRM 75th Anniversary Gala 
National Constitution Center















SCHEDULE-AT-A-GLANCE MONDAY, OCTOBER 14, 2019

7:00 am - 7:45 am	Continental Breakfast	Opening Ceremony Breakfast supported by 
7:00 am - 12:00 pm	Poster Setup	
7:45 am - 8:30 am	Opening Ceremony	
8:30 am - 9:15 am	Plenary 	President's Guest Lecture: Closing the Generational Gap Between Practitioners and Patients
9:15 am - 10:00 am	Plenary 	Camran Nezhat, M.D. Lectureship in Innovations in Medicine: Using Live Imaging to Reveal the Mechanisms That Form the Mammalian Embryo
10:00 am - 10:45 am	Break	Coffee Station supported by 
10:45 am - 12:15 pm	Scientific Congress Prize Paper Session 1 Oral Abstract Sessions	
11:00 am - 12:00 pm	MHPG Clinical Session	Research Isn't Just for Nerds: The Easy How-To's of Conducting Publishable Research in the Field of Reproductive Medicine
12:15 pm - 1:15 pm	Break/Lunch	Coffee Station supported by 
	Expert Encounter 	Venture Capital, Private Equity, and Assisted Reproduction: Investing in Innovation in IVF
	Roundtables 	RTM1 - RTM40
12:30 pm - 2:00 pm	Resident Learning Session 	
1:30 pm - 2:30 pm	Interactive Sessions 	Key Performance Indicators for the IVF Lab
		How do we reach the goal of universal insurance coverage for IVF?
		An integrative approach to treating dysmenorrhea associated with endometriosis
		No Satisfaction: Psychological and Medical Perspectives on Infertility and Sexual Dysfunction
		Moving Hysteroscopy from the Operating Room to the Office: Essentials for Success, Safety, and Patient Satisfaction
		Non-invasive preimplantation genetic testing (NIPGT): Is it applicable for ART practice?
		Counseling Patients on Mosaicism
1:30 pm - 2:30 pm	MHPG Clinical Session	Best Practices in Miscarriage Management
		The Trauma of Infertility and Pregnancy Loss: Helping Our Patients Heal
2:35 pm - 3:20 pm	Keynote 	Endowed Lecture: IVF as a Business
2:35 pm - 3:20 pm	Keynote 	The David and Rosemary Adamson Lecture on Excellence in Reproductive Medicine: Midnight's Broken Toll: Male Fertility and the Health of Future Generations
3:20 pm - 4:15 pm	Break	ASRM 75th Anniversary Celebration in the Expo Hall
4:15 pm - 5:30 pm	Symposia 	ABOG - Kenneth Ryan Ethics Symposium: Ethics in Embryo Research: In Consideration of Patients, Progeny and Professional Norms
		Are Specialized Sperm Function Tests Clinically Useful?
		New Updates on Therapies for Infertility in Polycystic Ovary Syndrome (PCOS)
		Management of Infertility in Low Resource Settings
		The New Modern Family: Family-building and co-parenting in the 21st Century
		Ovarian Tissue Cryopreservation and Transplantation: 20 Years of Progress
		How to Build High Functioning Teams in the Embryology Lab
		The Endometrium and Recurrent Pregnancy Loss
		ESHRE Symposium: Looking Beyond the XX Factor
		ISAR Symposium: Infertility & Tuberculosis
		MEFS Symposium: Controversies in ART
		SSR Symposium: Fertility Preservation- Existing and Emerging Fertility Preservations Options for Women and Men
4:15 pm - 5:30 pm	Video Program Prize Session	














SCHEDULE-AT-A-GLANCE TUESDAY, OCTOBER 15, 2019

6:30 am - 7:45 am	Poster Abstract Session and Continental Breakfast	
7:00 am - 8:00 am	Women's Council Breakfast 	
8:00 am - 8:30 am	Pre-Pleanary Special Session: Eye on AI: Artificial Intelligence in ART	
8:30 am - 9:15 am	Plenary 	Is Human Germline Editing Ethical?
9:15 am - 10:00 am	Plenary 	Planned Oocyte Cryopreservation: A Patient's Perspective
10:00 am - 10:45 am	Break	Coffee Station supported by 
10:45 am - 12:15 pm	Scientific Congress Prize Paper Session 2 Oral Abstract Sessions	
10:45 am - 12:15 pm	Surgical Video Tutorial: Innovations in Surgical Fertility Preservation	
12:15 pm - 1:15 pm	Break/Lunch	Coffee Station supported by 
	ASRM CMC Lunch Symposium	
	Expert Encounter 	Human Genome Editing: Roles and Responsibilities of Fertility Clinics
	Roundtables 	RTT01 - RTT35
12:30 pm - 2:00 pm	Resident Learning Session 	
1:30 pm - 2:30 pm	Interactive Sessions 	Medical and lifestyle treatment options in PCOS, more than just metformin
		Mosaicism Exposed – How to Handle Mosaic Embryos
		Beyond Disclosure: The Psychological, Social, Legal, and Genetic Implications of Intentional and Unintentional Donor Identity
		Insights from Vertebrate Model Reproductive Organ Regeneration: How Do We Unlock Our Regenerative Potential
		Home Sperm Testing: What is Available, Limitations and Opportunities
		Cervical Agenesis- Hysterectomy vs Utero-Vaginal Anastomosis
		Debate: Measuring AMH: A useful investigation in Recurrent Early Pregnancy Loss?
		In Vitro Activation for Primary Ovarian Insufficiency: Is it Ready for Prime Time?
1:30 pm - 2:30 pm	MHPG Clinical Session	To SKYPE or not to SKYPE: Ethics of third-party teleconsultations in the age of high-tech
2:45 pm - 3:30 pm	Keynote 	SRS Lecture: Innovation for Surgery: Surgical Robotics and The Fifth Generation – Non-Invasive Procedures
2:45 pm - 3:30 pm	Keynote 	Menopause Keynote Lecture: Future Directions on the Management of Menopause
3:30 pm - 4:15 pm	Break	
4:15 pm - 5:30 pm	Symposia 	KY Cha Symposium in Stem Cell Technology and Reproductive Medicine: Germline and Mitochondrial Gene Therapy
		Access to Fertility Preservation Care: From Policy to the Patient
		Quality Management in Human ART: Time to Revisit the Issues
		Implementation of an embryo donation program within your practice: medical, legal and psychological aspects
		RESPECT YOUR ENEMY: Marketing your practice within the SART Advertising Guidelines in a competitive market
		Fertility preservation should be offered to young patients with Klinefelter Syndrome
		Patient-Centered Research in Uterine Fibroids: The COMPARE-UF Experience/ Patient-centered Evidence for Fibroid Management--the COMPARE-UF Registry
		ASPIRE Symposium: New Approach in PCOS
		ALMER Symposium: Management of Mosaic Embryos after PGT-A in ART
		Oocyte Maturation In Vitro and Female Fertility Preservation
		FDA Symposium: Reproductive HCT/P Donor Eligibility and Compliance Update for Reproductive HCT/P Establishments
4:15 pm - 5:30 pm	Symposium	World Health Organization (WHO) Symposium: Global Call to Action to Enhance Fertility Care (A Non-CME Symposium)
4:15 pm - 5:30 pm	Video Session 2	

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SCHEDULE-AT-A-GLANCE WEDNESDAY, OCTOBER 16, 2019

6:30 am - 7:45 am	Poster Abstract Session and Continental Breakfast	
8:00 am - 8:45 am	Plenary 	American Urological Association Bruce Stewart Memorial Lecture: The Diagnosis & Treatment of Male Infertility: From the Bench to the Bedside
8:45 am - 9:15 am	ASRM Members' Meeting and Congress Prize Presentation	
9:15 am - 10:00 am	Plenary 	Herbert H. Thomas Lecture: Justice and the Privatization of Health Data
10:00 am - 10:45 am	Break	Coffee Station supported by 
10:45 am - 12:15 pm	Oral Abstract Sessions	
11:00 am - 12:00 pm	MHPG Clinical Session	Peeking Under The Hood: Psychological Testing with Sperm Donors
12:15 pm - 1:15 pm	Break/Lunch	Coffee Station supported by 
	Expert Encounter 	Male Infertility Case Discussion
	Roundtables 	RTW01 - RTW30
12:30 pm - 2:00 pm	Resident Learning Session 	
1:30 pm - 2:30 pm	Interactive Sessions 	Egg and Embryo Banking for Family Building Prior to Advancing Maternal Age: a Patient and Laboratory Perspective
		Repeated Implantation Failure: Can We Learn from Endometrial Evaluation?
		Reproductive Epigenetics and the Mighty Mitochondria
		Debate: Mullerian Classification: ESHRE vs ASRM - Which is Better?
		Environmental Chemicals and Reproduction: From Knowledge to Action
		Family Planning Fellows Showcase: Frontiers in Complex Family Planning
2:45 pm - 3:30 pm	Keynote 	Contraception Keynote Lecture: Male Contraception: Past, Present, and Future
2:45 pm - 3:30 pm	Keynote 	SSR Exchange Keynote Lecture: Motile Ciliopathy is a New Cause of Male Infertility
3:30 pm - 3:45 pm	Break	
3:45 pm - 5:00 pm	Symposia 	Howard and Georgeanna Jones Endowed Symposium on Assisted Reproductive Technology: Growing Gametes and Embryos: Where Are We Now
		Egg Freezing - Are you ready for prime time? Developing and Implementing an Egg Freezing Program in Your Practice
		Fertility Preservation for Transgender Youth: Special Considerations
		Novel therapies for the treatment of Asherman syndrome
		Risk Management: Patient Education, Compliance and Consenting.
		AMMR Symposium: Strategies in Ovarian Stimulation Protocols to Improve Results in Assisted Reproduction
		CSRM Symposium: Embryo Culture in Vitro and Development
3:45 pm - 5:00 pm	Video Session 3	

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2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

Daily Schedule Key to Abbreviations

Affiliated Societies

SART	Society for Assisted Reproductive Technology
SMRU	Society for Male Reproduction and Urology
SRBT	Society of Reproductive Biologists and Technologists
SREI	Society for Reproductive Endocrinology and Infertility
SRS	Society of Reproductive Surgeons

Professional Groups

ARM	Association of Reproductive Managers
GCPG	Genetic Counseling Professional Group
LPG	Legal Professional Group
MHPG	Mental Health Professional Group
NPG	Nurses' Professional Group

Special Interest Groups

ATCSIG	Access to Care Special Interest Group
AESIG	Androgen Excess Special Interest Group
CIMSIG	Complementary and Integrative Medicine Special Interest Group
CFPSIG	Complex Family Planning Special Interest Group
ChSIG	Chinese Special Interest Group
EndoSIG	Endometriosis Special Interest Group
EPSIG	Early Pregnancy Special Interest Group
ERSIG	Environment and Reproduction Special Interest Group
FPSIG	Fertility Preservation Special Interest Group
FSIG	Fibroids Special Interest Group
HDSIG	Health Disparities Special Interest Group
ISIG	Indian Special Interest Group
IRMSIG	Imaging in Reproductive Medicine Special Interest Group
LGBTQSIG	LGBTQ Special Interest Group
MOISIG	Menopause and Ovarian Insufficiency Special Interest Group
NutriSIG	Nutrition Special Interest Group
PAGSIG	Pediatric and Adolescent Gynecology Special Interest Group
PGTSIG	Preimplantation Genetic Testing Special Interest Group
PSSIG	Physician-Scientists' Special Interest Group
RISIG	Reproductive Immunology Special Interest Group
RMSCBSIG	Regenerative Medicine and Stem Cell Biology Special Interest Group
TSIG	Turkish Special Interest Group
UTSIG	Uterine Transplant Special Interest Group (Forming)
WC	Women's Council

Partner Groups

AE-PCOS Society	Androgen Excess and Polycystic Ovary Syndrome Society
ALMER	Latin American Association for Reproductive Medicine
AMMR	Mexican Association of Reproductive Medicine
ASPIRE	Asia Pacific Initiative in Reproduction
CFAS	Canadian Fertility and Andrology Society
CSRM	Chinese Society of Reproductive Medicine
ESHRE	European Society of Human Reproduction and Embryology
ISAR	Indian Society for Assisted Reproduction
JSAR	Japan Society of Assisted Reproduction
MEFS	Middle East Fertility Society
SSR	Society for the Study of Reproduction



Indicates a ticket event



Indicates Audience Response System (ARS) will be used during session

Abstract Presenters and Session Speakers: Don't forget to stop by the on-site **Speaker Ready Room** to upload presentations, trouble-shoot with technicians, view your slides and familiarize yourself with the AV equipment, or pick up your ribbons! **Speaker Ready Room** is located in PCC204BC.

SPEAKER READY ROOM HOURS OF OPERATION

Friday, 10/11
2:00 pm – 6:00 pm

Saturday, 10/12
7:00 am – 6:00 pm

Sunday, 10/13
7:00 am – 5:00 pm

Monday, 10/14
7:00 am – 5:00 pm

Tuesday, 10/15
7:00 am – 5:00 pm

Wednesday, 10/16
7:00 am – 4:00 pm



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

SUNDAY, OCTOBER 13, 2019

8:00 am - 3:45 pm

SREI Members' Retreat



5:15 pm - 6:00 pm

Members' Meetings

- NPG Members' Meeting and APP Reception
- MHPG Members' Meeting
- Preimplantation Genetic Testing Special Interest Group
- Environment and Reproduction Special Interest Group

1:00 pm - 5:00 pm

Poster Setup

3:00 pm - 5:00 pm

Workshop

Personal Finance for Physicians

Stuart S. Howards, M.D.
University of Virginia



6:00 pm

ASRM 75th Anniversary Gala

National Constitution Center



MONDAY, OCTOBER 14, 2019

7:00 am - 7:45 am

Breakfast

**Opening Ceremony
Continental Breakfast**

Opening Ceremony
Breakfast supported by

7:45 am - 8:30 am

Opening Ceremony

Opening Ceremony

8:30 am - 9:15 am

Plenary

Plenary

President's Guest Lecture: Closing the Generational Gap Between Practitioners and Patients

Endowed by a 1987 grant from Ortho Women's Health
Ryan Jenkins
Speaker, Author, and Inc. Magazine Columnist



9:15 am - 10:00 am

Plenary

Plenary

Camran Nezhat, M.D. Lectureship in Innovations in Medicine: Using Live Imaging to Reveal the Mechanisms That Form the Mammalian Embryo

Endowed by a 2011 Gift from Camran Nezhat, M.D. Dr. Camran Nezhat pioneered techniques of video-assisted endoscopic surgery, which revolutionized modern day surgery. He along with his brothers, Drs. Farr and Ceana Nezhat, performed some of the most advanced procedures with these techniques for the first time, thus opening the vistas for endoscopic surgeons all over the world.
Nicholas Plachta, Ph.D.
Institute for Molecular and Cell Biology, A*STAR



10:00 am - 10:45 am

Break

Break

Coffee Station supported by

10:45 am - 12:15 pm

Oral Abstract Sessions

**Scientific Congress Prize Paper Session 1
Oral Abstract Sessions**

11:00 am - 12:00 pm

MHPG Clinical Session

MHPG Clinical Session (Research)

Research Isn't Just for Nerds: The Easy How-To's of Conducting Publishable Research in the Field of Reproductive Medicine

Alice Domar, Ph.D.

Boston IVF

Lauri Pasch, Ph.D.

University of California, San Francisco



12:15 pm - 1:15 pm

Break/Lunch Sessions

Break/Lunch

Coffee Station supported by

Expert Encounter

Venture Capital, Private Equity, and Assisted Reproduction: Investing in Innovation in IVF

David Sable, M.D.

Columbia University



Roundtables



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

12:30 pm - 2:00 pm

Resident Learning Session

Resident Learning Session: Team-based Learning

Divya Kelath Shah, M.D., M.M.E., *University of Pennsylvania*

Francoise Baylis, C.M., O.N.S., Ph.D., F.R.S.C., F.L.A.H.S., *Dalhousie University*

1:30 pm - 2:30 pm

Interactive Sessions

Interactive Session

Key Performance Indicators for the IVF Lab

Amy Sparks, Ph.D. (Chair)

University of Iowa

Alison Bartolucci, M.S.

University of Connecticut

Dean Morbeck, Ph.D., M.B.A., H.C.L.D.

Fertility Associates, Auckland, NZ

CME 

Steven R. Lindheim, M.D. (Chair)

Write State University

Stefano Bettocchi, M.D.

University of Bari

Keith Isaacson, M.D.

Harvard Medical School

Brad Senstra, M.H.A.

Seattle Reproductive Medicine

Interactive Session

How Do We Reach the Goal of Universal Insurance Coverage for IVF?

Jacqueline Ho, M.D. (Chair)

University of Southern California

Sean Tipton, M.A.

ASRM

Barbara Collura, M.A.

RESOLVE

CME 

Interactive Session

Non-invasive Preimplantation Genetic Testing (NIPGT): Is it Applicable for ART Practice?

Svetlana Rechitsky, Ph.D. (Chair)

Reproductive Genetic Innovations

Dagan Wells, Ph.D., I.V.I., R.M.A.

University of Oxford

Carlos Rubio, Ph.D.

Igenomix

CME

Interactive Session

An Integrative Approach to Treating Dysmenorrhea Associated with Endometriosis

Peter Harvey, M.B.A., L.Ac., F.A.B.O.R.M. (Chair)

Eastern Healing, Inc.

Charles E. Miller M.D.

The Advanced IVF Institute

Holly R. Harris, Sc.D., M.P.H.

Fred Hutchinson Cancer Research Center

CME

Interactive Session

Counseling Patients on Mosaicism

JoRene Bigler-Vollman, R.N., M.S.N. (Chair)

Fertility Centers of Illinois

Lisa A. Rinehart, J.D., R.N.

LegalCare Consulting, Inc.

Andria G. Besser, M.S., C.G.C

New York University Langone Fertility Center

CME

Interactive Session

No Satisfaction: Psychological and Medical Perspectives on Infertility and Sexual Dysfunction

William D. Petok, Ph.D. (Chair)

Thomas Jefferson University

Elizabeth A. Grill, Psy.D.

Weill Cornell Medical Center

Robert D. Oates, M.D.

Boston University School of Medicine

Kim Bergman, Ph.D.

Growing Generations

CME

Interactive Session

Best Practices in Miscarriage Management

Courtney Schreiber, M.D. (Chair)

University of Pennsylvania

Sarah Horvath, M.D.

University of Pennsylvania

Sarita Sonalkar, M.D., M.P.H.

University of Pennsylvania

Vanessa Dalton, M.D., M.P.H.

University of Michigan

CME 

Interactive Session

Moving Hysteroscopy from the Operating Room to the Office: Essentials for Success, Safety, and Patient Satisfaction

CME

MHPG Clinical Session: The Trauma of Infertility and Pregnancy Loss: Helping Our Patients Heal

Janet Jaffe, Ph.D.

Center for Reproductive Psychology

Karen Hall, Ph.D.

Private Practice

Julie Bindeman, Psy.D.

Private Practice



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

2:35 pm - 3:20 pm

Lectures

Keynote

IVF as a Business

Endowed by a 1990 grant from TAP Pharmaceutical
David Sable, M.D.
Columbia University

CME

3:20 pm - 4:15 pm

Break

Break

Join us for this special break to celebrate ASRM's 75th Anniversary with a festive toast and cake.



Keynote

The David and Rosemary Adamson Lecture on Excellence in Reproductive Medicine: Midnight's Broken Toll: Male Fertility and the Health of Future Generations

Endowed by Advanced Reproductive Care, Inc. and Rosemary and David Adamson, M.D.
R. John Aitken, Ph.D., Sc.D., F.R.S.E., F.R.S.N., F.A.H.M.S., F.A.A.
University of Newcastle

CME ARS

4:15 pm - 5:30 pm

Symposia

Symposium

ABOG - Kenneth J. Ryan Ethics Symposium: Ethics in Embryo Research: In Consideration of Patients, Progeny and Professional Norms

Supported by a 2013 endowment from the American Board of Obstetrics and Gynecology
Alto Charo, J.D. (Chair)
University of Wisconsin - Madison
Ben Hurlbut, Ph.D.
Arizona State University
Feng Zhang, Ph.D.
The Broad Institute

CME

Symposium

Management of Infertility in Low Resource Settings

Christopher Herndon, M.D. (Co-chair)
University of Washington
Julia V. Johnson, M.D. (Co-chair)
University of Massachusetts Medical School
Sheryl Vanderpoel, Ph.D.
Population Council, W.H.O. (retired)
Kevin J. Doody, M.D.
CARE Fertility
Melissa Harmon, R.N.
CARE Fertility

CME ARS

Symposium

Are Specialized Sperm Function Tests Clinically Useful?

Armand Zini, M.D., F.R.C.S.C. (Chair)
McGill University
Sandro Esteves, M.D., Ph.D., M.Sc.
Campinas, Brazil
Douglas T. Carrell, Ph.D.
University of Utah School of Medicine

CME ARS

Symposium

The New Modern Family: Family-building and Co-parenting in the 21st Century

Linda Kondilis, Psy.D. (Chair)
Private Practice
Laurie McKenzie, M.D.
Baylor College of Medicine
Heather Ross, J.D.
Ross & Zuckerman, LLP

CME ARS

Symposium

New Updates on Therapies for Infertility in Polycystic Ovary Syndrome (PCOS)

Juha Tapanainen, M.D., Ph.D. (Chair)
University of Helsinki, Finland
Richard S. Legro, M.D.
Penn State College of Medicine
Joop B.E. Laven, M.D., Ph.D.
Erasmus University

CME

Symposium

Ovarian Tissue Cryopreservation and Transplantation: 20 Years of Progress

Kutluk H. Oktay, M.D., Ph.D. (Chair)
Yale University School of Medicine
Isabelle Demeestere, M.D., Ph.D.
University Libre de Bruxelles
Nao Suzuki, M.D., Ph.D.
Marianna University

CME ARS



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4:15 pm - 5:30 pm

Symposia

Symposium

How to Build High Functioning Teams in the Embryology Lab

Blake R. Welch, M.B.A. (Chair)
Chicago IVF
David Ball, Ph.D.
Seattle Reproductive Medicine

CME

Symposium

SSR Symposium: Fertility Preservation- Existing and Emerging Fertility Preservations Options for Women and Men

Mary B. Zelinski, Ph.D. (Chair)
Oregon Health & Sciences University
So-Youn Kim, PhD
University of Nebraska Medical Center
Kyle E. Orwig, Ph.D.
University of Pittsburgh

CME

Symposium

The Endometrium and Recurrent Pregnancy Loss

Sony Sierra, M.D., M.Sc., F.R.C.S.C. (Chair)
TRIO Fertility
Steven L. Young, M.D., Ph.D.
UNC School of Medicine
Arri Coomarasamy, Ph.D.
University of Birmingham

CME

4:15 pm - 5:30 pm

Video Session

Video Program Prize Session

5:30 pm - 7:00 pm

Members' Meeting

Male Reproductive Research Group
(Andrology Research Consortium)

5:45 pm - 6:30 pm

Members' Meetings

- Uterine Transplant Members' Meeting
- Androgen Excess Special Interest Group
- Menopause and Ovarian Insufficiency Special Interest Group
- Access to Care
- Endometriosis Special Interest Group
- LGBTQ Special Interest Group
- Regenerative Medicine and Stem Cell Biology Special Interest Group
- Physician Scientists Special Interest Group
- Pediatric and Adolescent Gynecology Special Interest Group
- Nutrition Special Interest Group
- Indian Special Interest Group
- Reproductive Immunology Special Interest Group
- Health Disparities Special Interest Group
- Complementary and Integrative Medicine Special Interest Group
- Legal Professional Group Members Meeting

5:45 pm - 7:00 pm

Members' Meeting

- SART Members' Meeting

6:15 pm - 7:00 pm

Members' Meeting

- Fertility Preservation Special Interest Group

6:15 pm - 8:00 pm

Members' Meeting

- SRS Members' Meeting and Reception

Symposium

ESHRE Symposium: Looking Beyond the XX Factor

Jackson Kirkman-Brown, M.B.E. (Chair)
University of Birmingham
Adelheid Soubry, Ph.D.
University Leuven

CME

Symposium

ISAR Symposium: Genital Kochs and Infertility

Hrishikesh Pai, M.D., M.Sc. (Chair)
Bloom IVF Lilavati Hospital
Jaideep Malhotra, M.B.B.S., M.D.
Rainbow IVF
Madhuri Patil, M.D.
Patil Fertility and Endoscopic Clinic
Firuza Parikh, M.D., D.N.B., Ph.D.
Jaslok Hospital and Research Centre
Rishma Dhillon Pai, M.D.
Lilavati Hospital

CME

Symposium

MEFS Symposium: Controversies in ART

Botros Rizk, M.D., M.A., F.R.C.O.G.,
F.R.C.S.(C), H.C.L.D., F.A.C.O.G., F.A.C.S. (Chair)
University of South Alabama
Richard J. Paulson, M.D., M.S.
University of Southern California
Bruce Shapiro, M.D., Ph.D., H.C.L.D.
Fertility Center of Las Vegas

CME 

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2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

TUESDAY, OCTOBER 15, 2019

6:30 am - 7:45 am Poster Session/Breakfast

Poster Abstract Session & Continental Breakfast

7:00 am - 8:00 am

Women's Council Breakfast



8:00 am - 8:30 am

Plenary

Pre-Plenary Special Session

Eye on AI: Artificial Intelligence in ART

Cristina Hickman, Ph.D.

Imperial College

Nikica Zaninovic, Ph.D.

Weill Cornell Medicine

8:30 am - 9:15 am

Plenary

Plenary

Is Human Germline Editing Ethical?

Endowed by a 1990 grant from Astra-Zeneca

Françoise Baylis, C.M., O.N.S., Ph.D., FRSC, FCAHS

Dalhousie University



9:15 am - 10:00 am

Plenary

Plenary

Planned Oocyte Cryopreservation: A Patient's Perspective

Endowed by a 1992 grant from Wyeth.

Brigitte K. Adams

Eggsurance



10:00 am - 10:45 am

Break

Break

Coffee Station supported by



10:45 am - 12:15 pm

Interactive Session

Surgical Video Tutorial:

Innovations in Surgical Fertility Preservation

John C. Petrozza, M.D. (Chair)

Massachusetts General Hospital

Kutluck H. Oktay, M.D., Ph.D.

Yale University

Mindy S. Christianson, M.D.

Johns Hopkins University



10:45 am - 12:15 pm

Oral Sessions

Scientific Congress Prize Paper Session 2

Oral Abstract Sessions

12:15 pm - 1:15 pm

Break/Lunch Sessions

ASRM CMC Lunch Symposium

Break/Lunch

Coffee Station supported by



Expert Encounter

Human Genome Editing: Roles and Responsibilities of Fertility Clinics

Françoise Baylis, C.M., O.N.S., Ph.D., F.R.S.C., F.C.A.H.S.

Dalhousie University



Roundtables



12:30 pm - 2:00 pm

Resident Learning Session

Resident Learning Session:

Case Discussions

Ranjith Ramasamy, M.D.

University of Miami

Elizabeth A. Stewart, M.D.

Mayo Clinic



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

1:30 pm - 2:30 pm

Interactive Sessions

Interactive Session

CME 

Medical and Lifestyle Treatment Options in PCOS, More Than Just Metformin

Nanette Santoro, M.D. (Chair)
University of Colorado Denver
Anuja Dokras, M.D., Ph.D.
University of Pennsylvania Perelman School of Medicine
Heather G. Huddleston, M.D.
University of California, San Francisco

Interactive Session

CME 

Mosaicism Exposed – How to Handle Mosaic Embryos

Timothy N. Hickman, M.D. (Chair)
Houston IVF
Mandy Katz-Jaffe, Ph.D.
Colorado Center for Reproductive Medicine
Cassandra Catoni, M.S., C.G.C.
Ovation Fertility
Mike Large, Ph.D.
CooperSurgical

Interactive Session

CME 

Beyond Disclosure: The Psychological, Social, Legal, and Genetic Implications of Intentional and Unintentional Donor Identity

Claudia Pascale, Ph.D. (Chair)
Institute for Reproductive Medicine and Science at Saint Barnabas
Judith Daar, J.D.
Chase College
Heidi Hayes, M.A.
California Cryobank
Neha Kumar, Sc.M.
Invitae

Interactive Session

CME

Insights from Vertebrate Model Reproductive Organ Regeneration: How Do We Unlock Our Regenerative Potential

Kyle E. Orwig, Ph.D. (Chair)
University of Pittsburgh
James R. Monaghan, Ph.D.
Northeastern University

Interactive Session

CME

Home Sperm Testing: What is Available, Limitations and Opportunities

Natan Bar-Chama, M.D. (Chair)
Reproductive Associates of New York
Michael Eisenberg, M.D.
Stanford University
Benjamin Leader, M.D., Ph.D.
ReproSource Inc.

Interactive Session

CME 

Cervical Agenesis- Hysterectomy vs Utero-Vaginal Anastomosis

Stephanie J. Estes, M.D. (Chair)
Penn State
Bala Bhagavath, M.B.B.S.
University of Rochester
Leslie Coker Appiah, M.D.
University of Colorado Denver School of Medicine – Anschutz Medical Campus

Interactive Session

CME

Debate: Measuring AMH: A Useful Investigation in Recurrent Early Pregnancy Loss?

Paul Robert Brezina, M.D., M.B.A. (Chair)
Fertility Associates of Memphis
A. Musa Zamah, M.D., Ph.D.
The University of Chicago
Sasha A. Krieg, M.D., Ph.D.
Oregon Health and Science University

Interactive Session

CME

In Vitro Activation for Primary Ovarian Insufficiency: Is it Ready for Prime Time?

Mindy Christianson, M.D. (Chair)
Johns Hopkins University
James H. Segars, Jr., M.D., F.A.C.O.G.
Johns Hopkins University
Cesar Diaz-Garcia, M.D., M.P.H.
IVI London

MHPG Clinical Session



MHPG Clinical Session — To SKYPE or Not to SKYPE: Ethics of Third-party Teleconsultations in the Age of High-tech

Lauren Magalnick Berman, Ph.D.
Fertility Psychology Center of Atlanta
Lindsay Childress-Beatty, J.D., Ph.D.
American Psychological Association



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

2:45 pm - 3:30 pm

Lectures

Lecture

CME

SRS Lecture: Innovation for Surgery: Surgical Robotics and The Fifth Generation – Non-Invasive Procedures

Endowed by a 1990 grant from Ethicon

Endo-Surgery, Inc.

Richard M. Satava, M.D., F.A.C.S.

University of Washington

Lecture

CME

Menopause Keynote Lecture: Future Directions on the Management of Menopause

Rogerio A. Lobo, M.D.

Columbia University

4:15 pm - 5:30 pm

Symposia

Symposium

CME

KY Cha Symposium in Stem Cell Technology and Reproductive Medicine: Germline and Mitochondrial Gene Therapy

Supported by the Asia-Pacific Biomedical Research Foundation

Charles A. Easley, Ph.D., M.S. (Chair)

University of Georgia

Ina Dobrinski, Ph.D., D.V.M.

University of Calgary

Hugh S. Taylor, M.D.

Yale University

Symposium

CME

Implementation of an Embryo Donation Program Within Your Practice: Medical, Legal and Psychological Aspects

Eric A. Widra, M.D. (Chair)

Shady Grove Fertility Center

Angela K. Lawson, Ph.D.

Northwestern University

Nidhi Desai, J.D.

Desai & Miller

Symposium

CME

Access to Fertility Preservation Care: From Policy to the Patient

Akanksha Mehta, M.D., M.S. (Chair)

Emory University School of Medicine

H. Irene Su, M.D., M.S.C.E.

University of California

Joyce Reinecke, J.D.

Alliance for Fertility Preservation

Jim M. Dupree, IV, M.D., M.P.H.

University of Michigan

Symposium

CME ARS

RESPECT YOUR ENEMY: Marketing Your Practice Within the SART Advertising Guidelines in a Competitive Market

Sara Mooney, B.A. (Chair)

Seattle Reproductive Medicine

Amy Hall, R.Ph.

Catalyst Healthcare Marketing

Paul C. Lin, M.D.

Seattle Reproductive Medicine

Symposium

CME ARS

Quality Management in Human ART: Time to Revisit the Issues

Barry R. Behr, Ph.D. (Chair)

Stanford Fertility and Reproductive Medicine Center

Mitchel C. Schiewe, Ph.D., M.S.

Ovation Fertility

Dawn A. Kelk, Ph.D., H.C.L.D.

Yale Fertility Center

Symposium

CME ARS

Fertility Trajectory of Klinefelter Syndrome: From Childhood, Adolescence to Adulthood

Peter Chan M.D., C.M., M.Sc., F.R.C.S.(C), F.A.C.S (Chair)

McGill University

Robert D. Oates, M.D.

Boston University

Darius A. Paduch, M.D., Ph.D.

Weill Cornell Medical College



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

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4:15 pm - 5:30 pm

Symposia

Symposium

Patient-Centered Research in Uterine Fibroids: The COMPARE-UF Experience

Elizabeth A. Stewart, M.D. (Chair)

Mayo Clinic

Sateria Venable, B.Arch.

The Fibroid Foundation

Wanda K Nicholson, M.D., M.B.A., M.P.H.

University of North Carolina

Evan Myers, M.D., M.P.H.

Duke University

CME 

Ping He, M.D.

Food and Drug Administration, Center for Biologic Evaluation and Research

Symposium

ASPIRE Symposium: New Approach in PCOS

Peng Cheang Wong, M.B.B.S., F.R.C.O.G., F.A.M.S. (Chair)

Yong Loo Lin School of Medicine

Duru Shah, M.D. (India)

Gynaecworld Assisted Fertility Center

Thi Ngoc Lan Vuong, M.D., Ph.D. (Indonesia)

University of Medicine at Ho Chi Minh

Budi Wiweko, M.D., Ph.D.

University of Indonesia

CME 

Symposium

World Health Organization (WHO) Symposium: Global Call to Action to Enhance Fertility Care A Non-CME Symposium

James Kiarie, M.B.Ch.B., M.M.E.D (Chair)

World Health Organization

Rachel Snow, Sc.D.

United Nations Population Fund

Dr. Kittipong Sae-Jeng

Thailand Department of Health

Oladapo A. Ashiru, O.F.R., M.B.B.S., M.Sc., Ph.D.

Medical ART Center, Nigeria

David Ntirushwa, M.D.

University Teaching Hospital of Kigali

Dmitry Kissin, M.D., M.P.H.

Centers for Disease Control and Prevention



Symposium

ALMER Symposium: Management of Mosaic Embryos After PGT-A in ART

Newton Busso, M.D., Ph.D. (Chair)

Projeto Alfa

Benjamin Sandler, M.D.

Reproductive Medicine Associates of New York

Carlos E. Sueldo, M.D.

University of California, San Francisco

CME

Symposium

Oocyte Maturation In Vitro and Female Fertility Preservation

Rong Li, M.D., Ph.D. (Chair)

Peking University Third Hospital

Xiaoyan Liang, M.D., Ph.D.

The 6th affiliated Hospital of Sun Yat-sen University

Heng-yu Fan, Ph.D.

Life Sciences Institute, Zhejiang University

CME

Symposium

FDA Symposium: Reproductive HCT/P Donor Eligibility and Compliance Update for Reproductive HCT/P Establishments

Simone P. Porter, M.D., M.P.H. (Chair)

Food and Drug Administration, Center for Biologic Evaluation and Research

CME

4:15 pm - 5:30 pm

Video Session

Video Session 2

5:45 pm - 6:30 pm

Members' Meetings

- Society for Reproductive Endocrinology and Infertility
- Early Pregnancy Special Interest Group
- Turkish Special Interest Group
- Complex Family Planning Special Interest Group
- Chinese Special Interest Group
- Imaging in Reproductive Medicine Special Interest Group
- Fibroids Special Interest Group

5:45 pm - 7:00 pm

Members' Meeting

- Genetic Counseling Professional Group

5:45 pm - 6:30 pm

Members' Meeting

- SRBT Members' Meeting and Reception

6:15 pm - 7:00 pm

Members' Meetings

- ARM Members' Meeting

7:00 pm - 9:00 pm

Members' Meetings

- ASRM Professional Group Reception



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

WEDNESDAY, OCTOBER 16, 2019

6:30 am - 7:45 am Poster Session/Breakfast

Poster Abstract Session & Continental Breakfast

8:00 am - 8:45 am Lecture

Lecture **CME**
American Urological Association Bruce Stewart Memorial Lecture: The Diagnosis & Treatment of Male Infertility: From the Bench to the Bedside
Supported by a grant from the American Urological Association
 Larry I. Lipshultz, M.D.
 Baylor College of Medicine

8:45 am - 9:15 am Members' Meeting

ASRM Members' Meeting & Congress Prize Presentation

9:15 am - 10:00 am Plenary

Plenary **CME**
Herbert H. Thomas Lecture: Justice and the Privatization of Health Data
Endowed by a 1992 grant from EMD Serono, Inc.
 Kayte Spector-Bagdady, J.D.
 University of Michigan


10:00 am - 10:45 am Break

Break Coffee Station supported by 

10:45 am - 12:15 pm Oral Abstract Sessions


Oral Abstract Sessions

11:00 am - 12:00 pm MHPG Clinical Session

MHPG Clinical Session **CME** 
MHPG Clinical Session: Peeking Under The Hood: Psychological Testing with Sperm Donors
 Andrea Braverman, Ph.D.
 Jefferson OBGYN
 John Kurtz, Ph.D.
 Villanova University


12:15 pm - 1:15 pm Break/Lunch Sessions

Break/Lunch Coffee Station supported by 

Expert Encounter 
Male Infertility Case Discussion
 John Amory, M.D., M.P.H.
 University of Washington

Roundtables 

12:30 pm - 2:00 pm Resident Learning Session

Resident Learning Session: 
Interactive Learning Pedagogies and Fellowship Panel Discussion
 Ann J. Davis, M.D.
 Dartmouth Medical School



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

1:30 pm - 2:30 pm

Interactive Sessions

Interactive Session

CME 

Egg and Embryo Banking for Family Building Prior to Advancing Maternal Age: A Patient and Laboratory Perspective

Jennifer Mersereau, M.D. (Chair)
UNC Fertility
Kara N. Goldman, M.D.
Northwestern University
Sangita K. Jindal, Ph.D.
Montefiore Institute for Reproductive Medicine and Health

Interactive Session

CME

Repeated Implantation Failure – Can We Learn From Endometrial Evaluation?

Svetlana Dambaeva, M.D., Ph.D. (Chair)
Rosalind Franklin University of Medicine and Science
Emilio Francisco Fernandez, M.D.
Clinical Las Condes
Udo R. Markert, M.D.
Universitäts Klinikum

Interactive Session

CME 

Reproductive Epigenetics and the Mighty Mitochondria

Paul C. Magarelli, M.D., Ph.D. (Chair)
HQA Fertility Centers
Kelly Lee Whiteside, L.A.C., D.pl.O.M., F.A.B.O.R.M.
Harmony Health, Inc.

Interactive Session

CME 

Debate: Mullerian Classification: ESHRE vs ASRM - Which is Better?

John C. Petrozza, M.D. (Chair)
Massachusetts General Hospital
Samantha Pfeifer, M.D.
Weill Medical College of Cornell University
Artur Ludwin, M.D., Ph.D.
Jagiellonian University

Interactive Session

CME 

Environmental Chemicals and Reproduction: From Knowledge to Action

Jorge E. Chavarro, M.D., Sc.D. (Chair)
Harvard University
Audrey J. Gaskins, Sc.D.
Emory University
Linda Guidice, M.D., Ph.D.
University of California, San Francisco

Interactive Session

CME

Family Planning Fellows Showcase: Frontiers in Complex Family Planning

Maureen Baldwin, M.D., M.P.H.
Oregon Health and Science University
Andrea H. Roe, M.D., M.P.H.
University of Pennsylvania
Erica P. Cahill, M.D., M.S.
Stanford University
Nora Doty, M.D., M.C.R.
Oregon Health and Science University

2:45 pm - 3:30 pm

Lectures

Lecture

Contraception Keynote Lecture: Male Contraception: Past, Present, and Future

John K. Amory, M.D., M.P.H.
University of Washington

CME

Lecture

CME 

SSR Exchange Keynote Lecture: Motile Ciliopathy is a New Cause of Male Infertility

Wei Yan, M.D., Ph.D.
University of Nevada



2019 SCIENTIFIC CONGRESS DAILY SCHEDULE

PLENARIES, LECTURES, AND SYMPOSIA WILL BE TRANSLATED SIMULTANEOUSLY INTO SPANISH AND MANDARIN CHINESE FOR MEMBERS OF THE AUDIENCE IN EXHIBIT HALL C

3:45 pm - 5:00 pm

Symposia

Symposium

CME

Howard and Georgeanna Jones Endowed Symposium on Assisted Reproductive Technology: Growing Gametes and Embryos: Where Are We Now
Endowed by a 2010 educational grant from EMD Serono, Inc.
 Rebecca Krisher, Ph.D. (Chair)
Colorado Center for Reproductive Medicine
 Michelle Lane, Ph.D.
Monash IVF Group
 T. Arthur Chang, Ph.D., E.L.D., H.C.L.D.
University of Texas

Symposium

CME

Egg Freezing - Are You Ready for Prime Time? Developing and Implementing an Egg Freezing Program in Your Practice: What Does the Science Say?
 Paul C. Lin, M.D. (Chair)
Seattle Reproductive Medicine
 Caroline McCaffrey, Ph.D., H.C.L.D.
New York University Fertility Center
 Tamara M. Tobias, N.P.
Seattle Reproductive Medicine
 Kimball O. Pomeroy, Ph.D.
The World Egg Bank

Symposium

CME

Fertility Preservation for Transgender Youth: Special Considerations
 Molly B Moravek, M.D., M.P.H. (Chair)
Michigan Medicine
 James F. Smith, M.D.
University of California
 Gwendolyn P. Quinn, Ph.D.
New York University
 Leena Nahata, M.D.
Nationwide Children's Hospital

Symposium

CME

Novel therapies for the Treatment of Asherman Syndrome
 Fady I. Sharara, M.D. (Chair)
Virginia Center for Reproductive Medicine
 James Liu, M.D.
UH MacDonald Women's Hospital
 Carlos Simon, M.D., Ph.D.
University of Valencia

Symposium

CME



Risk Management: Patient Education, Compliance and Consenting
 Lindsey McBain, B.A. (Chair)
IVI RMA NJ
 Heather Ross, J.D.
Ross and Zuckerman
 Brad Senstra, M.H.A.
Seattle Reproductive Medicine
 Sue Jasulaitis, M.S.N., R.N.
Fertility Centers of Illinois

Symposium

CME

AMMR Symposium: Strategies in Ovarian Stimulation Protocols to Improve Results in Assisted Reproduction
 Jose Luis Castro Lopez, M.D. (Chair)
Prodigy
 Antonio M. Gutierrez, M.D.
Instituto de Ciencias en Reproduccion Humana
 Efrain Perez Pena, M.D.
Instituto de Ciencias en Reproduccion Humana

Symposium

CME

CSRM Symposium: Embryo Culture in Vitro and Development
 Deng Chengyen (Co-chair)
Peking Union Medical College Hospital
 Zhou Canquan (Co-chair)
The First Affiliated Hospital of Sun Yatsen University
 Sun Yingpu, M.D., Ph.D.
The First Affiliated Hospital of Zhengzon University
 Huang Guoning
Chongqing Genetic and Reproductive Institute
 Sun Haixiang, M.D., Ph.D.
The First Affiliated Hospital of Ranjing University Medical School

3:45 pm - 5:00 pm

Video Session

Video Session 3





Your company is invited to become a member of the ASRM Corporate Member Council

The Mission of the ASRM Corporate Member Council reflects a partnership between the ASRM Officers and Directors and the Corporate Members and is designed to facilitate open and ongoing dialogue between the two; to identify and maximize common interests related to reproductive medicine; and to develop collaborative educational initiatives which serve to enhance the practice of reproductive medicine.

2019 ASRM Corporate Member Council

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Elsevier

EMD Serono

Ferring Pharmaceuticals Inc.

GE Healthcare

Growing Generations

TherapeuticsMD

Why become a Corporate Member?

- Participation in Collaborative Initiatives
- Visibility
- Networking
- Website Link on ASRM Website
- Interaction/Collaboration with ASRM Board of Directors
- Special Recognition
- Preferred Support Opportunities
- Two (full) ASRM Memberships (CMC Representatives)

Making a Difference One Initiative at a Time

- Patient Education Fact Sheets
- Patient Education Videos
- www.ReproductiveFacts.org
- In-Training Awards
- Question-based Learning Program
- Webinar Training
- Industry-Specific Sessions

For more information please contact Keith Ray at kray@asrm.org or call 205-978-5001

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Merck & Co., Inc.
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Roche Diagnostics
TherapeuticsMD
TMRW Life Sciences



Continuing Education/ CME Sessions

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Continuing Professional Development:

Continuing Medical Education | Continuing Education Credits

ASRM Continuing Education Programs

The goal of ASRM is to sponsor educational activities that provide learners with the tools needed to conduct research, practice the best medicine, and provide the best, most current care to patients.

ASRM adheres to the Essentials and Policies of the Accreditation Council for Continuing Medical Education (ACCME). CME activities must address specific, documented, clinically important gaps in physician knowledge, competence, or performance; be documented to be effective at increasing physician knowledge, competence, performance, or outcomes; and conform to the ACCME Standards for Commercial Support.

All planners and presenters disclose commercial and financial relationships pertaining to reproductive medicine. These disclosures were reviewed by the Subcommittee for Standards for Commercial Support of the ASRM CME Committee and the Executive Program Committee, which resolved perceived potential conflicts of interest.

How to Claim Continuing Medical Education/ Continuing Education Credits

For Pre-Congress Courses:

- Attend your course.
- Complete an evaluation and a post-course assessment using a web link emailed to you at the end of each day.

For the Scientific Congress:

- Attend the Congress sessions of your choice.
- Complete an evaluation and a post-Congress assessment for the sessions you attended using a web link emailed to you at the end of each day.

To print certificate and claim credits an **Overall Evaluation** must be completed.

Final date to claim credit is

December 31, 2019.

Email questions to education@asrm.org.

The following may receive honoraria and/or discounted or free registration: Plenary, Symposia, and Interactive Session speakers, and Pre-Congress faculty. Honoraria are not provided for Roundtable presenters, Oral and Poster Abstract presenters, and Video presenters.

Disclosures of faculty and presenters for the Pre-Congress and Scientific Congress may be in a presentation slide, printed material, or oral statement, and will be printed in the ASRM Final Program. Abstract authors' disclosures will be printed in the 2019 Program. Roundtable and Expert Encounter presenters should provide a copy of their disclosure to participants at their table.

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CME

Continuing Medical Education activities

PEER

Professional Enrichment Education Renewal activities

ARS

Indicates Audience Response System (ARS) will be used during session



Audience Response Sessions

Use your personal mobile device to respond to questions.

Respond using
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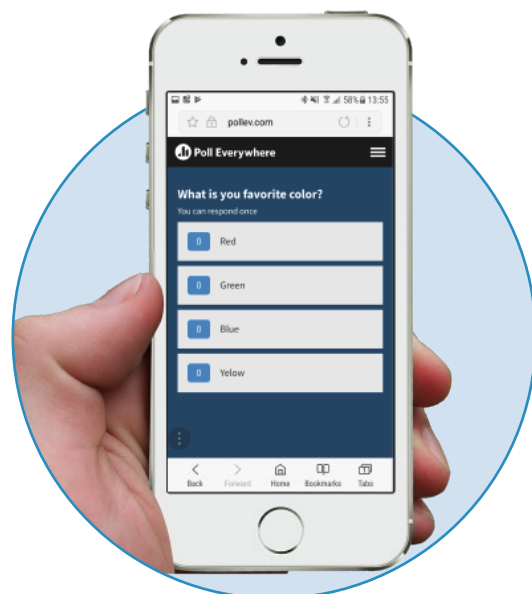
link on your device

Learn more at

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or in the ASRM app.

Full instructions provided in each session.



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- Complete an evaluation and a post-Congress assessment for the sessions you attended using a web link emailed to you at the end of each day.

To print certificate and claim credits an **Overall Evaluation** must be completed.

The Accreditation Council for Continuing Medical Education (ACCME)

The American Society for Reproductive Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

ASRM 2019 Scientific Congress

Designation Statement The American Society for Reproductive Medicine designates this live activity for a maximum of 15.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ASRM 2019 Pre-Congress Program

Designation Statement The American Society for Reproductive Medicine designates Pre-Congress Courses 1–8 & 11–20 for a maximum of 6.5 AMA PRA Category 1 Credits™ per course. Course 24 is approved for a maximum of 2.75 AMA PRA Category 1 Credits™. Courses 09, 21, 23, and 25 are approved for a maximum of 3.0 AMA PRA Category 1 Credits™. Courses 10 and 22 are approved for a maximum of 3.5 AMA PRA Category 1 Credits™.

Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American College of Obstetricians and Gynecologists (ACOG)

The American College of Obstetricians and Gynecologists has assigned 16 Cognates to the Scientific Congress; 7 Cognates each to Pre-Congress Courses 1,2,3,5,7,8,11,12,16,18,20, 4 Cognates to course 10, and 3 Cognates each to courses 21,23, and 24.

American Board of Bioanalysis (ABB)

The American Society for Reproductive Medicine has been approved to provide Professional Enrichment Education Renewal (PEER) credit through the American Board of Bioanalysis for this event. Up to 0.65 PEER CEUs (6.5 hours each) will be recognized for Pre-Congress Courses 1–4, 11–15 and 19. Pre-Congress Course 22 will be recognized for 0.35 CEUs (3.5 hours) and 25 will be recognized for 0.30 CEUs (3.0 hours). Scientific Congress has been approved for up to 11.25 hours or 1.125 CEUs.

Nursing Credits: National Association of Nurse Practitioners in Women's Health (NPWH)

Pre-Congress Course 10: The Transgender Couple and Infertility: A Complicated Journey has been evaluated and approved by the Continuing Education Approval Program of the National Association of Nurse Practitioners in Women's Health for 3.5 contact hours of continuing education credit. NPWH Activity no. 19-14. The ASRM 2019 Congress has been evaluated and approved by the Continuing Education Approval Program of the National Association of Nurse Practitioners in Women's Health for 15.50 contact hours of continuing education credit including 8.50 contact hours of pharmacology content. NPWH Activity no. 19-15.

American Psychological Association (APA)

The Mental Health Professional Group (MHPG) of the American Society for Reproductive Medicine is approved by the American Psychological Association to sponsor continuing education for psychologists. MHPG maintains responsibility for this program and its content. CE credits will be available for Pre-Congress Courses 07, 09, 10, and 17; MHPG Symposia I, II, III; MHPG Clinical Sessions 01-04; and other selected sessions.

National Association of Social Workers (NASW)

Pre-Congress Courses 7, 9,10, and 17 have been approved by the National Association of Social Workers (Approval # 886496548) for a total of 13.0 continuing education contact hours. Pre-Congress Courses 7 and 17 each for 6.5 contact hours. Pre-Congress Course 9 is approved for 3.0 contact hours and Pre-Congress Course 10 is approved for 3.5 contact hours.

National Society of Genetic Counselors (NSGC)

The National Society of Genetic Counselors (NSGC) has authorized the American Society for Reproductive Medicine to offer up to 2.275 CEUs or 22.75 Category 1 contact hours for select sessions in the ASRM 2019 Scientific Congress and Pre-Congress Courses 1, 3, and 11. The American Board of Genetic Counseling (ABGC) accepts CEUs approved by NSGC for purposes of recertification. Participants requesting NSGC CEUs will have a service fee of \$30 added to their meeting registration to cover payment to the National Society of Genetic Counselors for the filing and awarding of CEU certificates.

**Final date to claim credit is
December 31, 2019.**

Questions? email education@asmr.org



PRE-CONGRESS PROGRAM COMMITTEE

Cigdem Tanrikut, M.D.,
F.A.C.S., Chair

Amy Sparks, Ph.D., Co-Chair

Richard O. Burney, M.D.,
MSc., Coordinating Chair

WEEKEND COURSES

DATES:

Saturday, October 12th

Sunday, October 13th

HOURS:

8:15 am – 5:00 pm

Lunch is from Noon – 1:00 pm

Courses PC01-PC08 are
1-day courses on Saturday

Courses PC09 and PC10 are
half-day courses on Saturday

Courses PC11-PC20 are
1-day courses on Sunday

Courses PC21-PC25 are
half-day courses on Sunday

Pre-Congress Course syllabi
will be emailed via a link
only to registered PC course
participants in September
2019. Electronic copies
may be downloaded in the
registration area.

ASRM 2019 Pre-Congress Program

SATURDAY, OCTOBER 12, 2019

PC01 Subchromosomal Variations and Mosaicism: Clinical Significance in Assisted Reproductive Technology (ART) Practices   
Developed in Cooperation with the Preimplantation Genetic Testing Special Interest Group

Faculty

Semra Kahraman, M.D. (Co-Chair)
Istanbul Memorial Hospital, Turkey
Svetlana Rechitsky, Ph.D. (Co-Chair)
Reproductive Genetic Innovations
Eric Forman, M.D.
Columbia University Fertility Center
David Cram, Ph.D.
Berry Genomics Corporation

Needs Assessment and Description

Next-generation sequencing (NGS) in preimplantation genetic testing (PGT) has further confirmed that more than half of preimplantation embryos in assisted reproductive technology (ART) patients of advanced reproductive age are chromosomally imbalanced. A currently emerging problem in pre-selection of embryos for transfer is a high rate of genetic instability, such as chromosomal mosaicism and segmental aneuploidy, throughout preimplantation development. While more research is needed to investigate the origin and clinical significance of these phenomena, the best acceptable policies in a clinical setting should be explored. It is evident that subchromosomal abnormalities and mosaicism may arise in preimplantation embryos through mitotic errors or other possible mechanisms which have become evident with the application of high-resolution NGS (hrNGS). According to available experience, 10%–20% of human blastocysts are mosaic and up to 50% may have segmental aneuploidies. The rates of subchromosomal aneuploidy and mosaicism vary in samples obtained from different in vitro fertilization centers, suggesting that they may be technically derived, which should be distinguished from those with biological significance. The variation may be related to the quality of biopsy or the quality of NGS procedures, including the use of laser for biopsy, the efficiency of whole-genome amplification (WGA), and the NGS platforms used for a quantitative assessment of chromosomal copy number. Accumulated experience on the outcome of segmental and mosaic embryo transfers, their types and origin, and reproductive potential depending on specific chromosomes



involved in mosaicism and segmental aneuloidy should be considered for possible strategies related to the transfer of embryos with mosaicism and segmental aneuploidies. This course will discuss current diagnostic problems as well as advantages and disadvantages of available technologies in regards to better utilization and wider application of PGT in ART. This course is designed for obstetricians/gynecologists, specialty physicians, nurses, laboratory scientists and technologists, geneticists, genetic counselors, and legal professionals.

ACGME Competency

Patient Care

Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Explain the diagnostic implications of detected subchromosomal aneuploidies and mosaicism in biopsy samples of blastocysts.
2. Summarize reproductive potential depending on specific chromosomes involved in mosaicism and segmental variations.
3. Describe the criteria for distinguishing technically derived mosaicism and segmental aneuploidies from ones with biological significance.
4. Discuss the strategies for possible transfer of these embryos in the absence of transferable euploid embryos.

PC02 Fertility Preservation: 2019 and Beyond

CME  PEER

Developed in Cooperation with the Society for Male Reproduction and Urology (SMRU) and the Fertility Preservation Special Interest Group

Faculty

Akanksha Mehta, M.D., M.S. (Chair)

Emory University School of Medicine

Pasquale Patrizio, M.D.

Yale University IVF Program

Tommaso Falcone, M.D.

Cleveland Clinic

Joanne Kelvin, M.S.N.

Memorial Sloan-Kettering Cancer Center

gaps while exploring experimental approaches in both males and females that might prove to be mainstay therapies of the future. This live course is targeted for reproductive endocrinologists, urologists, adult and pediatric oncologists, nursing professionals, mental health professionals, and clinical investigators.

ACGME Competency

Patient Care

Medical Knowledge

Needs Assessment and Description

The field of fertility preservation has advanced substantially over the last several years. New insights and innovations have been made in male and female fertility preservation care, both in pre- and post-cancer treatment. Practice gaps exist in female and male fertility preservation, as made evident in recent American Society for Reproductive Medicine (ASRM) Continuing Medical Education (CME) Committee documents. These practice gaps include lack of clear knowledge about optimal female and male fertility potential in survivorship, lack of familiarity regarding fertility preservation counseling, and lack of innovative strategies for prepubescents or those without a functional uterus. Guidelines for fertility preservation in non-oncologic populations are also lacking and require standardization. This course will address these practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Describe special fertility considerations as well as the optimal reproductive care of male and female patients in survivorship.
2. Discuss uterus transplantation and its past, present, and future direction.
3. Examine reproductive success rates using oocytes and sperm that were cryopreserved prior to the initiation of cancer therapy.
4. Summarize strategies to facilitate fertility preservation education and execution in both males and females.



PC03 New Medical Information Involving Gamete Donors: Medical, Legal, and Ethical Considerations



Developed in Cooperation with the Legal Professional Group (LPG) and the Genetic Counseling Professional Group

Faculty

Pamela Callum, M.S. (Chair)
 California Cryobank
 Amy Vance, M.S., C.G.C.
 Bay Area Genetic Counseling
 Susan Crockin, J.D.
 Crockin Law & Policy Group
 Jeanne O'Brien, M.D., M.Sc.
 Shady Grove Fertility Center

Needs Assessment and Description

The Centers for Disease Control and Prevention (CDC) and US Surgeon General emphasize the importance of knowing one's family health history to aid in management of his or her own health. Donor-conceived individuals often have only partial family medical histories, limited to the information self-reported by their donors at the time of entry into a donor program. However, there are numerous cases in which new diagnoses arise or become known in gamete donors, their family members, and donor-conceived individuals, which have been shown to be critical to the health and medical management of biologically related individuals. Updated health information is frequently but inconsistently reported to gamete providers and variably communicated to the relevant parties. The diagnoses reported differ significantly and include: isolated birth defects, multifactorial conditions (for example, autism, autoimmune disease, mental illness), genetic carrier states for recessively inherited disease, and known or possible diagnoses of conditions that are inherited in autosomal dominant manners. The variation in the diagnoses, degree of heritable risk, and actionability of information available make assessment of this information extraordinarily challenging for gamete providers who are tasked with determining its significance to other parties, which may be in part dependent upon the length of time that has elapsed since the donation and use of gametes. The communication or notification of relevant parties is additionally complex because it necessitates determinations as to which populations should be informed, by whom, and what efforts to contact are sufficient. This session will include review of current legislation and case law (for example, duty to warn)

and obligations of parties which include gamete donors, reproductive endocrinologists, gamete facilities, primary physicians, and intended parents. We will discuss best practice recommendations for consents and agreements among the parties, as well as a summary of current strategies for collecting, assessing, and tracking original and new medical information in these populations. This course is for physicians, embryologists, nurses, mental health providers, genetic counselors, attorneys, and administrators to inform health-care providers of the regulations related to these processes, increase awareness of the legal issues, and explain how to manage risks and information as these situations arise.

ACGME Competency

Professionalism
 Interpersonal and Communication Skills

Interprofessional Competency

Values/Ethics for Interprofessional Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Compare the approaches for family history screening and tracking of updates involving gamete donors.
2. Summarize the limitations of family history evaluations and explain the possibility of future medical history updates to prospective recipients.
3. Develop a clinic policy on how to manage newly reported donor information.



PC04 Cryostorage Management and the Lost Art of Assisted Reproductive Technology (ART)



Developed in Cooperation with the Society of Reproductive Biologists and Technologists (SRBT)

Faculty

Mitchel C. Schiewe, Ph.D. (Chair)
Ovation Fertility
Thomas "Rusty" Pool, Ph.D.
Fertility Center of San Antonio
Donald Fish, B.S.
California Cryobank Life Sciences

Needs Assessment and Description

Training embryologists has become an urgent need in today's growing assisted reproductive technology (ART) industry without the luxury of long instructional programs. Embryologists entering today's in vitro fertilization (IVF) labs have fewer opportunities to learn or optimize certain IVF lab skills which also prepare them for problem-solving and understanding why certain practices are performed. Commercialization of product manufacturing for ART is both a blessing and a curse. It has improved quality control (QC) but at the sacrifice of embryologists learning some advanced yet fundamental techniques. This course will address many of the QC needs in today's IVF lab with an emphasis on cryostorage management to prevent catastrophic loss. This course is designed for embryologists, physicians, laboratory technicians, administrators, and all allied health professionals who would like to gain knowledge about laboratory basics and quality control, as well as better prepare and improve their QC programs and cryostorage management.

ACGME Competency

Systems-based Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Review the importance of cryostorage management.
2. Discuss the history and current state of today's IVF lab.
3. Optimize laboratory QC practices.



PC05 The Skinny on Obesity CME

Developed in Cooperation with the Society for Reproductive Endocrinology and Infertility (SREI) and the Society for Male Reproduction and Urology (SMRU)

Faculty

Eve C. Feinberg, M.D. (Co-Chair)
Northwestern University Feinberg School of Medicine
 Christina E. Boots, M.D., M.S.C.I. (Co-Chair)
Northwestern University
 Janine Kyrillos, M.D., F.A.C.P.
Thomas Jefferson University
 Jorge E. Chavarro, M.D.
Harvard Medical School
 John Magaña Morton, M.D., M.P.H.
Stanford University School of Medicine

Needs Assessment and Description

More than one third of US adults are obese. Obesity is associated with significant morbidity in reproductive aged women. Not only does obesity increase the risk of infertility, but it makes the treatment of infertility more complicated. The pathophysiology of obesity is complex; newer treatments are being developed that target the underlying hormonal pathways. Obesity contributes to pregnancy-associated complications both for the mother and neonate. ASRM has reported a knowledge gap and educational need in the pathophysiology of obesity and management options during fertility treatment and pregnancy. This course will address the impact of obesity on fertility and pregnancy. Topics of discussion will include obesity as an endocrine disorder and treatments for obesity such as lifestyle modification, pharmacotherapy, and surgical therapy. This course is designed to increase competence in understanding the impact of obesity and how to best help patients achieve optimal health prior to conception to ultimately result in the birth of a healthy baby. This live course is targeted for reproductive endocrinologists, urologists, general obstetricians/gynecologists, nurses, nurse practitioners, and other allied health professionals in reproductive care to optimize treatment for obese patients of reproductive age.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Discuss the impact of obesity on fertility, pregnancy, and the neonate.
2. Identify which patients would benefit from lifestyle interventions and could be counseled on methods for weight loss.
3. Determine which patients require pharmacotherapy or surgery for weight loss and recommend the most appropriate treatment options.



PC06 **Strengthening Your Core Business While Achieving and Sustaining Growth** CME

Developed in Cooperation with the Association of Reproductive Managers (ARM)

Faculty

Sara Mooney, B.A. (Chair)
Seattle Reproductive Medicine
 Lindsey N. McBain, B.A.
Reproductive Medical Associates of New Jersey
 Brad Senstra, B.S., M.H.A.
Seattle Reproductive Medicine
 Blake Welch, M.B.A.
Chicago IVF

Needs Assessment and Description

Management of a reproductive endocrinology and infertility (REI) practice requires a strong team to sustain the business. The health-care field requires special management techniques that are not found in other businesses. It is important for clinical and business units to work together to achieve a successful practice. This course is designed to provide key skills, tools, and business knowledge to strengthen and grow (know when to expand a line of services) all levels and sizes of practices. This live activity is designed for administrators, managers, supervisors, physicians, nurses, and all professionals involved in optimizing an REI practice.

ACGME Competency

Systems-based Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Discuss tools to strengthen teams and increase retention.
2. Recommend resources to best utilize patient services and financial counselors to optimize performance and leverage patient retention.
3. Describe strategies to expand a line of service to convert patients, increase conversion rates, and know when to grow their market.



PC07 Managing Assisted Reproductive Technology (ART) Patient Stress and Anxiety: Integrative Mind-body Approaches



Developed in Cooperation with the Mental Health Professional Group (MHPG) and the Complementary and Integrative Medicine Special Interest Group

Faculty

Carmelo Sgarlata, M.D. (Chair)
ORM Fertility
Alice D. Domar, Ph.D.
Harvard Medical School
Lee Hullender Rubin, D.A.O.M., L.A.c, F.A.B.O.R.M.
University of California, San Francisco

Needs Assessment and Description

Recent research indicates that stress is the most common reason why insured infertility patients terminate treatment before achieving pregnancy. In addition, symptoms of anxiety and/or depression are reported by the majority of women undergoing infertility. Taking care of highly distressed patients can take a toll on the entire health-care team. Supporting patients undergoing assisted reproduction treatments is vital to their overall psychological and reproductive well-being. Many patients need concrete interventions to reduce the psychological burden of assisted reproductive technology (ART). This course will present evidence-based integrative mind-body approaches to support patients facing infertility-related stress, such as mindfulness, mind-body programs, and acupuncture.. Methods will be presented to incorporate integrative mind-body therapies with usual care using examples from two in vitro fertilization centers that have successful integrative care programs. This live activity is designed for physicians, nurse practitioners, nurses, nutritionists, fellows, residents, mental health professionals, and allied health providers, this course will review integrative mind-body therapies.

ACGME Competency

Patient Care
Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Define and describe integrative methods in the ART clinic.
2. Analyze evidence of effectiveness or efficacy of integrative approaches.
3. Summarize methods of integration for mind-body patient support into the ART clinic.
4. Examine the physiological impact of anxiety and depression on the reproductive system.
5. Describe how acupuncture could impact both pregnancy rates and patient distress levels during ART.
6. Assess the research on the psychological aspects of infertility as well as the research on the efficacy of psychosocial interventions.



PC08 Early Pregnancy Loss: Maternal Factors in Implantation and Receptivity



Developed in Cooperation with the Early Pregnancy Special Interest Group

Faculty

Lora Shahine, M.D., F.A.C.O.G. (Chair)
Pacific NW Fertility and IVF Specialists
 Kristin Bendikson, M.D.
Keck School of Medicine of the University of Southern California, Los Angeles
 Paul Robert Brezina, M.D., M.B.A., F.A.C.O.G.
Fertility Associates of Memphis
 Steven Spandorfer, M.D.
Weill Medical College of Cornell University
 Dana B. McQueen, M.D., M.A.S.
University of California, San Diego

Needs Assessment and Description

Recurrent early pregnancy loss (REPL) affects up to 5% of the reproductive population. One in four pregnancies end in clinical miscarriage and approximately 5% of reproductive-aged women have had more than one miscarriage. As women delay childbearing, the incidence of miscarriage is increasing. The most common cause of first-trimester miscarriage is a genetic issue in the embryo which can be addressed with expectant management and hope for a euploid embryo or in vitro fertilization (IVF) with preimplantation genetic testing (PGT) to screen for euploid embryos, which is a costly and invasive option. However it is important to exclude other factors that could increase miscarriage risk prior to turning to assisted reproductive technologies to treat women with recurrent pregnancy loss. ASRM identifies evaluation and management of recurrent early pregnancy loss as an educational need. This live activity is designed to review evidence surrounding the maternal contribution to early pregnancy loss including anatomical, endocrine, infectious, immune, lifestyle, obesity, and environmental factors. The course is targeted to reproductive endocrinologists, obstetricians/gynecologists, and any medical providers investigating and treating women during conception and the early pregnancy phase. Evidence-based investigations will be discussed as well as strategies to enable clinicians to investigate and manage maternal contribution in early pregnancy loss.

ACGME Competency

Medical Knowledge
 Patient Care

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Describe maternal factors associated with early pregnancy loss.
2. Summarize an evidence-based evaluation for recurrent early pregnancy loss.
3. Demonstrate knowledge of evidence-based treatment options for maternal factors surrounding early pregnancy loss.



SATURDAY, OCTOBER 12, 2019 HALF DAY, 8:15 AM - 12:00 PM

PC09 **Gay Men Parenting: A Decade of Change in the Legal, Medical, Societal, and Psychological Landscape** CME

Developed in Cooperation with the Legal Professional Group (LPG), Mental Health Professional Group (MHPG), and the LGBTQ Special Interest Group

This half-day course is approved for a maximum of 3.0 AMA PRA Category 1 Credits™.

Faculty

Kim Bergman, Ph.D. (Chair)
Growing Generations
 Angela Lawson, Ph.D.
Northwestern University
 Will Halm, J.D.
International Reproductive Law Group

Needs Assessment and Description

Practitioners of assisted reproductive technology (ART) routinely offer fertility treatment to patients who identify as lesbian, gay, bisexual, or transgender (LGBT). However, much of the focus in research and in clinical practice is on female patients who present for fertility treatment. The literature and clinical focus is relatively limited for the growing number of gay men presenting for fertility treatment. Although gay men represent a minority of patients presenting for treatment, the use of surrogacy by gay men has been steadily increasing since the "gay baby boom" of the 1990s. Although there is limited research on gay men who use surrogacy to grow their families, they are likely to be at risk of discriminatory behaviors similar or greater than that experienced by lesbian and transgender patients at some fertility clinics. Social stereotypes about who should be allowed to parent and their assumed motivations for parenthood can be particularly harmful for men who conceive. Even in the absence of discriminatory behaviors, gay male patients must overcome similar and unique obstacles compared to lesbian, transgender, and bisexual patients undergoing fertility treatment. In addition to the social and treatment-related obstacles, gay male patients must also face the ambiguous legal and social status for children conceived by all LGBT couples. Although federal marriage is now the law of the land, many parenting laws have yet to be altered to provide parenting rights to gay families. Further, the uniqueness of gay male parenting via surrogacy and egg donation is associated with other recent legal cases and highlights the importance of the provision of appropriate counseling to gay male patients who desire family-building via fertility treatment. Multiple unique treatment issues could arise during the course of fertility treatment with gay male

patients that may expose these patients to unnecessary emotional risk. A partner's gametes could not result in desired outcomes. If two gestational carriers are employed and one miscarries, does not get pregnant, or conceives a child with medical challenges while the other woman does not experience such events, this may expose the partners to risk of psychological distress, resentment, and relationship discord. To address these issues, increased awareness and attention is needed from ART practitioners, clinic staff, mental health professionals, and attorneys. This session will address and update the medical, psychosocial, ethical, and legal issues in treating gay male patients and will provide direction to providers for how to address these issues in their clinics. This live course is designed for physicians, nurses, nurse practitioners, attorneys, psychologists, administrators, and other allied health professionals.

ACGME Competency

Interpersonal and Communication Skills
 Professionalism

Interprofessional Competency

Values/Ethics for Interprofessional Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Review legal issues that arise for gay male couples pursuing fertility treatment.
2. Summarize psychological issues surrounding gay male patients who present for fertility treatment.
3. Examine their own clinic practices and determine what changes should be made to make their clinic a safer and supportive environment for gay male patients.
4. Describe unique treatment-related ethical issues that may arise in the course of fertility treatment with gay male patients.



SATURDAY, OCTOBER 12, 2019 HALF DAY, 1:15 PM - 5:00 PM

PC10 **The Transgender Couple and Infertility: A Complicated Journey** CME

Developed in Cooperation with the Legal Professional Group (LPG), Mental Health Professional Group (MHPG), Nurses' Professional Group (NPG), and the LGBTQ Special Interest Group

This half-day course is approved for a maximum of 3.5 AMA PRA Category 1 Credits™.

Faculty

Jennifer M. Wood, R.N., B.S.N. (Chair)
Shady Grove Fertility Center
 Jamie M. Joseph, Ph.D.
Private Practice
 Marjorie E. Dixon, M.D.
Anova Fertility and Reproductive Health

Needs Assessment and Description

The entire reproductive team needs a robust understanding of the complexities of transgender patients, particularly in light of the ever-changing landscape of patients seeking fertility treatment. Collaboration is critical between the fertility team, mental health professionals, legal professionals and other LGBTQ resources. Fertility health-care providers and support staff need to be aware of resources available to support transgender couples faced with infertility, even when fertility preservation measures have been completed before their transition. An ASRM Gap Analysis identified fertility treatment and fertility preservation in the lesbian, gay, bisexual, and transgender (LGBT) population as an educational need to improve practice awareness and transgender patient experience in family-building. The course will explore some of the challenges transgender patients face which are further compounded when they are finding themselves struggling with infertility. It will focus on recognizing the emotional and medical needs of transgender patients pursuing fertility treatment and will examine the unique challenges of patients seeking fertility preservation after transitioning as well as considerations for adolescents before beginning transition hormones. In addition, this educational program will address some of the legalities of transgender patients including but not limited to changing their sex on legal documentation and its impact upon seamless patient care. This live course is targeted to reproductive endocrinologists, mental health professionals, nurses, nurse practitioners, legal professionals, and other professionals in reproductive care to address psychological, ethical, and legal issues in treating transgender patients.

ACGME Competency

Patient Care
 Professionalism

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Summarize the complexities of fertility treatment in transgender patients and identify various areas in practice and marketing that could improve the patient experience.
2. Explain the importance of mental health providers in fertility support as well as emotional support with the difficult decisions that transgender patients are faced with for treatment.
3. Identify common misconceptions related to transgender patients and couples and provide resources for staff to better understand the patient journey.
4. Discuss various legalities regarding sex and gender, legal documentation issues, as well as consenting adolescents for fertility preservation.



SUNDAY, OCTOBER 13, 2019

PC11 Reproductive Aging: Meeting the Challenges in Clinical and Laboratory Practice



Developed in Cooperation with the Turkish Special Interest Group

Faculty

Kutluk Oktay, M.D., Ph.D. (Chair)
Yale University School of Medicine
Murat Sonmezer, M.D.
Ankara University School of Medicine
Aleksander Rajkovic, M.D.
University of Pittsburgh
Nanette Santoro, M.D.
University of Colorado, Denver

Needs Assessment and Description

The consequences of reproductive aging affect both women and men. While many practitioners are aware of the significance of reproductive aging, some might have limited understanding of its underlying mechanisms, possible diagnostic approaches, and potential treatments. An ASRM Gap Analysis identified a significant education and training gap on the known mechanisms of reproductive aging, due at least in part to recent rapid advances in preimplantation genetic diagnosis technology. The goals of this activity are to update practitioners on available laboratory and clinical remedies in addressing reproductive aging while providing insight into areas of development and research. Lectures and discussions by the expert faculty will strengthen

the skills of practitioners dealing with clinical and laboratory challenges related to reproductive aging. This live course is designed for reproductive endocrinologists, embryologists, fellows, researchers, patient advocates, genetic counselors, geneticists, and nurses.

ACGME Competency

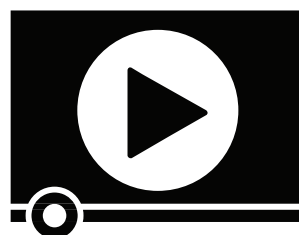
Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Develop diagnosis and treatment strategies for individuals with reduced gamete reserve.
2. Identify genetic methods to diagnose gametes and embryos affected by the reproductive aging process.
3. Summarize the known mechanisms of reproductive aging.
4. Describe future treatments for reproductive aging that are in trials or in development.

Fertility and Sterility®



The editorial team at *Fertility and Sterility* is pleased to announce a special **Journal Club Global** live from **The ASRM 2019 Scientific Congress & Expo** to discuss a recently published article. This exciting event will be streamed live on Saturday, October 12, 2019, at 5:15 pm (EST).

Please join us live in Philadelphia or register to watch online:

<https://www.workcast.com/register?cpak=2433551716191399>



PC12 Next-generation Assisted Reproductive Technology (ART): Personalized Reproductive Medical Management

Developed in Cooperation with the Middle Eastern Fertility Society (MEFS)

CME PEER

Faculty

Johnny Awwad, M.D. (Co-Chair)
American University of Beirut
Mohamed Aboulghar, M.D. (Co-Chair)
Egyptian IVF Center
Alan Penzias, M.D.
Boston IVF
Matheus Roque, M.D., Ph.D.
ORIGEN - Center for Reproductive Medicine, Rio de Janeiro, Brazil

Needs Assessment and Description

Significant advancement in the field of assisted reproduction lately has favored personalizing treatment recommendations on the basis of individual patient characteristics. As the number of clinical, hormonal, and genetic biomarkers available to physicians has increased, predictive models that integrate multiple variables have become attractive strategies to guide medical decision-making for the purpose of bringing greater efficiency and safety to reproductive practices. The burden of medical information has grown so rapidly and controversially over the past few years that reaching a level of understanding has become challenging and confusing to the individual physician. This activity appraises scientific evidence which evaluates the pros and cons of current reproductive practices with the aim of developing best practice models while leveraging the significance of relevant biomarkers and the contribution of clinical variables. Through an active learning format that evolves around team-based problem-solving of clinical vignettes, this course will help clinicians, embryologists, scientists, and allied health professionals update and gain basic and advanced knowledge of treatment and management protocols based on individual patient characteristics.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Design ovarian stimulation protocols tailored to patients' individual characteristics.
2. Demonstrate safe strategies to trigger final oocyte maturation without compromising outcome.
3. Identify clinical parameters associated with improved outcomes related to freeze-all policy.
4. Evaluate the advantages of a day-5 versus day-3 embryo transfer.
5. Develop a management approach to improve the use of elective single-embryo transfer while maximizing benefit.

Due to the team-based learning format, this course is limited to 100 participants.



PC13 First 20 Years of Stem Cells: From First Isolation to Clinical Use

Developed in Cooperation with the European Society of Human Reproduction and Embryology (ESHRE)



Faculty

Cristina Eguizabal, Ph.D. (Chair)
Unidad de Terapia Celular y Celulas Madre
 Susana Chuva de Sousa Lopes, Ph.D.
LUMC Leiden
 Nuria Montserrat, Ph.D.
Institute for Bioengineering of Catalonia, Spain
 Bernard Roelen, Ph.D.
Utrecht University, Netherlands

Needs Assessment and Course Description

The 20th anniversary of the derivation of human pluripotent stem-cell (hPSC) lines offers an ideal opportunity to look back over the past 20 years in this field, as well as to look forward to what the future may hold. This Pre-Congress course will review the history of hPSC derivation in the context of the scientific and technical environment at the time, then proceed to give a historical account of the development of the field of stem-cell research with a special emphasis on regenerative medicine and clinical applications. This course for embryologists, stem-cell researchers, reproductive genetic researchers, physicians, nurses, genetic counselors, and all allied health professionals will help bridge the gap between the past and future clinical research of stem cells.

ACGME Competency

Medical Knowledge

Learning Objectives

At the conclusion of this seminar, participants should be able to:

1. Review the history of human pluripotent stem cells (hPSC).
2. Discuss the development of the field of stem-cell research.
3. Summarize the use of stem cells in regenerative medicine and clinical applications.



PC14 How to Optimize Assisted Reproductive Technology (ART) Success: From Lab to Clinic

CME PEER

Developed in Cooperation with and presented by the Chinese Special Interest Group

Faculty

Rong Li, M.D., Ph.D. (Chair)

Peking University Third Hospital

Yanwen Xu, M.D.

First Affiliated Hospital of Sun Yat-sen University

Huailiang Feng, Ph.D., H.C.L.D.

New York-Presbyterian Health System Affiliate Weill

Cornell Medical College

Ge Lin, M.D., Ph.D.

Reproductive and Genetic Hospital of CITIC-XIANGYA

Needs Assessment and Description

In the last decades, human in vitro fertilization (IVF) has become more successful, more tolerable, and easier to perform. The IVF laboratory has improved significantly in the past three decades with new media and equipment for embryo cultures and a significant amount of new scientific knowledge. Additional technologies extending the scope and efficiency of IVF have been developed and implemented, including intracytoplasmic sperm injection, preimplantation genetic testing, and cytotechnology which allows for the freezing and storage of sperm, oocytes, embryos, and testicular and ovarian tissue. Even so, fertilization failure continues to be an unpredictable and significant limitation to IVF success. An ASRM Gap Analysis identified optimization of ART success as an educational need; despite technologic advances, when a morphologically normal blastocyst is transferred into a seemingly normal uterus during IVF, the reproductive success of a cycle is very limited and has not significantly improved since the 1990s. This course will involve current clinical and laboratory issues such as sperm deoxyribonucleic acid (DNA) fragmentation index (DFI), artificial intelligence technology in ART, oocyte cryopreservation, and genomic technology. The course is targeted to assist physicians, laboratory scientists, embryologists, and all health professionals in applying treatment strategies to improve pregnancy outcomes of infertile women.

ACGME Competency

Patient Care

Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Summarize factors that may affect pregnancy outcomes of IVF.
2. Discuss possible clinical and laboratory measures to improve the pregnancy outcome of IVF.
3. Describe genomic technology in the field of reproductive health.



PC15 Testicular Biopsy: Converting Diagnostic Measures into Efficient Laboratory/Intracytoplasmic Sperm Injection (ICSI) Outcomes



Developed in Cooperation with the Society for Male Reproduction and Urology (SMRU) and the Society of Reproductive Biologists and Technologists (SRBT)

Faculty

Shane Zozula, B.S. (Chair)

Ovation Fertility

Aaron Spitz, M.D.

Orange County Urology Associates, Inc.

Delores Lamb, Ph.D.

Weill Cornell Medicine Center for Reproductive Medicine

Joseph Alukal, M.D.

New York University School of Medicine

Needs Assessment and Description

The harmonization of urology with clinical and laboratory activities can be challenging as severe male-factor cases can complicate scheduling, consume hours of staff time, and result in unpredictable, substandard specimen-processing outcomes. Are there simpler and more effective ways to attain, process, and cryopreserve testicular sperm that ensure overt post-thaw motility, improved sperm selection, and flexible schedules? Furthermore, how are DNA fragmentation and epigenetic concerns actually influencing clinical and laboratory practices? Meanwhile, diagnostic approaches and clinical preferences have evolved and have been published for the most part on anecdotal beliefs, such as fresh is better than frozen or fresh testicular biopsy (TBx) is better than a poor ejaculated specimen. Much doubt has centered around the concept of reactive oxygen species and its potentially damaging effect to sperm DNA fragmentation index (DFI), but science and theory have yet to be correlated well to clinical outcomes. ASRM has identified gaps in knowledge regarding when to adopt and implement new technology into in vitro fertilization (IVF) laboratories and when to revise protocols to improve patient outcomes and laboratory work flow efficiency. This course will review how diagnostic measures are best integrated into laboratory practices, how pre-freeze in vitro culture and delayed cryopreservation of whole testicular biopsy (TBx) tissue may optimize laboratory functions, patient outcomes, and may be the preferred option for best practice. Also discussed will be the role that sperm epigenetic and deoxyribonucleic acid (DNA) fragmentation may play in optimizing laboratory practices. This course is targeted for urologists, embryologists, reproductive endocrinology and infertility

physicians, nurses, nurse practitioners, administrators, and clinic staff who want to optimize laboratory activities and patient outcomes.

ACGME Competency

Patient Care

Medical Knowledge

System-based Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Determine how diagnostic measures are best integrated into laboratory activities.
2. Explain when TBx is the preferred option for best practice among all personnel involved.
3. Assess how pre-freeze in vitro culture and delayed cryopreservation of whole TBx tissue optimize laboratory activities and patient outcomes.
4. Evaluate the role that sperm epigenetic and DNA fragmentation may play in optimizing lab practices.



PC16 Polycystic Ovary Syndrome: at the Crossroads of Metabolism and Reproduction



Developed in Cooperation with the Androgen Excess Special Interest Group

Faculty

Daniel A. Dumesic, M.D. (Chair)
University of California, Los Angeles
 Robert A. Wild, M.D., Ph.D., M.P.H., F.N.L.A., N.C.M.P.
Oklahoma University Health Sciences Center
 Marla E. Lujan, M.Sc., Ph.D.
Cornell University
 Joop S.E. Laven, M.D., Ph.D.
Erasmus University

Needs Assessment and Description

Women's health care for polycystic ovary syndrome (PCOS) remains confusing to many health-care providers. Multiple forms of PCOS exist and differ in adverse reproductive and metabolic consequences, ranging from infertility and signs of androgen excess to diabetes and cardiovascular disease. Women with PCOS are often dissatisfied with their health care due to a diagnosis that can be delayed for more than 2 years and visits to three or more health-care providers for confirmation. This course provides an evidenced-based approach to the health care of women with PCOS by integrating lectures relevant to metabolic and reproductive dysfunction with clinical discussions that address the needs of women with PCOS according to age. The course updates knowledge regarding the diagnosis and management of PCOS based upon state-of-the-art technology and addresses early detection of PCOS to optimize the short- and long-term reproductive and metabolic health of women with PCOS and their offspring. This course will assist physicians, nurse practitioners, nurses, nutritionists, fellows, and residents to address the educational needs underlying critical practice gaps by discussing the diagnosis of PCOS, its early warning signs, and providing new information regarding factors impairing fertility and metabolism.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. State how the current criteria for diagnosing PCOS are affected by age.
2. Develop a management plan for the infertile patient with PCOS that optimizes her safety and the health of her offspring.
3. Summarize the indications for diagnosing and treating metabolic dysfunction in women with PCOS.

Due to the team-based learning format, this course is limited to 100 participants.



PC17 **Transparency in Assisted Reproductive Technology (ART): Understanding the Global Legal, Ethical, and Psychosocial Issues of Information Disclosure in ART Today** CME

Developed in Cooperation with Legal Professional Group (LPG) and the Mental Health Professional Group (MHPG)

Faculty

Lisa Rinehart, R.N., J.D. (Co-Chair)
LegalCare Consulting
 Linda Applegarth, Ed.D. (Co-Chair)
Weill Cornell Medical College of Cornell University
 Narelle Dickinson, Ph.D.
Greenslopes Obstetrics and Gynecology (Australia)
 Lisa Campo-Engelstein, Ph.D.
Albany Medical College

Needs Assessment and Description

Recent legislation and case law reflect rapid changes in the world of ART, particularly regarding disclosure of information. Many of these new laws introduce requirements for independent legal counsel and mental health counseling. More comprehensive genetic testing/interventions and availability of commercial DNA tests can influence a parent's meaningful choice regarding disclosure or non-disclosure. This course is designed to examine the complex collaboration of medical clinics, lawyers, and mental health professionals with intended parents, donors, gestational carriers, significant others, clinic providers, and other parties through donor-assisted reproduction. The intersection of legal, cross-cultural, and ethical considerations of a multidisciplinary team will be explored with an emphasis on appropriate responses to questions about disclosure for various health-care and legal disciplines. This interprofessional course will discuss global legislation, cultural mores and values, ethical concerns, and psychological factors that lead to resistance to disclosure and the maintenance of secrecy, and also demonstrate how ART teams can counsel their clients/patients within appropriate cultural, legal, and ethical frameworks. We will present appropriate ways to approach patients about sensitive issues with consideration of cultural and religious backgrounds. This course for physicians, nurses, nurse practitioners, attorneys, mental health professionals, and practice administrators will assist multidisciplinary providers in maneuvering through the quickly changing legal, sociocultural, and psychological realities that clinicians face in donor-assisted reproduction.

ACGME Competency

Professionalism
 Interpersonal and Communication Skills

Interprofessional Competency

Values/Ethics for Interprofessional Practice

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Identify best practices and current standards of care in medical, legal, and mental health approaches to ART.
2. Differentiate how legal, ethical, sociocultural, and psychological realities shape practice and attitudes regarding anonymity, secrecy, and privacy in donor-assisted reproduction.
3. Discuss the increased need for a multidisciplinary approach to ART in all patient populations.
4. Describe how legal regulations may impact disclosure decision-making around the world.
5. Identify how different psychosocial and cultural factors affect attitudes regarding disclosure/non-disclosure for parents and clinicians.
6. Interpret how commercial DNA testing influences the ethics of secrecy and disclosure.



PC18 Challenging Reproductive Surgical Scenarios to Optimize Fertility CME

Developed in Cooperation with the Society of Reproductive Surgeons (SRS)

Faculty

Steven Lindheim, M.D. (Chair)
Wright State University Integrated OB/GYN Residency Program

John Petrozza, M.D.
Massachusetts General Hospital Fertility Center
Samantha Pfeifer, M.D.
Weill Cornell Medical College of Cornell University
Bala Bhagavath, M.B.B.S.
University of Rochester

Needs Assessment and Description

Reproductive surgery continues to play an important role in the treatment of appropriately selected infertility patient. There is a lack of awareness about advanced laparoscopic, endoscopic, and microsurgical techniques, and one in five graduating reproductive endocrinology and infertility (REI) fellows believes that their skill set would be augmented by additional surgical training. This suggests that there is a need for an increased focus on reproductive surgical training, particularly for laparoscopic, endoscopic, and microsurgical techniques. This Pre-Congress course will consist of presentations by experienced reproductive surgeons describing strategies for minimally invasive surgical management of common causes of infertility. This course is designed in a lecture format for recent graduates from fellowship programs and practitioners who wish to enhance their laparoscopic and hysteroscopy skills for challenging scenarios in clinical reproductive infertility to enhance fertility outcome.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Summarize when minimally invasive reproductive surgery is indicated, pearls to help manage specific pathologies, and strategies for managing and minimizing the risks of complications during operative laparoscopy and hysteroscopy.
2. Discuss pelvic and retroperitoneal anatomy and how it applies to myomectomy, extensive endometriosis, ovarian-tubal surgery, septum, cesarean scar isthmocoele, Müllerian uterine and vaginal anomalies, and management of complications including bladder and bowel injury.



PC19 Male Reproduction: the Road to Fertility with Bumps on the Way

Developed in Cooperation with the Society for the Study of Reproduction (SSR)



Faculty

Humphrey Hung-Chang Yao, Ph.D. (Chair)
National Institute of Environmental Health Sciences
 Tony De Falco, Ph.D.
Cincinnati Children's Hospital Medical Center
 Christopher Geyer, Ph.D.
Brody School of Medicine at East Carolina University
 Sarah Kimmins, Ph.D.
McGill University

Needs Assessment and Description

Male reproductive function and fertility involves integration of gene expression, somatic and germ-cell lineages, and environmental inputs during development of the gonads and reproductive tract. Disruptions in these early morphogenic events result in altered body size, metabolism, and immune function, disease susceptibility, and male infertility. Sperm counts have declined 1.4% per year from 1973–2011. Much of this decline in sperm production has been linked to alterations in gonadal development and increased environmental factors such as stress, obesity, and environmental toxins. The purpose of this course is to explore endocrine somatic, immune, and germ-cell lineages and their differentiation in the testis. Furthermore, this course will investigate how genetic and environmental factors may impact male reproductive fertility and health. In an interactive session with the audience, we will also consider genetic and environmental effects on development of the testis and reproductive tract and discuss clinical methods to measure and identify strategies to treat and restore fertility. Clinicians, scientists, embryologists, geneticists, and all health-care professionals will benefit from having more information related to male infertility to use in practice and to explore further research opportunities in male infertility.

This Pre-Congress course complements a Symposium on Monday, October 14, 2019, **SSR Symposium: Fertility Preservation: Existing and Emerging Fertility Preservation Options for Women and Men**, which will feature preservation methods and options for women and men.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Differentiate how somatic and germ cells develop in the testis and their impact on the reproductive tract.
2. Discuss the impact of altered cellular differentiation and environment on spermatogenesis.
3. Review the clinical consequences of genetic and environmental inputs on testis development and sperm production.



PC20 Endometriosis: from Diagnosis to Therapeutic Strategy **CME** (an ASRM-SEUD joint course)

Developed in Cooperation with the Society of Endometriosis and Uterine Disorders (SEUD)

Faculty

Felice Petraglia, M.D. (Chair)
University of Florence
Charles Chapron, M.D.
Paris Descartes University
Stacey Missmer, D.Sc., Sc.D.
Michigan State University
Katy Vincent, D.Phil, M.B.B.S
University of Oxford

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Discuss the differential diagnosis of endometriosis with other causes of infertility.
2. Identify a strategic plan for the treatment of young patients with endometriosis.

Needs Assessment and Description

Endometriosis is a common but often misunderstood disease affecting women across the lifespan. Yet, many clinicians and other care providers are not familiar with the etiology, diagnosis, treatment options, and complications of endometriosis. There is an educational need for clinicians who treat patients with infertility and endometriosis to improve knowledge of the hormonal, anatomical, and metabolic aspects of the disorder. This live course on endometriosis will have a multi-level approach, first to develop and enhance knowledge of correct diagnostic approaches, starting from genetic and epigenetic aspects, then to develop and enhance the physician's awareness of the pathogenesis for understanding the best imaging approach for patients, and finally to lay out all the strategic medical and surgical treatments related to infertility for patients. The course will assist obstetricians/gynecologists, reproductive endocrinology and infertility specialists, nurse practitioners, nurses, allied health providers, fellows, and residents in addressing practical, patient-centered management of endometriosis.

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SUNDAY, OCTOBER 12, 2019 HALF-DAY, 8:15 AM - 12:00 PM

PC21 **How to Debate the Scientific Literature With Real World Examples** CME

Developed in Cooperation with *Fertility and Sterility*

This half-day course is approved for a maximum of 3.0 AMA PRA Category 1 Credits™.

Faculty

Kurt Barnhart, M.D., M.S.C.E.

University of Pennsylvania

Micah Hill, D.O.

National Institutes of Health

Suneeta Senapati, M.D., M.S.C.E.

University of Pennsylvania Perelman School of Medicine

H. Irene Su, M.D., M.S.C.E.

University of California, San Diego

Needs Assessment and Description

Clinicians and health professionals are constantly called upon to decide what treatment is best, evaluate the efficacy of new and standard treatments, and assess if a therapy is cost-effective. The medical literature, and the press, are replete with claims of scientific evidence supporting a claim. Not all experts agree on what is considered strong evidence. There is often debate in the medical literature as to when a therapy is preferred or inferior and it is often difficult to assess who wins a debate on a scientific subject. Is one medication better than another? When should a technology be introduced or rejected? The ASRM needs assessment outlines the need to interpret evidence-based practice of reproductive medicine and assessment of new technologies. This course will review the quality of scientific evidence and how one presents and defends one's position on a scientific topic. Skills will be reviewed on how to formulate an opinion based on evidence, how to present a strong argument, and if an argument is based on strong scientific underpinnings. We will examine the scientific evidence supporting some of the most frequently employed practices in reproductive medicine such as fresh versus frozen transfer, preimplantation genetic testing for aneuploidies (PGT-A), intracytoplasmic sperm injection (ICSI) for non-male factor infertility, and single- versus double-embryo transfer. This live activity will involve the audience by exploring what makes good scientific evidence, how does one present a case for strong evidence, and how can one tell that a proposed point of view is not based on evidence. Themes discussed will include: Can you ever trust observational data? When can a randomized

controlled trial steer you wrong? What is a conflict of interest, its implications, and how can we use the data? The perspective will be from editors of scientific journals and consumers of the medical literature. This course is for clinicians, scientists, and allied health professionals in reproductive medicine.

ACGME Competency

Practice-based Learning and Improvement
Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Utilize the hierarchy of scientific evidence to assess a scientific claim in the medical literature.
2. Describe how to present a strong specific argument for or against a medical topic such as fresh versus frozen transfer, evidence to support PGT-A, the use of ICSI for non-male factor infertility, and the benefit of endometrial scratching.
3. Summarize strong and weak arguments in a scientific debate.



SUNDAY, OCTOBER 13, 2019 HALF DAY, 1:15 PM - 5:00 PM

PC22 Why the Lab Is Fab: In Vitro Fertilization (IVF) through the Eyes of an Embryologist

CME  PEER

Developed in Cooperation with the Society for Assisted Reproductive Technology (SART) and the Society of Reproductive Biologists and Technologists (SRBT)

This half-day course is approved for a maximum of 3.5 AMA PRA Category 1 Credits™.

Faculty

Sangita Jindal, Ph.D.
Montefiore Institute for Reproductive Medicine and Health
 Kristen Ivani, Ph.D., H.C.L.D.
Reproductive Science Center of the San Francisco Bay Area
 Michael Lee, M.S.
Fertility Solutions, P.C. and Massachusetts Fertility Center, L.L.C.

ACGME Competency

Medical Knowledge

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Explain how clinical decisions may impact key performance indicators in the IVF laboratory.
2. Describe the daily quality control, procedures, and other activities that are performed in the IVF laboratory.
3. Summarize the key performance indicators and elements that compose an effective IVF laboratory quality management program.

Needs Assessment and Description

The success of assisted reproductive technology (ART) relies upon an interdisciplinary team that continuously measures the effectiveness of each discipline's activities and overall outcomes, and is able to discuss and resolve problems when targets are not met. The in vitro fertilization (IVF) laboratory has had a number of changes in practice and performance expectations in the recent past. This course will give physicians, nurses, nurse practitioners, practice managers, scientists, and technicians a better understanding of the workflow, procedures, and strategies for quality management that embryologists employ to optimize laboratory performance.

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SUNDAY, OCTOBER 13, 2019 HALF DAY, 8:15 AM - 12:00 PM

PC23 Dietary Supplements and Fertility: Emerging Evidence and Clinical Guidance

CME 

Developed in Cooperation with the Endometriosis Special Interest Group and the Nutrition Special Interest Group

This half-day course is approved for a maximum of 3.5 AMA PRA Category 1 Credits™.

Faculty

Sunni Mumford, Ph.D.
Eunice Kennedy Shriver National Institute of Child Health and Human Development
 Holly Harris, M.P.H., Sc.D.
Fred Hutchinson Cancer Research Center
 Alex Polotsky, M.D., M.S.
Georgetown University

ACGME Competency

Patient Care

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Summarize current methods utilized to investigate the impact of supplements on fertility and endometriosis and be able to interpret published data on the topic.
2. Describe mechanisms in female and male reproductive physiology that may be impacted by dietary supplements.

Needs Assessment and Course Description

The direct-to-patient marketing of supplements is a large and growing industry; supplements are increasingly used by both men and women in an effort to boost their fertility. However, evidence is limited regarding whether these supplements are beneficial or not. There is limited knowledge among fertility-care providers on how to counsel patients about supplement use and consuming a healthy diet. The 2017-2018 ASRM Gap Analysis identified guidance on natural supplements for fertility and infertility as an educational need. This Pre-Congress course will address these knowledge gaps by presenting the latest research from population scientists, reproductive endocrinology and infertility specialists, and registered dietitians, translating this information into usable advice from an expert clinical perspective. There will be an additional focus on the role of supplements with gynecologic conditions such as endometriosis. This course targeted to primary-care physicians, reproductive-medicine and specialty physicians, physician assistants, nurses, nurse practitioners, laboratory scientists, and dietitians will not only present complementary views across professional groups, but how to interact across disciplines to advance research in this area to obtain the best outcomes for fertility patients.



SUNDAY, OCTOBER 13, 2019 HALF DAY, 1:15 PM - 5:00 PM

PC24 Therapies for Uterine Fibroids CME

Developed in Cooperation with the Fibroids Special Interest Group

This half-day course is approved for a maximum of 2.75 AMA PRA Category 1 Credits™.

Faculty

Digna R Velez Edwards, Ph.D., M.S.
Vanderbilt University Medical Center
William Catherino, M.D., Ph.D.
Uniformed Services University of the Health Sciences
Jeffrey Goldberg, M.D.
The Cleveland Clinic Foundation

Needs Assessment and Description

Fibroids affect a large percentage of reproductive aged women and can be associated with heavy and painful menses, pelvic pain, infertility and pregnancy complications. An increasing number of surgical and nonsurgical treatments have been developed. Depending on reproductive desires, treatment recommendations for fibroids continue to change as research trials and systematic reviews of evidence reveal new knowledge about comparative effectiveness. This course will provide an update on the latest developments and current best practices in the clinical management of patients with uterine fibroids, including data from evidence-based research and clinical practice. The course is designed for clinicians, clinical scientists, and basic researchers.

ACGME Competency

Medical Knowledge
Patient Care

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Describe the state of current research on the effectiveness of fibroid treatments.
2. Summarize the current best practice for the treatment of uterine fibroids.
3. Discuss a broad overview of future directions of fibroid treatments.

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Do you know a resident attending the Scientific Congress?

Participants in the ASRM Resident Education Program

will attend a flipped-classroom, interactive learning session, led by experts in reproductive medicine and medical education (boxed lunch provided), and a related symposium.

This ASRM-sponsored program (no additional cost to participants) is open to the first 100 residents who opt in at the time they register for the Scientific Program using a dialogue box that will open during the registration process.

Questions? Email Jessica Goldstein at jgoldstein@asrm.org.



SUNDAY, OCTOBER 13, 2019 HALF DAY, 8:15 AM - 12:00 PM

PC25 Interprofessional Approach to Manage Reproductive Failure due to Elevated Sperm DNA Fragmentation: from Etiologies to Diagnostic Approaches and Management Strategies

CME PEER

Developed in Cooperation with the Society of Reproductive Surgeons (SRS)

This half-day course is approved for a maximum of 3.0 AMA PRA Category 1 Credits™.

Faculty

Peter Chan, M.D., C.M., M.Sc., F.R.C.S.(C), F.A.C.S.
 McGill University
 Gianpiero Palermo, M.D., Ph.D.
 Cornell University

This course is designed for a broad range of health-care professionals in reproductive medicine ranging from embryologists, basic scientists, nurses, andrologists, urologists, reproductive endocrinology and infertility specialists, technicians, and allied health professionals.

Needs Assessment and Course Description

Male factor infertility can be identified in about half of infertile couples. In the remaining couples, unexplained infertility remains one of the most common and challenging diagnostic categories of reproductive failure. Evaluation of sperm DNA and chromatin quality has been a tool in basic science research among spermatologists for decades. Recent studies have found that elevated levels of sperm deoxyribonucleic acid (DNA) fragmentation, a condition undetectable by conventional semen analyses, are associated with adverse reproductive outcomes including prolonged time to pregnancy, poor embryo quality and development, pregnancy loss, and decreased rates of both pregnancy and live-birth. Despite being one of the most successful examples of knowledge translation from basic science to clinical use, standard evaluation methodologies for sperm DNA fragmentation, and thus this test is not yet considered to be a part of the standard evaluation in infertile couples. Further, the most efficacious and cost-effective management options for men with elevated sperm DNA fragmentation remain to be established. This Pre-Congress course will provide a comprehensive review of the latest developments in both basic science aspects and in the clinical values of evaluation for sperm DNA fragmentation. In collaboration with world-renowned experts in multiple disciplines including basic science, andrology, clinical embryology and reproductive urology, we will discuss the etiologies, evaluation approaches, and management strategies of elevated sperm DNA fragmentation in the context of reproductive failure.

ACGME Competency

Medical Knowledge
 Patient Care

Learning Objectives

At the conclusion of this course, participants should be able to:

1. Describe the indications for evaluation of sperm DNA and chromatin integrity in the management of infertile couples.
2. Explain the various methodologies currently available in the evaluation of sperm DNA and chromatin integrity.
3. Discuss various proposed etiologies of abnormal sperm DNA fragmentation and the efficacies of different potential management options for the condition.



ASRM 2019 SCIENTIFIC CONGRESS

Needs Assessment and Description

The theme of the 2019 Scientific Congress of the American Society for Reproductive Medicine is "Celebrating 75 Years of History and Innovation." Reproductive medicine covers a broad range of topics from puberty to menopause, in both the female and male. Its depths of focus include basic science, translational and clinical areas. This Scientific Congress will explore advances in reproductive care and cutting-edge research in the field presented by expert scientists and clinicians. The program is balanced between basic and clinical research at all levels, applied medical care, and ancillary fields crucial to family-building including clinical laboratory science, mental health, reproductive law. This live program is designed for physicians, nurses, andrology and embryology laboratory personnel, genetic counselors, social workers, practice and laboratory managers, as well as specialists in mental health, law, and ethics.

The Continuing Medical Education (CME)/Continuing Education (CE) portion of the Scientific Congress will include a wide array of educational activities, including plenary lectures, symposia, and interactive sessions interweaving the theme of this year's Congress. Plenary lectures will feature exceptional speakers covering a wide range of themes in reproductive research and clinical medicine including: closing the generational gap between practitioners and patients; using live imaging to reveal the mechanisms that form the mammalian embryo; exploring the ethics of human germline editing; and understanding the role of elective egg freezing on the care of infertility patients. Congress symposia will provide more in-depth coverage of basic and clinical subjects. Topics range from ethics in embryo research, usefulness of specialized sperm function tests, new updates on therapies for infertility in polycystic ovary syndrome (PCOS), management of infertility in low resource settings, family building and co-parenting in the 21st century, oögonial stem cells to improve oocyte quality and ovarian reserve; building high functioning teams in the embryology laboratory, the endometrium and recurrent pregnancy loss, looking beyond the XX factor, infertility and tuberculosis, controversies in assisted reproductive technology (ART), fertility preservation options for women and men, regenerative medical therapies for reproductive medicine, access to fertility preservation care from policy to the patient, quality management issues in human ART, marketing your practice in a competitive market, fertility trajectory of Klinefelter syndrome from childhood to adulthood, patient-centered research in uterine fibroids, management of mosaic embryos after PGT-A in ART, oocyte maturation in vitro and female fertility preservation, status of growing gametes and embryos, developing an egg freezing program in your practice, fertility preservation for transgender youth, novel therapies for the treatment of Asherman syndrome, risk management in patient education and consenting, ovarian stimulation protocols to improve results in assisted reproduction, and psychological, medical, and legal aspects of implementing an embryo donation program in a practice.

The interactive sessions cover a wide range of stimulating topics and are meant to be a forum for discussion and interaction, including topics such as non-invasive preimplantation genetic testing, moving hysteroscopy from the operating room to the office, Mullerian classification debate, reproductive epigenetics and mitochondria, environmental threats to reproduction, egg and embryo banking prior to advancing maternal age, insights from vertebrate model reproductive organ regeneration, disclosure implications of intentional and unintentional donor identity, how to handle mosaic embryos, hysterectomy versus utero-vaginal anastomosis to treat cervical agenesis, universal insurance coverage for IVF, key performance indicators for the IVF lab, and innovative approaches to treat dysmenorrhea, miscarriages, primary ovarian insufficiency, and recurrent pregnancy loss. Supplementing the CME/CE program will be non-CME/CE events including roundtable luncheons and Expert Encounters that will provide opportunities for in-depth discussion with experts in small-group settings as well as oral and poster scientific abstract presentations that enable investigators to present cutting-edge scientific research in reproductive medicine and biology.

Included in the diverse program are "tracks" for specialty and interest areas that can enable participants to focus on specific topics and identify areas to expand their knowledge. The 2019 Scientific Congress should provide ample opportunity for learning, improvement of clinical competence, and potential scientific collaboration.

Learning Objectives

At the conclusion of the Scientific Congress, participants should be able to:

1. Summarize appropriate treatments for reproductive dysfunctions in females and males at different ages throughout life—childhood, adolescence, adulthood, and reproductive senescence.
2. Discuss the relevance of genetics and genomics to reproductive care.
3. Analyze the ethical, legal, and psychosocial ramifications of reproductive technologies on family building.
4. Apply strategies that simplify technology, reduce costs, and broaden accessibility to assisted reproductive technology care.
5. Examine current knowledge and innovative approaches to treat endometriosis, fibroids, miscarriages, menopause, contraception, polycystic ovary syndrome, Klinefelter syndrome, and Asherman syndrome.
6. Describe how the extensive range of reproductive technologies from the cellular level to clinical application impact family building.
7. Explain the latest scientific advances in embryo biology and assessment to the optimization of embryo transfer.

ACGME Competencies

Interpersonal and Communication Skills
Medical Knowledge
Patient Care
Professionalism
Systems-based Practice

Interprofessional Competencies

Values/ethics for interprofessional practice
Roles/responsibilities
Interprofessional communication
Teams and teamwork



ASRM 2019 SCIENTIFIC CONGRESS SCHEDULE

DATE TIME	SATURDAY 12-Oct	SUNDAY 13-Oct	TIME	MONDAY 14-Oct	TUESDAY 15-Oct	WEDNESDAY 16-Oct
0630			0630			
0700			0700	Opening Ceremony Breakfast	Poster Abstract Sessions	Poster Abstract Sessions
0715			0715	7:00 am - 7:45 am	6:30 am - 7:45 am	6:30 am - 7:45 am
0730			0730			
0745			0745	Opening Ceremony	Transit Time	Transit Time
0800			0800	7:45 am - 8:30 am	Pre-Plenary Special Session	AUA Stewart Memorial Lecture
0815	Pre-Congress Courses 8:15 am - 5:00 pm	Pre-Congress Courses 8:15 am - 5:00 pm	0815		8:00 am - 8:30 am	8:00 am - 8:45 am
0830			0830	Plenary 1:	Plenary 3	
0845			0845	8:30 am - 9:15 am	8:30 am - 9:15 am	Members' meeting
0900			0900			8:45 am - 9:15 am
0915			0915	Plenary 2: Nezhat Lectureship	Plenary 4	Plenary 5: Herbert Thomas Lecture
0930			0930	9:15 am - 10:00 am	9:15 am - 10:00 am	9:15 am - 10:00 am
0945			0945			
1000			1000	Break	Break	Break
1015			1015			
1030			1030	10:00 am - 10:45 am	10:00 am - 10:45 am	10:00 am - 10:45 am
1045			1045			
1100			1100	Oral Abstract Sessions	Oral Abstract Sessions	Oral Abstract Sessions
1115			1115	Scientific Congress Prize Papers	Scientific Congress Prize Papers	Late-breaking Abstracts
1130			1130	10:45 am - 12:15 pm	10:45 am - 12:15 pm	10:45 am - 12:15 pm
1145			1145			
1200			1200	Break/Lunch	Break/Lunch	Break/Lunch
1215			1215	Roundtables	Roundtables	Roundtables
1230			1230	Non-CME Lunch	Non-CME Lunch	Non-CME Lunch
1245			1245	12:15 pm - 1:15 pm	12:15 pm - 1:15 pm	12:15 pm - 1:15 pm
1300			1300	Transit Time	Transit Time	Transit Time
1315			1315			
1330			1330	Interactive Sessions	Interactive Sessions	Interactive Sessions
1345			1345	1:30 pm - 2:30 pm	1:30 pm - 2:30 pm	1:30 pm - 2:30 pm
1400			1400			
1415			1415	Endowed Lecture	Transit Time	Transit Time
1430			1430	Adamson Lecture	SRS Lecture	Contraception Keynote Lecture
1445			1445		Menopause Keynote Lecture	SSR Exchange Keynote Lecture
1500			1500	2:35 pm - 3:20 pm	2:45 pm - 3:30 pm	2:45 pm - 3:30 pm
1515			1515	Break		Transit Time
1530			1530	ASRM 75th Anniversary Celebration	Break	
1545			1545	3:20 pm - 4:15 pm		
1600			1600		3:30 pm - 4:15 pm	Symposia
1615			1615	Symposia	Symposia	3:45 pm - 5:00 pm
1630			1630			Video Session 3
1645			1645	4:15 pm - 5:30 pm	4:15 pm - 5:30 pm	3:45 pm - 5:00 pm
1700			1700	Video Session 1/Prize	Video Session 2	
1715	Fertility & Sterility	Members' Meetings	1715	4:15 pm - 5:30 pm	4:15 pm - 5:30 pm	
1730	Journal Club LIVE	5:15 pm - 6:00 pm	1730			
1745			1745	Members' Meetings	Members' Meetings	
1800	5:15 pm - 6:15 pm		1800	5:45 pm - 8:00 pm	5:45 pm - 7:00 pm	
1815		ASRM 75th Anniversary Gala 6:00 pm - 10:00 pm	1815			



PLENARY SESSIONS

Monday, October 14, 2019

8:30 am - 9:15 am

PLENARY 1

CME

President's Guest Lecture: Closing the Generational Gap Between Practitioners and Patients

Endowed by a 1987 grant from Ortho Women's Health

Ryan Jenkins

Speaker, Author, and Inc. Magazine Columnist

Introducer: Peter Schlegel, M.D.

Needs Assessment and Description

Over 50% of workers say they are least likely to get along with someone from another generation. More than 60% of Generation Z (the generation after Millennials) anticipate challenges working with Baby Boomers and Generation X. Soon, Millennials and members of Generation Z will become the majority of the labor force, and these two generations have widely divergent perspectives on a number of topics, including communication, work and leadership. Not surprisingly, understanding of cross-generational interacting, influencing, and working was recently identified by ASRM as an important educational need. This session will review the generational gap in depth, discuss strategies to close the gap, summarize ways to interact with young patients, and give examples of organizations intent on closing the generational gap to improve patient care. This session is designed for physicians, embryologists, administrators, nurses, mental health professionals, counselors, fellows, and residents involved in patient care.

ACGME Competency

Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Assess the generational gap and why it exists.
2. Review of each generation's values, behaviors, and expectations.
3. Summarize each generation's varying views of communication, work, and leadership.
4. Describe strategies that are proven and actionable to close the generational gap.
5. Examine best-in-class examples of organizations successfully closing the generational gap.
6. Identify ways to interact with and influence young patients.



PLENARY SESSIONS

Monday, October 14, 2019

9:15 am - 10:00 am

PLENARY 2

CME

Camran Nezhat, M.D. Lectureship in Innovations in Medicine: Using Live Imaging to Reveal the Mechanisms That Form the Mammalian Embryo

Endowed by a 2011 Gift from Camran Nezhat, M.D. Dr. Camran Nezhat pioneered techniques of video-assisted endoscopic surgery, which revolutionized modern day surgery. He along with his brothers, Drs. Farr and Ceana Nezhat, performed some of the most advanced procedures with these techniques for the first time, thus opening the vistas for endoscopic surgeons all over the world.

Nicholas Plachta, Ph.D.
Institute for Molecular and Cell Biology, A*STAR

Introducer: Christos Coutifaris, M.D., Ph.D.
(Certificate Presented by Dr. Nezhat)

Needs Assessment and Description

As a result of emerging technologies in embryo development, the ASRM gap analysis and educational needs assessment identified in 2019 a need to identify clinical implications of the cellular pathways and how it relates to improving embryo implantation. This session will review how advanced imaging technologies can be used to study preimplantation development in real time, along with summarizing processes and morphogenetic events that pattern the early embryo. The results reveal the dynamic molecular mechanisms, explaining how cells choose their fate, shape, and position within the early embryo. The presentation targets embryologists, scientists, reproductive endocrinologists, geneticists, nurses, and genetic counselors.

ACGME Competency Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe how imaging techniques can be used to reveal mechanisms controlling embryonic development.
2. Identify key dynamic processes and morphogenetic events patterning the early embryo.



PLENARY SESSIONS

Tuesday, October 15, 2019

8:30 am - 9:15 am

PLENARY 3

CME

Is Human Germline Editing Ethical?

Endowed by a 1990 grant from Astra-Zeneca

Françoise Baylis, C.M., O.N.S., PH.D., FRSC, FCAHS
Dalhousie University

Introducer: Hugh Taylor, M.D.

Needs Assessment and Description

In late November 2018, the world learned that twin girls Lulu and Nana (pseudonyms) were created from embryos that had been genetically modified to provide them with resistance to HIV. The birth announcement was greeted with swift and near uniform condemnation. Among those who objected were many who quoted from the 2015 Summit Statement, *On Human Gene Editing*, according to which "It would be irresponsible to proceed with any clinical use of germline editing unless and until (i) the relevant safety and efficacy issues have been resolved...and (ii) there is broad societal consensus about the appropriateness of the proposed application." At the same time, others sought to assure the public that the Chinese researcher who created the gene-edited babies was an irresponsible scientist; rather, the responsible members of the scientific community could be trusted to do "well" what he had done "poorly." The 2018 Summit Statement, *On Human Genome Editing II*, stated "the procedure was irresponsible and failed to conform with international norms." The Summit-organizing committee then identified the need for a translational pathway that would include the following criteria: "strict independent oversight, a compelling medical need, an absence of reasonable alternatives, a plan for long-term follow-up, and attention to societal effects." Each of these proposed criteria will be interrogated through arguing the pros and cons associated with the proposed transitional pathway, identifying the elements of "broad societal consensus" on the use of this technology, and encouraging to develop one's own professional opinion on the ethics of heritable human genome editing. Targeted to physicians, bioethicists, embryologists, scientists, nurses, mental health professionals, genetic counselors, legal professionals, social workers, and all levels of

clinic staff in reproductive medicine, this presentation therefore serves as a guide to reflect carefully on the ethics of heritable human genome editing.

ACGME Competency
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify the elements of broad societal consensus.
2. Summarize the elements of the proposed translational pathway for heritable human genome editing.
3. Describe the problems with the proposed translational pathway for heritable human genome editing.
4. Develop a professional opinion on the ethics of heritable human genome editing.



PLENARY SESSIONS

Tuesday, October 15, 2019

9:15 am - 10:00 am

PLENARY 4

CME

Planned Oocyte Cryopreservation: A Patient's Perspective

Endowed by a 1992 grant from Wyeth.

Brigitte K. Adams
Eggsurance

Introducer: Christos Coutifaris, M.D., Ph.D.

Needs Assessment and Description

The number of women interested in electively freezing their eggs has grown exponentially since the ASRM Ethics Committee's 2012 determination that oocyte cryopreservation was no longer experimental. In order to support these women medically and emotionally, it is important for clinicians to understand the motivations of this new generation of egg freezers and this has been identified by ASRM as an educational need for care providers. A better understanding from the patient's perspective will help clinicians develop new and more targeted communication strategies, information protocols, and emotional guidelines for women delaying child birth by choice. This presentation will discuss reasons a woman might want to undergo elective oocyte cryopreservation, identify what these patients want and need to be told prior to planned oocyte cryopreservation, and summarize the difference between oocyte cryopreservation patients and infertility patients undergoing IVF. The target audience includes reproductive endocrinologists, nurses, psychologists, social workers, lab personnel, legal professionals, and administrators.

ACGME Competency

Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize the different motivations and experiences between an IVF patient and an oocyte cryopreservation patient.
2. Discuss the reasons a woman might undergo elective oocyte cryopreservation.
3. Identify what information patients want, do not want and, more importantly, need to be told prior to planned oocyte cryopreservation: distinguish between verbal and written communication.



PLENARY SESSIONS

Wednesday, October 16, 2019

9:15 am - 10:00 am

PLENARY 5

CME

Plenary 6: Herbert H. Thomas Lecture: Justice and the Privatization of Health Data

Endowed by a 1992 grant from EMD Serono, Inc.

Kayte Spector-Bagdady, J.D.
University of Michigan

Introducer: Keith Jarvi, M.D.

Needs Assessment and Description

Our data are collected at every turn: where we drive, who we email, what we google, and what we buy. Perhaps a last bastion of expected privacy protections surrounds our health data. But while some data collection systems (like a hospital system) have stringent governance, others (like health apps) do not. Ready access and linkage of medical information can help us provide better care to our patients, but it can also serve to harm, alienate, and erode trust. This talk will explore how health data are currently being collected and by whom, as well as ways we can both serve and protect our patients in the future. This session is for all clinicians, legal professionals, administrators, and allied health professionals.

ACGME Competency Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe different ways that health data are generated and collected.
2. Identify holes in our current health data governance structure.
3. Review opportunities to protect our patients and their data better.



LECTURES

Monday, October 14, 2019

2:35 pm - 3:20 pm

LECTURE 1: KEYNOTE

CME

Endowed Lecture: IVF as a Business

Endowed by a 1990 grant from TAP Pharmaceutical

David Sable, M.D.
Columbia University

Introducer: Richard J. Paulson, M.D.

Needs Assessment and Description

Clinicians, embryologists, and nurses are rightly focused on acute patient care and practice management. Recent changes in the economic landscape of reproductive medicine that may have gone unnoticed contain the potential to fundamentally alter the demands placed on those who own, control, and operate medical practices performing in vitro fertilization (IVF). An educational need of how to build REI practices has existed over the past years due to the evolution of access to care and emerging technologies. This presentation will address underlying changes in the population of patients pursuing care in IVF centers, emergence of previously untreated patient groups, acceleration of oocyte cryopreservation for delayed conception, and evolution in the financing of the industry. This plenary session is designed for physicians, nurses, embryologists, administrators, and allied health professionals to contribute to the success of the REI practice.

ACGME Competency

Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify changes in the IVF patient population that will radically alter the demands on IVF programs in the near future.
2. Discuss the challenges of accommodating a much larger infertility patient population in countries like the United States and China without sacrificing quality of care and underserved genetic disease prevention and onco-fertility patients.
3. Review emerging technologies that could alter practice patterns and increase the efficiency of care delivery.



LECTURES

Monday, October 14, 2019

2:35 pm - 3:20 pm

LECTURE 2 : KEYNOTE

CME 

The David and Rosemary Adamson Lecture on Excellence in Reproductive Medicine: Midnight's Broken Toll: Male Fertility and the Health of Future Generations

Endowed by Advanced Reproductive Care, Inc. and Rosemary and David Adamson, M.D.

R. John Aitken, Ph.D., Sc.D., F.R.S.E., F.R.S.N., F.A.H.M.S., F.A.A.
University of Newcastle

Introducer: Peter N. Schlegel, M.D.

Needs Assessment and Description

Defective sperm quality is one of the most prevalent causes of male subfertility and yet little is known about the etiology of this condition or its impact on the health of future generations. This is of concern when ICSI is used as the insemination procedure, since it permits conception with spermatozoa that would have been rejected under physiological circumstances in vivo. Two major causes of male infertility or subfertility have been identified in recent years: Y-chromosome deletions and oxidative stress. The use of spermatozoa exhibiting either of these pathological changes has been identified as an educational need to determine the consequences for the health and well-being of the offspring following assisted reproductive technology (ART). In this lecture, the major causes of male infertility and the potential impact of genetic defects in spermatozoa on future offspring will be discussed; then, we will describe possible approaches to the clinical resolution of this problem. There is a need for reproductive biologists, andrologists, urologists, reproductive endocrinologists, nurses, and genetic counsellors to realize the nature of these relationships and how they can be addressed from a clinical perspective.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify the major causes of male infertility.
2. Describe the potential impacts that genetic and epigenetic defects in spermatozoa might have on the health and wellbeing of the offspring.
3. Summarize possible approaches to the clinical resolution of this problem.



LECTURES

Tuesday, October 15, 2019

8:00 am - 8:30 am

LECTURE 3

CME

Pre-Plenary Special Session: Eye on AI: Artificial Intelligence in ART

Cristina Hickman, Ph.D.
Imperial College

Nikica Zeninovic, Ph.D.
Weill Cornell Medicine

Introducer: Catherine Racowsky, M.D.

Needs Assessment and Description

In this plenary lecture, we will explore the different types of artificial intelligence, with a specific focus on the current and potential applications of AI in ART. This lecture was developed in response to the need to explore technology and the impact it has on ART. This lecture will explore embryo evaluation and selection, prediction of aneuploidies in embryos, evaluation of ovarian reserves, sperm identification and selection, identification of embryos that result in miscarriage, and how to provide personalized precision medical care. This presentation will discuss AI concepts and different AI platforms, and explain novel concepts and future development of AI application in ART. The target audience includes physicians, nurses, embryologists, scientists, and all allied health professionals.

ACGME Competency

Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain basic AI concepts and recognize different platforms of AI applications.
2. Identify the potential of AI applications in ART.
3. Describe the novel concepts and future development of AI application in ART.



LECTURES

Tuesday, October 15, 2019

2:45 pm - 3:30 pm

LECTURE 4 : KEYNOTE

CME

SRS Lecture: Innovation for Surgery: Surgical Robotics and The Fifth Generation – Non-Invasive Procedures

Endowed by a 1990 grant from Ethicon Endo-Surgery, Inc.

Richard M. Satava, M.D., F.A.C.S.
University of Washington

Introducer: Bala Bhagavath, M.B.B.S.

Needs Assessment and Description

Even as the fourth revolution in surgery in 25 years, robotic surgery, is gaining in popularity, a much more disruptive change is beginning with the next revolution: directed energy surgery. While surgeons have been investigating a few different types of energy for decades, including success with some forms such as lithotripsy, photonics, and high-intensity focused ultrasound (HIFU), these pioneering techniques are but the tip of the iceberg that heralds the transition to non-invasive surgery. Such systems are based upon the premise which robotics and automation can bring precision, speed and reliability, especially as surgery descends into operating at the cellular and molecular level. ASRM 2018 gap analysis and educational needs assessment developed by the continuing medical education committee, identified as an educational need information on new emerging surgical technologies. Designed for physicians, nurses, allied health professionals, and health care administrators, this session will identify the new non-invasive therapies, discuss the principles in surgery that are changing, explain how new technologies at the molecular level will impact surgery, and summarize how emerging technologies will enhance or make obsolete current surgeries.

ACGME Competency

Practice-based Learning and Improvement
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the fundamental principles in surgery that are changing.
2. Identify the new non-invasive therapies which will come after robotic surgery.
3. Assess how new technologies at the molecular and atomic level will impact surgery.
4. Explain how emerging technologies will enhance or make obsolete current surgery.



LECTURES

Tuesday, October 15, 2019

2:45 pm - 3:30 pm

LECTURE 5 : KEYNOTE

CME

Menopause Keynote Lecture: Future Directions on the Management of Menopause

Rogerio A. Lobo, M.D.
Columbia University

Introducer: TBD

Needs Assessment and Description

In recent years, little attention has been paid to teaching about menopause, its consequences and possible treatment options. Current and future approaches for the management of women after menopause has been identified as an educational need by ASRM. This lecture will discuss morbidity and mortality in postmenopausal women, update information on treatments and effects of hormones, and summarize the future for postmenopausal women. The session is designed for physicians, nurses, and all clinic staff who provide care for this patient population.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss what the major causes of morbidity and mortality in postmenopausal women and the role of prevention are.
2. Identify the most recent information regarding possible treatments and the effects of hormones if prescribed early after menopause.
3. Summarize what therapies are in development and what the future may hold for postmenopausal women.

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Wednesday, October 16, 2019

8:00 am - 8:45 am

LECTURE 6

CME

American Urological Association Bruce Stewart Memorial Lecture: The Diagnosis and Treatment of Male Infertility – From the Bench to the Bedside

Supported by a grant from the American Urological Association

Larry I. Lipshultz, M.D.
Baylor College of Medicine

Introducer: Harris Nagler, M.D.

Needs Assessment and Description

The ASRM has identified a need for education on the identification, evaluation, and treatment of male factors that affect male fertility. This presentation will review the many basic research discoveries that have been translated into better patient care for the infertile male, discuss research that has improved men's reproductive health, and look to the future using innovative research techniques that will

doubtlessly impact men's reproductive health. The target audience is physicians, andrologists, nurses, and all allied health professionals.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review the significance of translational research in improving men's reproductive health.
2. Summarize how today's innovative studies will impact tomorrow's reproductive health care.



LECTURES

Wednesday, October 16, 2019

2:45 pm - 3:30 pm

LECTURE 7

CME

Contraception Keynote Lecture: Male Contraception: Past, Present, and Future

John K. Amory, M.D., M.P.H.
University of Washington

Introducer: TBD

Needs Assessment and Description

Despite current contraception options being available, unintended pregnancy still commonly occurs. Therefore, an educational need to determine which contraceptive choices are being used and understand the effectiveness of male contraceptives on prevention. This talk will review advantages and disadvantages of currently available male contraceptives, along with efforts to develop novel contraceptive methods for men. Physicians, nurses, and allied health professionals are the target audience for this session.

ACGME Competency Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the pros and cons of existing methods of male contraception.
2. Summarize the status of ongoing research into developing novel hormonal and non-hormonal methods of male contraception.

Wednesday, October 16, 2019

2:45 pm - 3:30 pm

LECTURE 8

CME 

SSR Exchange Keynote Lecture: Motile ciliopathy as a new cause of male infertility

Wei Yan, M.D., Ph.D.
University of Nevada

Introducer: Christos Coutifaris, M.D., Ph.D.

Needs Assessment and Description

Obstructive azoospermia is a well-known cause of male infertility, but the most commonly known obstruction sites have been vas deferens and epididymis. We have new data showing that obstructions can occur in the efferent ducts, and efferent ductal obstructions cause oligoasthenoteratozoospermia (OAT) or azoospermia due to fluid retention. This has never been described in humans and should be investigated in clinical practice. This session is based on the educational need for appropriate workup and new treatment options for male infertility. During the lecture, the structure and function of the efferent ducts will be reviewed, the pathology caused by dysfunction

of motile cilia will be explained, and the potential treatment of male infertility caused by efferent ductal obstructions will be discussed. The target audience is physicians, andrologists, nurses, and all allied health professionals.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

Describe the structure and function of the efferent ducts.

1. Explain the pathology caused by dysfunction of motile cilia in the efferent duct.
2. Discuss potential treatment of male infertility caused by efferent ductal obstructions.



INTERACTIVE SESSIONS

Monday, October 14, 2019

11:00 am - 12:00 pm

MHPG CLINICAL SESSION 1



MHPG Clinical Session (Research) Research Isn't Just for Nerds: The Easy How-To's of Conducting Publishable Research in the Field of Reproductive Medicine

Alice Domar, Ph.D.
Boston IVF
Lauri Pasch, Ph.D.
University of California, San Francisco

Needs Assessment and Description

Mental health professionals who attend ASRM are keenly aware of the lack of up-to-date research on psychological aspects of infertility care and long-term psychosocial implications of reproductive technologies. This session will address practical aspects of conducting research in mental health and psychosocial aspects of ART to try to reduce the gap between intention and implementation. This session will cover the major areas on which mental health professionals desire additional guidance,

including developing testable questions, working with Institutional Review Boards, study design, finding needed analytical resources, and methods for optimal dissemination. This session is designed for mental health professionals.

ACGME Competency

Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the different kinds of research designs.
2. Summarize the IRB application process.
3. Determine how to conduct different kinds of research in an infertility clinic.
4. Identify potential barriers to psychosocial research in an ART clinic and review ways to circumvent them.

Monday, October 14, 2019

1:30 pm - 2:30 pm

MHPG CLINICAL SESSION 2

MHPG Clinical Session: The Trauma of Infertility and Pregnancy Loss: Helping Our Patients Heal

Janet Jaffe, Ph.D.
Center for Reproductive Psychology
Karen Hall, Ph.D.
Private Practice
Julie Bindeman, Psy.D.
Private Practice

Needs Assessment and Description

Many fertility patients, whether struggling to conceive or suffering pregnancy demise, are in crisis: they have been traumatized by recurrent losses and exhibit high levels of distress. A history of traumatic events can also exacerbate and complicate fertility treatment. The purpose of this session is to expand the clinician's understanding of the patient's experience of trauma and offer specific counseling techniques for the management of grief, loss and stress. We will also identify ways in which trauma can complicate third party cases. This session is designed for mental health professionals.

ACGME Competency

Patient Care
Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Define psychological trauma.
2. Identify risks of trauma in the treatment of fertility patients.
3. Determine the effects of a history of trauma on current reproductive crisis.
4. Describe specific counseling techniques (CBT, EMDR, narrative therapy) used to manage stress and grief reactions of fertility patients.
5. Identify ways in which trauma can complicate third party cases.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

MHPG CLINICAL SESSION 3



MHPG Clinical Session: To SKYPE or not to SKYPE: Ethics of Third-party Teleconsultations in the Age of High-tech

Lauren Magalnick Berman, Ph.D.
Fertility Psychology Center of Atlanta
Lindsay Childress-Beatty, J.D., Ph.D.
American Psychological Association

Needs Assessment and Description

With the ubiquity of free and low-cost video conferencing platforms, mental health professionals receive increasing numbers of requests for third-party consultations and evaluations over video conference. There are ethical and legal challenges inherent in the use of video conferencing. The presentation will describe and discuss the appropriate use, competencies to practice, and the type of training necessary to develop required skills in video conferencing. This session is for mental and legal health professionals to provide insight into the challenges of using teleconsultations in regard to confidentiality, HIPAA, informed consent, and licensure.

ACGME Competency

Professionalism
Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the appropriate contexts and benefits for use of telemental health.
2. Summarize the ethical and legal challenges of telemental health in regard to confidentiality, HIPAA, informed consent, and licensure.
3. Identify the competencies necessary for practicing telemental health.
4. Determine the type of training needed in order to develop competency in telemental health.

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Wednesday, October 16, 2019

11:00 am - 12:00 pm

MHPG CLINICAL SESSION 4



MHPG Clinical Session: Peeking Under The Hood: Psychological Testing with Sperm Donors

Andrea Braverman, Ph.D.
Jefferson OBGYN
John Kurtz, Ph.D.
Villanova University

Needs Assessment and Description

Psychological testing is a new addition to the evaluation of sperm bank donors and is an often-misunderstood tool in the psychological assessment of these donors. In 2018 an educational need was identified by ASRM for strategies to assist health care personnel on counseling donors. Professional practice guidelines recommend a psychological screening and assessment of sperm donors. In this clinical mental health session, we will discuss the advantages of psychological assessment for sperm donors, describe respondent behavior, and assess strategies for evaluating defensiveness with psychological testing. This session was developed for psychologists, social workers, and other allied health professionals.

ACGME Competency

Patient Care
Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the unique advantages of psychological assessment for sperm donors.
2. Summarize types of respondent behavior that can be explored through normed instruments such as the Personality Assessment Inventory and the MMPI-2.
3. Explore strategies for evaluating and understanding defensiveness with psychological testing.

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INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION



Key Performance Indicators for the IVF Lab

Amy Sparks, Ph.D. (Chair)

University of Iowa

Alison Bartolucci, M.S.

University of Connecticut

Dean Morbeck, Ph.D., M.B.A., H.C.L.D.

Fertility Associates, Auckland, NZ

Needs Assessment and Description

When carefully chosen, Key Performance Indicators (KPI) can give lab managers a bird's eye view of internal and external factors affecting laboratory performance. Identified by ASRM 2018 as an educational need, a quality control program in the IVF lab is crucial for assuring the delivery of optimal patient care and trouble shooting when outcomes are less than optimal. The live session will focus on the key performance indicators and benchmarks for laboratories, identify the tools that are available for tracking KPI, and explain situations where key performance indicators could aid with troubleshooting issues that may arise in the lab. This interactive session is designed for physicians, laboratory directors, laboratory technicians, nurses, and clinic staff to be educated on KPI in labs to improve performance.

ACGME Competency

Patient Care

Systems-based Practice

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify key performance indicators and benchmarks established.
2. Describe situations where key performance indicators could aid with trouble-shooting.
3. List the tools that are being made available to SART members for tracking their own KPI and comparing their performance with national aggregate data.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

How Do We Reach the Goal of Universal Insurance Coverage for IVF?

Jacqueline Ho, M.D. (Chair)
University of Southern California
Sean Tipton, M.A.
ASRM
Barbara Collura, M.A.
RESOLVE

Needs Assessment and Description

The cost of infertility treatments, including ART, often acts as a barrier for accessing care when patients do not have health insurance coverage for assisted reproductive technology (ART). In a recent Ethics Committee Opinion, the American Society for Reproductive Medicine (ASRM) stated that "reproduction is a fundamental interest and human right, and the access, treatment, and outcome disparities that are associated with ART are a form of stratified reproduction that warrants correction." This interactive session will address current gaps in infertility care through a generative discussion of strategies to achieve goals of increased insurance coverage and access. The target audience includes physicians, nurses, embryologists, administrators, and allied health professionals in reproductive medicine.

ACGME Competency

Patient Care
Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Examine barriers in accessing and utilizing infertility services and identify populations with unmet infertility care needs.
2. Identify ways to improve access to infertility services to patients through increased insurance coverage and alternatives including philanthropy.
3. Utilize tools for advocacy at the local and national level to change policy regarding access to reproductive care.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

An Integrative Approach to Treating Dysmenorrhea Associated with Endometriosis

Peter Harvey, M.B.A., L.Ac., F.A.B.O.R.M. (Chair)
Eastern Healing, Inc.
 Charles E. Miller M.D.
The Advanced IVF Institute
 Holly R. Harris, Sc.D., M.P.H.
Fred Hutchinson Cancer Research Center

Needs Assessment and Description

Dysmenorrhea is a common problem often seen in practices with more than one half of women who have menstrual pain for 1-2 days. Women suffering with dysmenorrhea associated with endometriosis will often seek help from their physician. There are multiple ways to address this problem from an allopathic treatment perspective to an integrative one. These patients are unsure of their options and are worried that surgery is the only answer. This interactive presentation will summarize current western options, review acupuncture and Chinese medicine options, develop diet and vitamin lifestyle recommendations, evaluate when to integrate both eastern and western treatments, and when to refer patients for allopathic treatment of dysmenorrhea. This session is for obstetrics and gynecologists, general physicians, reproductive endocrinologists, nurses, and allied health professionals that work with patients who suffer from dysmenorrhea and would like to incorporate allopathic treatments into their practice.

ACGME Competency

Patient Care
 Medical Knowledge
 Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review current western options for the treatment of dysmenorrhea the pros and cons and long term considerations.
2. Identify acupuncture and Chinese medicine options along with its strengths and limitations to the patient.
3. Apply diet and vitamin lifestyle recommendations.
4. Determine when to integrate both eastern and western treatments without negatively impacting either of them and address concerns of doctors and acupuncturists.
5. Assess when to refer patients and how to choose an allopathic clinic for referral of patients.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

No Satisfaction: Psychological and Medical Perspectives on Infertility and Sexual Dysfunction

William D. Petok, Ph.D. (Chair)
Thomas Jefferson University
 Elizabeth A. Grill, Psy.D.
Weill Cornell Medical Center
 Robert D. Oates, M.D.
Boston University School of Medicine
 Kim Bergman, Ph.D.
Growing Generations

Needs Assessment and Description

Sexual problems/dysfunctions are common for infertility patients and can lead to failure to conceive and, conversely, failure to conceive can lead to sexual dysfunction. The resulting stress on patients presents a treatment dilemma for many health care providers: should one condition be treated before the other or should concurrent services be offered. The ASRM 2018 gap analysis and educational needs assessment identified mental health, stress, and wellness for infertility patients as an educational need. This interactive session for physicians, nurses, mental health professionals, and all allied health care providers will summarize common sexual problems, discuss interventions, and identify resources that may be available for treatment of sexual dysfunction.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize common sexual problems/dysfunctions presented by infertility patients.
2. Describe interventions for these problems.
3. Identify resources for appropriate treatment of sexual dysfunction, if none exists in their practice setting.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Moving Hysteroscopy from the Operating Room to the Office: Essentials for Success, Safety, and Patient Satisfaction

Steven R. Lindheim, M.D. (Chair)

Wright State University

Stefano Bettocchi, M.D.

University of Bari

Keith Isaacson, M.D.

Harvard Medical School

Brad Senstra, M.H.A.

Seattle Reproductive Medicine

Needs Assessment and Description

Technological advances coupled with patient preference and economic considerations increasingly favor office hysteroscopy relative to the operating room setting. However, few OB/GYN's and reproductive endocrinologists perform diagnostic office hysteroscopy and still fewer perform operative office hysteroscopy. The ASRM 2018 gap analysis and needs assessment identified as a need to implement technology into clinical care and how to assess utility and use of new technology in your practice to optimize patient care. This symposium will address core components of successful, safe, and satisfying care helping to bridge the gap from the OR to the office. Critical factors contributing to these goals include preoperative management, access to technology, and surgical technique. Additional opportunities relate to analgesia, staff and patient expectations, and reimbursement. This session is designed for reproductive endocrinologists, obstetrics and gynecologists, nurse practitioners, nurses, administrative staff, and all allied health professionals working in clinics.

ACGME Competency

Medical Knowledge

Patient care

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss core components needed to perform safe office hysteroscopy.
2. Summarize critical factors that address from the preoperative management of patients, access to technology, surgical technique, analgesia, staff, patient expectations, and reimbursement.

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INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Non-invasive preimplantation genetic testing (NIPGT): Is it applicable for ART practice?

Svetlana Rechitsky, Ph.D. (Chair)
Reproductive Genetic Innovations
Dagan Wells, Ph.D., I.V.I., R.M.A.
University of Oxford
Carlos Rubio, Ph.D.
Igenomix

Needs Assessment and Description

Recent attempts have been made to perform non-invasive preimplantation genetic testing (NIPGT) by examining embryo-derived DNA in either blastocoel fluid or spent culture medium. While aspiration of blastocoel fluid is less invasive than trophectoderm biopsy, it is not completely non-invasive, and its accuracy remains to be adequately demonstrated. Examining cell free DNA in spent culture medium is non-invasive. However, data for this approach are preliminary, and many limitations and problems have yet to be overcome. This session will cover diagnostic implications of NIPGT, potential approaches for NIPGT, and adjustments needed for molecular methods to test small for amounts of embryonic DNA. The target audience for this session is obstetrics and gynecologists, specialty physicians, laboratory scientists, laboratory technologists, geneticists, genetic counsellors and legal advisors.

ACGME Competency

Practice-based Learning and Improvement
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the expected diagnostic implications of NIPGT.
2. Describe the potential approaches for NIPGT, based on testing blastocoel fluid and spent culture medium.
3. Analyze the molecular methods adjusted to testing of an extremely small amount of embryonic DNA from the blastocoel fluid and spent culture medium.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Counseling Patients on Mosaicism

JoRene Bigler-Vollman, R.N., M.S.N. (Chair)
Fertility Centers of Illinois
 Lisa A. Rinehart, J.D., R.N.
LegalCare Consulting, Inc.
 Andria G. Besser, M.S., C.G.C.
New York University Langone Fertility Center

Needs Assessment and Description

With the advancement of Preimplantation Genetic Testing (PGT), clinicians have the ability to detect aneuploidy and known genetic diseases in order to prevent unhealthy embryos from being transferred to the uterus. However, controversy is growing regarding the disposition of mosaic embryos. Should they be discarded? If the patient has no other viable embryos, should these embryos be transferred in hopes for a normal pregnancy? What will be the clinical phenotype of a mosaic embryo? There is a great need for quality patient education and effective counseling regarding PGT and mosaicism due to these game changing questions regarding the viability of mosaic embryos. This course will cover legal implications, complications, pros and cons, and counseling of patients regarding the transfer of mosaic embryos. The target audience it is designed for includes physicians, scientists, nurses, legal professionals, genetic counselors, practice administrators, and allied health professionals to review issues associated with mosaic embryos.

ACGME Competency

Patient Care
 Interpersonal and Communication Skills
 Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Demonstrate an understanding of mosaicism.
2. Review mosaicism and complication of transferring to the uterus.
3. Identify future legal implications of transferring mosaic embryos and the birth of a child.
4. Debate the pros and cons of transferring mosaic embryos.
5. Counsel patients regarding PGT and mosaicism.



INTERACTIVE SESSIONS

Monday, October 14, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

Best Practices in Miscarriage Management

Courtney Schreiber, M.D. (Chair)

University of Pennsylvania

Sarah Horvath, M.D.

University of Pennsylvania

Sarita Sonalkar, M.D., M.P.H.

University of Pennsylvania

Vanessa Dalton, M.D., M.P.H.

University of Michigan

Needs Assessment and Description

Miscarriages affects up to 5% of the reproductive population. As women delay childbearing, the incidence of miscarriage is increasing. ASRM identified the evaluation and management of miscarriages as an educational need. This session reviews common practices for medical and surgical management of miscarriage, including updates to best practices, myth-busting, and new evidence for superior medical management regimens. Additionally, we discuss emerging evidence regarding Rh immunoglobulin use in early pregnancy and examine methods for integration of manual vacuum aspiration. Physicians, researchers, clinic managers, nursing, and clinic staff will find this session valuable.

ACGME Competency

Patient Care

Systems-based Practice

Medical Knowledge

Practice-based Learning

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Integrate evidence-based regimens for medical management of miscarriage.
2. Discuss preferences for medical or surgical management of miscarriage.
3. Review methods for integration of manual vacuum aspiration.
4. Discuss emerging data in threshold for Rh sensitization in early pregnancy.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION



Medical and Lifestyle Treatment Options in PCOS, More Than Just Metformin

Nanette Santoro, M.D. (Chair)
University of Colorado, Denver
Anuja Dokras, M.D., Ph.D.
University of Pennsylvania Perelman School of Medicine
Heather G. Huddleston, M.D.
University of California, San Francisco

Needs Assessment and Description

Women with PCOS struggle with lifelong concerns including a propensity for obesity, diabetes, hirsutism, and infertility. Comprehensive lifestyle and medical treatments should be undertaken across the lifespan from adolescence through the reproductive years. Thus, an educational need has been identified to raise recognition of the complexities of PCOS presentation and individual needs, manage symptoms, and institute prevention early in a patient's care to potentially enhance overall patient well-being. Topics to be discussed during this session include medical management of the symptoms of PCOS including benefits of lifestyle management, first line therapies for adolescent girls with PCOS, and determining the need for emotional support for patients suffering with PCOS. Additionally, cases will be presented to demonstrate evidence-based patient care, which adhere to the international guidelines for management of PCOS. Developed for obstetricians, gynecologists, reproductive endocrinologists, fellows, residents, nurses, and allied health providers, this session helps them to discern the medical and emotional management of PCOS.

ACGME Competency

Patient Care
Medical Knowledge
Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review medical management of symptoms of PCOS including benefits of lifestyle management.
2. Discuss appropriate first line therapies with adolescent girls with PCOS.
3. Assess the need for emotional well being in PCOS.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

Mosaicism Exposed – How to Handle Mosaic Embryos

Timothy N. Hickman, M.D. (Chair)

Houston IVF

Mandy Katz-Jaffe, Ph.D.

Colorado Center for Reproductive Medicine

Cassandra Catoni, M.S., C.G.C.

Ovation Fertility

Mike Large, Ph.D.

CooperSurgical

Needs Assessment and Description

Increased granularity of test results for preimplantation genetic testing for aneuploidy (PGT-a) may allow for better prioritization of embryos for future frozen embryo transfer cycle. The additional information may be difficult to interpret, increasing the challenge of an already complex discussion with patients. In the 2018 ASRM gap analysis and needs assessment, the CME committee identified as a need, better understanding of PGT-A, transfer of mosaic embryos, and patient understanding of mosaic embryos. We will address the challenges of counseling patients about their mosaic embryos, provide insight into how to interpret the PGT-a report, translate the information for a discussion with your patient, and provide updated data on outcomes of transferring mosaic embryos. This session is designed for physicians, embryologists, nurses, genetic counselors, mental health professionals, legal professionals, and administrative staff.

ACGME Competencies

Patient care

Medical Knowledge

Practice-Based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the challenges facing clinicians and embryologist as we counsel patient what to do with their mosaic embryos.
2. Describe current PGT technologies including appropriate interpretation of the data and what that means for patients.
3. Summarize updates on outcomes of transferring mosaic embryos.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION



Beyond Disclosure: The Psychological, Social and Legal Implications of Intentional and Unintentional Donor Identity

Claudia Pascale, Ph.D. (Chair)
Institute for Reproductive Medicine and Science at Saint Barnabas
 Judith Daar, J.D.
Chase College
 Heidi Hayes, M.A.
California Cryobank
 Neha Kumar, Sc.M.
Invitae

Needs Assessment and Description

As stated in the ASRM 2018 Ethics Committee document, "An important question in gamete and embryo donation is whether donor-conceived persons should be informed about the facts of their conception and, if so, how much information should be revealed." Today, discovering that one is donor-conceived or discovering the name of donor-conceived offspring or half-siblings is as simple as spitting in a tube. This interactive session will begin a discussion to address questions of how to approach this issue today and what to do about donations of the past from a psychological, ethical, and legal perspective. This session is for physicians, embryologists, nurses, mental health professionals, genetic counselors, legal professionals, and administrators.

ACGME Competencies

Patient Care
 Professionalism
 Interpersonal and Communication Skills

ACGME Interprofessional Competencies

Values/Ethics for Interprofessional Practice

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize the psychological issues for offspring, donors and recipients in "forced" disclosure.
2. Define ethical and legal issues for ART programs, sperm and egg banks, and embryo donation programs for present and past matches.
3. Identify potential legal issues and responsibilities regarding forced disclosure for ART programs and gamete banks.
4. Describe possible remedies to the problem of "forced disclosure" to all parties concerned.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Insights from Vertebrate Model Reproductive Organ Regeneration: How Do We Unlock Our Regenerative Potential

Kyle E. Orwig, Ph.D. (Chair)
University of Pittsburgh
James R. Monaghan, Ph.D.
Northeastern University

Needs Assessment and Description

One of the hallmarks of regenerative medicine is the ability to use a patient's own cells to regenerate lost tissue or organs. Human adult male and female sex organs have limited potential to regenerate following loss of gamete precursors; however, some lower vertebrates are able to regenerate their reproductive tissue and organs such as ovaries. Understanding how these unique organisms are able to regenerate their reproductive tissue may provide insight into developing novel regenerative medicine therapies for human patients. This interactive session will provide insight to interested researchers, scientists, physicians, and other clinical and allied health professionals about how regenerative medicine could be deployed in the fertility clinic. The presentation will also provide fundamental information on how a unique vertebrate species, the axolotl, regenerates its reproductive organs.

ACGME Competency

Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the impact of chemotherapy and radiation treatments on fertility.
2. Describe experimental stem cell-based therapies for treating infertility caused by medical treatments.
3. Review how a unique vertebrate species regenerates its reproductive tissue.
4. Examine similarities between axolotl and human reproductive organ formation to identify differences in regenerative potential in axolotl versus humans.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Home Sperm Testing: What is Available, Limitations, and Opportunities

Natan Bar-Chama, M.D. (Chair)
Reproductive Associates of New York
 Michael Eisenberg, M.D.
Stanford University
 Benjamin Leader, M.D., Ph.D.
ReproSource Inc.

Needs Assessment and Description

A knowledge gap exists between several FDA approved home sperm screening tests and physicians' understanding of the different techniques being utilized. Male home fertility testing is emerging as a tool commonly used by couples early in their fertility journey. Thus, it is important for physicians to better appreciate how this opportunity can be optimized. This presentation will be a comprehensive analysis of the numerous available home sperm testing tools by focusing on each one's technology, accuracy, and limitations. The target audience for this session includes urologists, reproductive endocrinologists, scientists, laboratory clinicians, nurses, and clinic staff.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review available home sperm testing technologies.
2. Develop competency in the ability to counsel patients appropriately regarding results of each technique.
3. Describe the difference between sperm home testing and home semen collection, along with the pros and cons of each technique.
4. Summarize how these tools can be utilized to engage infertile couples early in their path to family building.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

Cervical Agenesis-Hysterectomy vs Utero-Vaginal Anastomosis

Stephanie J. Estes, M.D. (Chair)

Penn State

Bala Bhagavath, M.B.B.S.

University of Rochester

Leslie Coker Appiah, M.D.

University of Colorado Denver School of Medicine – Anschutz Medical Campus

Needs Assessment and Description

Historically, loss of reproductive capacity was assumed and accepted under certain conditions including congenital absence of uterus. Today, this concept is being challenged with the advent of innovative surgeries such as uterine transplantation. There are many less invasive and innovative techniques developed and advocated for other uterine anomalies including congenital absence of the cervix and/or vagina. Traditionally, the symptomatic patient with hematometra due to this outflow tract obstruction has been managed with removal of the uterine body. However, in the past decade, attempts at conserving uterine function have been made with innovative techniques including utero-vaginal anastomosis. There is debate as to whether this is effective and even appropriate. ASRM identifies advances in emerging technologies for fertility preservation as an educational need. This presentation will discuss surgical methods available for the management of cervical agenesis, summarize pros and cons of conserving the uterine body while managing the hematometra, and explain the advantages and disadvantages of removing the uterine body for the management of hematometra. The session will serve to educate reproductive endocrinologists, obstetricians/gynecologists, and any medical providers that may be treating women about the condition and the appropriate management options for these patients.

ACGME Competency

Medical Knowledge

Patient Care

Interprofessional Communication

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the various surgical methods available for the management of cervical agenesis.
2. Explain the various potential advantages and disadvantages of conserving the uterine body while managing the hematometra.
3. Discuss the advantages and disadvantages of removing the uterine body for the management of hematometra.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Debate: Measuring AMH: A Useful Investigation in Recurrent Early Pregnancy Loss?

Paul Robert Brezina, M.D., M.B.A. (Chair)

Fertility Associates of Memphis

A. Musa Zamah, M.D., Ph.D.

The University of Chicago

Sasha A. Krieg, M.D., Ph.D.

Oregon Health and Science University

Needs Assessment and Description

Endocrine disorders have been frequently linked to recurrent pregnancy loss (RPL). Because embryo attachment and early implantation are controlled by local hormones, endocrine-related pregnancy failures are likely to occur early in gestation. ASRM identified the evaluation and management of recurrent pregnancy loss as an educational need. This session will present in a debate format the evidence for and against including Anti-Mullerian Hormone (AMH) in the work up of RPL and review the endocrinology of RPL. The targeted audience will include physicians, nurses, and counselors who work in the field of RPL.

ACGME Competency

Patient Care

Medical Knowledge

Professionalism

Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review the endocrinology of RPL.
2. Discuss and debate the role of AMH in the investigation of RPL.



INTERACTIVE SESSIONS

Tuesday, October 15, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

In Vitro Activation (IVA) for Primary Ovarian Insufficiency: Is it Ready for Prime Time?

Mindy Christianson, M.D. (Chair)

Johns Hopkins University

James H. Segars, Jr., M.D., F.A.C.O.G.

Johns Hopkins University

Cesar Diaz-Garcia, M.D., M.P.H.

IVI London

Needs Assessment and Description

Primary Ovarian Insufficiency (POI) also known as Premature Ovarian Failure, is the premature cessation of ovarian function, which affects 1% of women. In most cases the cause is unknown and, unfortunately, there are currently no effective treatments. Infertility in this group of patients is challenging, as they often desire their own biological children and are most often unsuccessful with controlled ovarian hyperstimulation and in vitro fertilization. According to the 2018 Gap Analysis and Educational Needs Assessment, how to approach fertility treatment in this group of patients was an identified gap and a need for future approaches to treatment was identified. In vitro activation (IVA) is a newly-described technique based on in vitro activation of ovarian tissue fragments by mechanical separation and protein kinase (Akt) stimulation, and as such may represent a paradigm shift for treatment of impaired ovarian function. There have been several live births reported worldwide from IVA. This session will cover the technique of IVA as well as the current status of the IVA treatment modality for women with POI.

This presentation is designed for infertility providers of all levels, physicians, fellows, residents, nurses, embryologists, and all allied health professionals.

ACGME Competency

Patient Care

Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the technique of In vitro activation (IVA).
2. Discuss the current status of the IVA treatment modality for women with POI who desire pregnancy.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION



Egg and Embryo Banking for Family Building Prior to Advancing Maternal Age: A Patient and Laboratory Perspective

Jennifer Mersereau, M.D. (Chair)
UNC Fertility

Kara N. Goldman, M.D.
Northwestern University

Sangita K. Jindal, Ph.D.
Montefiore Institute for Reproductive Medicine and Health

Needs Assessment and Description

This session will tackle the common questions that patients ask when they consider egg and embryo banking, such as "Is egg or embryo banking for family building purposes prior to advancing maternal age helpful to patients," and "how do laboratories handle these cases?" Speakers will engage the audience in the best practices for laboratories regarding data collection and reporting of embryo banking, including how patients decide when they have enough eggs or embryos, and whether or not there is a limit to the number patients should bank. Target audience includes reproductive endocrinologists, reproductive urologists, laboratory personnel, nurses, administrators, genetic counselors, mental health professionals, and allied health professionals that work with advancing maternal age patients.

ACGME Competency

Patient Care
Medical Knowledge
Practice-based Learning and Improvement
Interpersonal and Communication Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review best laboratory practices and data management in egg and embryo banking.
2. Summarize best decision-making practices for egg retrieval and embryo number.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Repeated implantation failure – can we learn from endometrial evaluation?

Svetlana Dambaeva, M.D., Ph.D. (Chair)
Rosalind Franklin University of Medicine and Science
 Emilio Francisco Fernandez, M.D.
Clinical Las Condes
 Udo R. Markert, M.D.
Universitäts Klinikum

Needs Assessment and Description

Repeated implantation failure (RIF) of unknown etiology after euploid transfers in otherwise healthy women, represents a significant portion of all RIF, up to 20% based on CDC data, 2015. Recent studies suggest that endometrium testing may reveal immuno-regulatory changes in the uterus related to poorer embryo implantation. Current available tests for evaluation of the endometrium will be discussed at this session. An educational need was identified to review clinical results and the science behind testing the endometrium in women who have had repeated implantation failures. It is important to evaluate factors that are important for a receptive endometrium and evaluate the altered endometrial pattern. This interactive session will discuss the definition, criteria, clinical significance of problem, time options for biopsy, current available tests, follow up testing, and available treatments for RIF. The target audience includes physicians, clinician scientists, laboratory scientists, pathologists, nurses, laboratory technologists, and all allied health professionals.

ACGME Competency

Patient Care
 Systems-based Practice
 Medical Knowledge
 Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize recurrent implantation failure by definition, criteria, clinical significance of the problem, and time options for endometrial biopsy study.
2. Assess current available assays for endometrial evaluation in RIF, the need for follow up testing, and the available treatments.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

Reproductive Epigenetics and the Mighty Mitochondria

Paul C. Magarelli, M.D., Ph.D. (Chair)
HQA Fertility Centers
Kelly Lee Whiteside, L.A.C., D.pl.O.M., F.A.B.O.R.M.
Harmony Health, Inc.

Needs Assessment and Description

The role of mitochondrial function on reproductive competencies has traditionally been focused on the oocyte's decline of mitochondrial activity thereby causing chromosomal abnormalities. A new view is that it is the follicle itself that is the "source" of energy for oocyte function, not the oocyte itself. Focusing support on the mitochondrial function of the granulosa cells of the follicle may indeed improve reproductive outcomes. The educational need for this session was identified in the 2018 ASRM gap analysis and needs assessment to integrate complementary alternative medicine practices into interventions to improve health, wellness, and reproduction. This presentation will explain energy dynamics in the cell, the role of mitochondria, controversies regarding the role of mitochondria on reproduction, and recommend interventions for managing energy potential of gametes and or embryos. The session is designed for physicians, nurses, scientists, and all allied health professionals to improve reproductive outcomes in patients.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain the energy dynamics in the cell and whole organism and how the role of mitochondria plays in health and wellness and reproduction.
2. Discuss controversies regarding the role of mitochondria on reproductive competency and outcomes.
3. Summarize and recommend the interventions, both western and integrative, for managing energy potential of the gametes and or embryo.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME 

Debate: Mullerian Classification: ESHRE vs ASRM - Which is Better?

John C. Petrozza, M.D. (Chair)
Massachusetts General Hospital
Samantha Pfeifer, M.D.
Weill Medical College of Cornell University
Artur Ludwin, M.D., Ph.D.
Jagiellonian University

Needs Assessment and Description

Historically, loss of reproductive capacity was assumed and accepted under certain conditions including congenital absence of uterus. Today, this concept is being challenged with the advent of innovative surgeries such as uterine transplantation. There are many less invasive and innovative techniques developed and advocated for other uterine anomalies including congenital absence of the cervix and/or vagina. Traditionally, the symptomatic patient with hematometra due to this outflow tract obstruction has been managed with removal of the uterine body. In the past decade, attempts at conserving uterine function have been made with innovative techniques including utero-vaginal anastomosis. There is debate as to whether this is effective and even appropriate. Many reproductive endocrinologists are unaware of the surgical approaches and the pros and cons of this option identified in the ASRM gap analysis and needs assessment. This debate designed for physicians, nurses, and all allied health professionals, will discuss surgical methods for the management of cervical agenesis, and the advantages and disadvantages of conserving the uterine body while managing the hematometra.

ACGME Competency

Medical Knowledge
Patient Care
Interprofessional Collaborative Skills

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the various surgical methods available for the management of cervical agenesis.
2. Explain the various potential advantages and disadvantages of conserving the uterine body while managing the hematometra.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION



Environmental Chemicals and Reproduction: From Knowledge to Action

Jorge E. Chavarro, M.D., Sc.D. (Chair)

Harvard University

Audrey J. Gaskins, Sc.D.

Emory University

Linda Guidice, M.D., Ph.D.

University of California, San Francisco

Needs Assessment and Description

The American Society for Reproductive Medicine (ASRM) 2017 gap analysis identified as a need an update on current knowledge on environmental factors affecting fertility. This interactive session will directly address this gap by providing an update on emerging literature on novel environmental threats to reproduction that reproductive medicine specialists need to know for patient education. This session is targeted for clinical and allied health professionals that interact with patients who are in the reproductive process.

ACGME Competency Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify the most important sources of air pollution and their impact on female and male fertility.
2. Identify the most important sources of human exposure to pesticides and their impact on female and male fertility.
3. Describe the emerging literature on how technologies used for power generation may impact human reproduction.



INTERACTIVE SESSIONS

Wednesday, October 16, 2019

1:30 pm - 2:30 pm

INTERACTIVE SESSION

CME

Family Planning Fellows Showcase: Frontiers in Complex Family Planning

Maureen Baldwin, M.D., M.P.H.
Oregon Health and Science University
Andrea H. Roe, M.D., M.P.H.
University of Pennsylvania
Erica P. Cahill, M.D., M.S.
Stanford University
Nora Doty, M.D., M.C.R.
Oregon Health and Science University

Needs Assessment and Description

Fellowship training in complex family planning includes a research component. The fellows are asked to do research on topics where little research exists and therefore the demand for outcomes data is needed. In this session three fellows, who recently graduated, will share their research outcomes on the topics of pregnancy intendedness after miscarriage, novel strategies for on-demand contraception, and the effect of progestin on mood symptoms and cortisol levels in hair. This classic panel presentation targets physicians, nurses, mental health professionals, counselors, fellows, and residents to educate participants on the latest research about complex family building.

ACGME Competency

Practice-based Learning and Improvement
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify characteristics of women who will prefer contraception after miscarriage.
2. Describe pregnancy outcomes after novel oral on-demand contraception.
3. Compare mood outcomes after intrauterine progestin.



ADDITIONAL SESSIONS

Monday, October 15, 2019

10:45 am - 12:15 pm

SURGICAL VIDEO TUTORIAL

Surgical Video Tutorial: Innovations in Surgical Fertility Preservation

John C. Petrozza, M.D. (Chair)
Massachusetts General Hospital
Kutluck H. Oktay, M.D., Ph.D.
Yale University
Mindy S. Christianson, M.D.
Johns Hopkins University

Needs Assessment and Description

ASRM has also determined that, even though there is a significant role of reproductive surgery in appropriately selected patients, there is a relative insufficiency of training in advanced laparoscopic, endoscopic, and microsurgical skills. It has been reported that one in five graduating REI trainees believe that additional surgical training would augment their skill set. This interactive video session will feature video footage of surgical cases reviewing optimal methods and approaches for ovarian and uterine fixation, techniques for partial oophorectomy for ovarian tissue cryopreservation, and orthoptic approaches for ovarian tissue transplantation. This session is designed for the reproductive endocrinology and infertility specialist and general obstetrics and gynecologist who desires to enhance their surgical experience and knowledge of laparoscopic skills.

ACGME Competency

Practice-based Learning and Improvement
Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss ovarian and uterine transposition techniques: laparotomy; robotic and traditional laparoscopy by viewing case presentations.
2. Summarize ovarian tissue harvesting techniques for ovarian tissue cryopreservation for fertility preservation.
3. Describe options for transplantation of thawed ovarian tissue to optimize follicular development.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

ABOG - Kenneth Ryan Ethics Symposium: Ethics in Embryo Research: In Consideration of Patients, Progeny, and Professional Norms

Supported by a 2013 endowment from the American Board of Obstetrics and Gynecology

Alto Charo, J.D. (Chair)
University of Wisconsin - Madison
Ben Hurlbut, Ph.D.
Arizona State University
Feng Zhang, Ph.D.
The Broad Institute

Needs Assessment and Description

Rapid advances in research involving human embryos, including developments in germline genome editing with potential heritable implications, raise a myriad of questions traversing scientific, social, political, legal, and ethical realms. This presentation will frame the current debate over embryo research from the perspectives of emerging technologies, developing governance structures, and societal concerns for patient and offspring protection. Overarching ethical principles will guide discussion of embryo research and its potential to transition from the mind's eye to clinical applications. This session is for clinicians, researchers, scientists, legal professionals, and allied health professionals.

ACGME Competency Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe formal regulatory approaches toward germline editing in the US and other developed countries.
2. Summarize ongoing governance deliberations at the World Health Organization.
3. Discuss embryo research from the perspective of emerging technologies.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME 

Are Specialized Sperm Function Tests Clinically Useful?

Armand Zini, M.D., F.R.C.S.C. (Chair)

McGill University

Sandro Esteves, M.D., Ph.D., M.Sc.

Campinas, Brazil

Douglas T. Carrell, Ph.D.

University of Utah School of Medicine

Needs Assessment and Description

Advanced sperm function tests have demonstrated some value in predicting reproductive outcomes and guiding therapeutic decisions. With the advent of new sperm function markers and further refinements in assisted reproduction, a re-evaluation of these tests is needed per ASRM 2017 gap analysis and needs assessment. Recently, in order to optimize ICSI pregnancy outcomes, clinicians have proposed utilizing testicular rather than ejaculated sperm for ICSI in those couples with poor sperm quality, particularly, sperm DNA fragmentation. The rationale for this approach is that in infertile men, testicular sperm have lower levels of damage than ejaculated sperm because sperm defects, such as, DNA fragmentation are presumed to occur in the post-testicular environment. Although data on the clinical value of sperm function tests are promising, there are too few studies to make firm recommendations for clinical practice. This session will discuss the biological basis of specialized sperm function tests, describe the clinical utility of specialized sperm function tests, and summarize the role of testicular sperm retrieval in infertile men with abnormal sperm function. The target audience includes physicians, nurses, and allied health professionals.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the biological basis of specialized sperm function tests.
2. Describe the clinical utility of specialized sperm function tests.
3. Summarize the role of testicular sperm retrieval in infertile men with abnormal sperm function.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

New Updates on Therapies for Infertility in Polycystic Ovary Syndrome (PCOS)

Juha Tapanainen, M.D., Ph.D. (Chair)
University of Helsinki, Finland
 Richard S. Legro, M.D.
Penn State College of Medicine
 Joop B.E. Laven, M.D., Ph.D.
Erasmus University

Needs Assessment and Description

The international Guidelines for diagnosis and treatment in PCOS was developed by an international committee to meet the needs of this diverse population and will be introduced at the 2019 ASRM Annual Congress and Expo. Translating these guidelines into clinical care will be an important component of improving care in PCOS patients. This symposium is designed to assist clinicians with understanding and using the guidelines to effectively choose between different treatment options for patient with PCOS. The target audience is physicians, nurses, mental health professionals, and clinic staff.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss different ovulation regimens in PCOS.
2. Demonstrate the ability to choose between treatment options as well as identifying the risks and benefits of each.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



Management of Infertility in Low Resource Settings

Christopher Herndon, M.D. (Co-chair)
University of Washington
 Julia V. Johnson, M.D. (Co-chair)
University of Massachusetts Medical School
 Sheryl Vanderpoel, Ph.D.
Population Council, W.H.O. (retired)
 Kevin J. Doody, M.D.
CARE Fertility
 Melissa Harmon, R.N.
CARE Fertility

Needs Assessment and Description

It has been estimated that only a quarter of infertile couples in the United States can sufficiently access infertility care. Globally, that percentage is less than 5%. In 2015, ASRM launched the Access to Care movement as a collaborative call to action for universal access to reproductive care through education, research, clinical innovation, and outreach. This symposium will discuss barriers that limit access to care and evidence-based clinical approaches to optimize management of infertility in challenging resource constrained settings. The presentation will describe psychosocial impact associated with involuntary childlessness, identify factors that contribute to disparities in access to infertility care, review strategies to optimize clinical management of infertility in resource-constrained settings, and examine current data for emerging approaches to lower cost of complex assisted reproductive technologies. The target audience includes physicians, nurses, and all allied health professionals interested in this subject.

ACGME Competency

Patient Care

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe psychosocial impact associated with involuntary childlessness in patients from lower resource, and often socioculturally diverse, communities.
2. Identify factors contributing to disparities in access to infertility care in both national and global settings.
3. Review evidence-based strategies to optimize clinical management of infertility in resource-constrained settings.
4. Examine current data for emerging approaches to lower cost and complexity assisted reproductive technologies such as intravaginal culture.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME 

The New Modern Family: Family-building and Co-parenting in the 21st Century

Linda Kondilis, Psy.D. (Chair)
Private Practice
 Laurie McKenzie, M.D.
Baylor College of Medicine
 Heather Ross, J.D.
Ross & Zuckerman, LLP

Needs Assessment and Description

Reproductive endocrinology practices, mental health professionals, and attorneys are encountering patients with a variety of nontraditional family structures including families with multiple parents, polyamorous groups, or known donor arrangements where the donor has a parental role. Creating an inclusive and legally valid environment for the multiple parenting arrangements is critical for a family's well-being. In this session we will review methods for creating inclusivity, describe medical, psychological, and legal approaches, and discuss the difference between assumptions and research regarding multi-parent child rearing. This symposium will describe important nuances in the contemporary social framework from a medical, mental health, and legal perspective to help physicians, nurses, legal professionals, mental health professionals, and administrators work more sensitively and knowledgeably with polyamory groups and multiple parenting arrangements.

ACGME Competency
 Patient Care

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize medical, psychological, and legal approaches with multi-parent family building.
2. Describe methods for creating inclusivity with diverse family structures within a practice setting.
3. Evaluate the difference between assumptions regarding multi-parent child rearing and empirical evidence research.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME 

Ovarian Tissue Cryopreservation and Transplantation: 20 Year of Progress

Kutluk H. Oktay, M.D., Ph.D. (Chair)
Yale University School of Medicine
Isabelle Demeestere, M.D., Ph.D.
University Libre de Bruxelles
Nao Suzuki, M.D., Ph.D.
Marianna University

Needs Assessment and Description

Ovarian tissue cryopreservation and transplantation technology has shown tremendous progress in the last 20 years. As a result, it has recently been accepted as an established procedure by many societies, and there is a renewed interest in the procedure. This session is designed will review the scientific evidence and clinical data behind the development of ovarian tissue cryopreservation and transplantation, describe the contemporary methods of ovarian tissue cryopreservation and transplantation, and will summarize the areas of future development. . The target audience for this presentatin includes laboratory personnel, nurses, embryologists, REI specialists and reproductive surgeons.

ACGME Competency

Patient Care
Medical Knowledge
Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review the scientific evidence and clinical data behind the development of ovarian tissue cryopreservation and transplantation.
2. Describe the contemporary methods of ovarian tissue cryopreservation and transplantation.
3. Summarize the areas of future development.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

How to Build High Functioning Teams in the Embryology Lab

Blake R. Welch, M.B.A. (Chair)
Chicago IVF
David Ball, Ph.D.
Seattle Reproductive Medicine

Needs Assessment and Description

The presentation will present concepts and offer examples of how laboratory personnel can be successfully identified, hired, trained and assessed for competency. In 2018, the ASRM gap analysis and needs assessment identified as a need to develop tools for managers to be able to assess the appropriate personnel to hire for the laboratory and best methodology to train them. This course is designed to provide physicians, nurses, managers, supervisors, administrators, and staff from all levels and sized practices with tools they can use in their practices to assess competency, motivate personnel, proper communication to patients, what is needed to produce the best conditions for embryo development, and when is a good time to introduce new procedures and techniques to lab personnel.

ACGME Competency

Practice-based Learning and Improvement
Professionalism
Teams and Teamwork

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Assess competency in escalating skill set procedures.
2. Discuss how to motivate personnel to achieve their highest capability.
3. Determine when new techniques and procedures may be introduced into the laboratory.
4. Review what laboratories need to produce the best conditions for embryo development.
5. Discuss how to properly communicate to patients on what happens in the lab.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

The Endometrium and Recurrent Pregnancy Loss

Sony Sierra, M.D., M.Sc., F.R.C.S.C. (Chair)

TRIO Fertility

Steven L. Young, M.D., Ph.D.

UNC School of Medicine

Arri Coomarasamy, Ph.D.

University of Birmingham

Needs Assessment and Description

Almost 50% of women and couples with recurrent early pregnancy loss have no clear diagnosis. This session will address what is known in regards to endometrial influence on recurrent early pregnancy loss including current knowledge with respect to molecular techniques to assess chronic endometritis, progesterone supplementation, and the role of the microbiome in predicting live births. The intended audience will include physicians, scientists, nurses, mental health professionals, and all clinic staff involved in the care of couples with recurrent early pregnancy loss.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the current evidence for endometrial support with progesterone.
2. Review new molecular techniques for the assessment of the endometrium including haematoxylin and eosin staining (H&E) and CD 138 immunohistochemistry.
3. Assess the microbiome to predict live births.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

ESHRE Symposium: Looking Beyond the XX Factor:

Jackson Kirkman-Brown, M.B.E., Ph.D. (Chair)
University of Birmingham
 Adelheid Soubry, Ph.D.
University Leuven

Needs Assessment and Description

When considering reproductive potential, little focus has been directed toward men and even less on the outcomes beyond successful fertilization. New evidence suggests that paternal genetics and sperm DNA quality can influencing the risk of miscarriage and epigenetic factors can affect subsequent children and even grandchildren. New studies continue to emerge regarding both of these issues. However, firm recommendations for decreasing miscarriage risk cannot yet be made because of a lack of well-defined criteria and other methodological inconsistencies of these studies. For epigenetic inheritance, no useful tests exist, but considerations have been given to lifestyle and health considerations. This session will discuss available and potential diagnostic options and their clinical implications. The audience will be encouraged to ask questions and discuss their thoughts about post-conception paternal effects. This target audience includes anyone involved in reproductive medicine.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the biological and clinical implications of sperm DNA quality in miscarriage.
2. Identify paternal sperm risk factors for idiopathic miscarriage.
3. Appraise current diagnostic options related to paternal causes of miscarriage.
4. Describe the biological and clinical implications of paternal epigenetic factors in multi-generational offspring health.
5. Define paternal lifestyle and behaviors that may have implications for offspring health.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

ISAR Symposium: Infertility & Tuberculosis

Hrishikesh Pai, M.D., M.Sc. (Chair)

Bloom IVF Lilavati Hospital

Jaideep Malhotra, M.B.B.S., M.D.

Rainbow IVF

Madhuri Patil, M.D.

Patil Fertility and Endoscopic Clinic

Firuz Parikh, M.D., D.N.B., Ph.D.

Jaslok Hospital and Research Centre

Rishma Dhillon Pai, M.D.

Lilavati Hospital

Needs Assessment and Description

Tuberculosis (TB) remains a major health problem in the developing world, where genital TB is responsible for a significant proportion of the couples presenting with infertility. With the globalization and movement of patients, this problem is no longer confined to the developing world. As a result, clinicians need to be educated about infertility related to genital TB. This course will compare different diagnostic modalities used by clinicians to identify patients with genital TB, summarize the impact of TB on patients' fertility and overall health, and discuss management modalities which can be used to optimize patient outcomes. The session is designed for obstetric and gynecologists, reproductive endocrinologists, fellows, residents, nurses, and social workers.

ACGME Competency

Patient Care

Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify a case of genital tuberculosis.
2. Compare the different diagnostic modalities and know their clinical application.
3. Review the impact of tuberculosis on the genital tract in both men and women, and the impact on their overall health.
4. Analyze the management modalities to optimize patient outcomes.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME 

MEFS Symposium: Controversies in ART

Botros Rizk, M.D., M.A., F.R.C.O.G.,
F.R.C.S.(C), H.C.L.D., F.A.C.O.G., F.A.C.S. (Chair)
University of South Alabama
Richard J. Paulson, M.D., M.S.
University of Southern California
Bruce Shapiro, M.D., Ph.D., H.C.L.D.
Fertility Center of Las Vegas

Needs Assessment and Description

Highly controversial topics in reproductive medicine today include preimplantation genetic testing for aneuploidy, compulsive day-5 embryo transfer and freeze-all policies. Debates on the relative merits of these practices are ongoing and a need has been identified to obtain more clinical research data on these topics. This session will identify clinical conditions which favor day-3 versus day-5 transfers, discuss pros and cons of PGT-A, and interpret the evidence on freeze-all policies. The presentation is designed to critically appraise the medical evidence and offer a balanced view on each of these topics. The target audience includes reproductive endocrinologists, embryologists, scientists, nurses, mental health professionals, and genetic counselors.

ACGME Competency

Patient Care
Practice-based Learning and Improvement
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify the clinical conditions which favor day 3 and day 5 transfers.
2. Discuss the pros and cons of PGT-A.
3. Interpret the evidence on the freeze-all policy.



SYMPOSIA

Monday, October 14, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

SSR Symposium: Fertility Preservation- Existing and Emerging Fertility Preservations Options for Women and Men

Mary B. Zelinski, Ph.D. (Chair)
Oregon Health & Sciences University
So-Youn Kim, Ph.D.
University of Nebraska Medical Center
Kyle E. Orwig, Ph.D.
University of Pittsburgh

Needs Assessment and Description

Fertility preservation is recognized as an important pre-treatment consideration for patients diagnosed with malignancies and other life-threatening conditions. While cryopreservation of sperm, oocytes and embryos remains the standard of care, many other innovative techniques are emerging as options for these patients. Awareness of fertility preservation techniques for both women and men has been identified as an educational need by the ASRM Continuing Medical Education Committee. This symposium will outline emerging fertility preservation options including cryopreservation of ovarian and testicular tissue, ovarian transplantation, precision medicine approaches, and stem cell therapy. Each fertility preservation method will be reviewed to determine benefits and which option best fits into the treatment plan for patients prior to or after chemotherapy. The target audience for this symposium includes obstetrics and gynecologists, reproductive endocrinologists, andrologists, embryologists, scientists, nurses, mental health professionals, and clinic staff interested in fertility preservation options.

ACGME Competency

Systems-based Learning
Medical Knowledge
Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe new methodologies developed for fertility preservation in the ovary and testis.
2. Determine benefits; success rate, amount of restoration of fertility, and endocrine hormones, of each fertility preservation method.
3. Evaluate how a fertility preservation option fits into treatment for patients prior to or after chemotherapy or due to another infertility issue.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

KY Cha Symposium in Stem Cell Technology and Reproductive Medicine: Germline and Mitochondrial Gene Therapy

Supported by the Asia-Pacific Biomedical Research Foundation

Charles A. Easley, Ph.D., M.S. (Chair)

University of Georgia

Ina Dobrinski, Ph.D., D.V.M.

University of Calgary

Hugh S. Taylor, M.D.

Yale University

Needs Assessment and Description

Regenerative medicine research continues to expand, and the use of stem cells to treat reproductive disorders represents a future clinical therapy option. Understanding how stem cells can be utilized to treat reproductive disorders is of major importance to driving stem cell-based therapies to the clinic. This symposium addresses the educational need identified in the ASRM gap analysis and needs assessment by highlighting novel stem cell-based approaches for treating reproductive disorders including endometrial regeneration, reconstruction of uterine abnormalities, and mesenchymal stem cell therapies for prolapse and incontinence in children. We will discuss state of the art stem cell-based therapies, summarize clinical impacts of current therapies, and examine therapies to improve fertility outcomes of patients. The session is designed for physicians, embryologists, scientists, nurses, geneticists, and all allied health professionals in reproductive medicine.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Examine state-of-the-art stem cell-based therapies for reproductive disorders.
2. Assess clinical impacts of current stem cell-based therapies.
3. Discuss potential for current therapies to improve fertility outcomes.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

Access to Fertility Preservation Care: From Policy to the Patient

Akanksha Mehta, M.D., M.S. (Chair)
Emory University School of Medicine
H. Irene Su, M.D., M.S.C.E.
University of California
Joyce Reinecke, J.D.
Alliance for Fertility Preservation
Jim M. Dupree, IV, M.D., M.P.H.
University of Michigan

Needs Assessment and Description

Access to fertility preservation is critically important to patients with benign and malignant conditions. This access is often limited by a number of barriers including insurance coverage, geographically limited clinical expertise, and lack of knowledge about fertility preservation techniques and options. This course will cover the state of regional and national health policy efforts to improve access to care and explore barriers in access to fertility preservation and the means to break down these barriers. The target audience consists of practicing infertility clinicians, including REI, reproductive urology, patient advocates.

ACGME Competency

Patient Care
Systems-based Practice

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain the current state and national policies for fertility preservation.
2. Review the barriers to fertility preservation for men and women.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



Quality Management in Human ART: Time to Revisit the Issues

Barry R. Behr, Ph.D. (Chair)
Stanford Fertility and Reproductive Medicine Center
 Mitchel C. Schiewe, Ph.D., M.S.
Ovation Fertility
 Dawn A. Kelk, Ph.D., H.C.L.D.
Yale Fertility Center

Needs Assessment and Description

Quality control practices are an imperative part of a laboratory's quality management (QM) system. Daily data collection events can become mundane and tedious to staff pressed by a busy IVF lab schedule. Effective quality control practices in the lab insure that a pattern of out-of-range values or potentially problematic symptoms are not being ignored, before patient samples are put at risk of suboptimal care or possible loss. An educational need identified by ASRM is to review best practices on data entry and reporting of results to improve patient outcomes. In this symposium, we will discuss methods to detect patterns of sub-optimal lab functioning as well as innovative methods for remote data collection and alarm monitoring systems, the importance of laboratory QC, and how to prioritize QC measures for staff. The target audience includes embryologists, andrologists, reproductive endocrinologists, nurses, laboratory technicians, and clinic staff.

ACGME Competency

Patient Care
 Systems-based Practice
 Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain the value of teaching staff the importance of prioritizing QC measures to establish patterns of sub-optimal function and potential default.
2. Review with embryologist and andrologists the importance of laboratory QC and how it can improve patient outcomes.
3. Discuss with embryologist and andrologist innovative remote data collection and alarm monitoring systems that are more comprehensive in the assessment of equipment function.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

Implementation of an Embryo Donation Program within Your Practice: Medical, Legal, and Psychological Aspects

Eric A. Widra, M.D. (Chair)
Shady Grove Fertility Center
Angela K. Lawson, Ph.D.
Northwestern University
Nidhi Desai, J.D.
Desai & Miller

Needs Assessment and Description

Supernumerary embryos are a frequent consequence of ART. The most common options for embryo disposition after completion of family building include discarding, donation to research, and donation to another individual or couple. Embryo donation is an under-utilized option and provides a lower cost option for family building. This course will focus on strategies for incorporating embryo donation into your practice. The medical discussion will focus on identification of potential embryo donors and recipients, counseling couples regarding embryo donation as a disposition option, creation of a database for selection including what information is pertinent to share, and fee structures. The mental health discussion will address the unique psychological issues that may arise with embryo donation compared to other methods of third party reproduction. The legal discussion will focus on the issues of informed consent, disclosure, and protection of both donor and recipient couples and their families. This session is for physicians, nurses, laboratory scientists, mental health professionals, legal professionals, genetic counselors, and REI administrators.

ACGME Competency

Patient Care
Medical Knowledge
Systems-based Practice

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify potential embryo donors and embryo recipients within your practice.
2. Develop and use an embryo donation database.
3. Describe the unique psychological issues that arise with embryo donation.
4. Assess the legal ramifications of embryo donation and explore the issues of disclosure and protection.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



RESPECT YOUR ENEMY: Marketing your practice within the SART Advertising Guidelines in a competitive market

Sara Mooney, B.A. (Chair)
Seattle Reproductive Medicine
 Amy Hall, R.Ph.
Catalyst Healthcare Marketing
 Paul C. Lin, M.D.
Seattle Reproductive Medicine

Needs Assessment and Description

Fertility practices aspire to attract and serve as many patients possible with the highest standards of integrity. SART has developed advertising guidelines for its members to keep the market fair, factual and respectful to their competition without making claims that are unsubstantiated. ASRM has identified as an educational need ways to use websites, social media, and patient communication avenues to increase clinic market shares. This session will review SART advertising guidelines and examine strategies for utilizing SART summary reports to market practices within these guidelines. The session will also consider other practice marketing strategies and ways to monitor marketing firms that don't follow SART guidelines. The intended audience is reproductive managers, physicians, nurses, embryologist and administrators.

ACGME Competency

Interpersonal and Communication Skills
 Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review and inform the audience of the SART Advertising Guidelines and the rationale of those guidelines.
2. Utilize your SART clinic summary report and other tools to educate your current or prospective patients in a competitive marketplace.
3. Discuss and recommend marketing strategies for your practice that are in compliance with the SART Advertising Guidelines.
4. Identify options and tools to monitor outside marketing firms that don't understand SART Advertising Guidelines. What is the responsibility of the clinic?



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



Fertility Trajectory of Klinefelter Syndrome: From Childhood, Adolescence to Adulthood

Peter Chan, M.D., C.M., M.Sc., F.R.C.S.(C), F.A.C.S.
(Chair)

McGill University

Robert D. Oates, M.D.

Boston University

Darius A. Paduch, M.D., Ph.D.

Weill Cornell Medical College

Needs Assessment and Description

Klinefelter syndrome is the most frequently diagnosed genetic disorder on classical karyotype analysis. Over 90% of men with non-mosaic Klinefelter syndrome are azoospermic and will require surgical sperm extraction with intracytoplasmic sperm injection (ICSI) to have genetic children. Recent studies have generated controversy as to whether young boys and young men with Klinefelter syndrome should have sperm retrieved surgically and cryopreserved for future use with ICSI. On the one hand there is clear evidence of germ cell depletion in testes of boys and men with Klinefelter syndrome, and some studies indicating an age-related decline in the chance of obtaining sperm usable for ICSI. On the other hand surgical sperm retrieval carries significant risks and costs that must be justified prior to offering the procedure to youngsters who may not be ready to consider fertility issues. With the increasing availability of minimally invasive techniques for prenatal genetic diagnosis for pregnancies at risks, it is foreseeable that more patients with Klinefelter syndrome will be identified in childhood. Thus, there is an educational need identified for healthcare professionals in reproductive medicine to be aware of the indication of fertility preservation for these subjects with Klinefelter syndrome. This session will discuss current evidence in the fertility status of patients with Klinefelter syndrome, review barriers to implementing fertility preservation for young patients with Klinefelter syndrome, and summarize the controversies surrounding fertility preservation for young patients with Klinefelter syndrome. The target audience includes physicians, nurses, and allied health professionals.

ACGME Competency

Patient Care

Medical Knowledge

Interpersonal and Communication Skill

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the current evidence suggesting an age-dependent decline in the fertility status of patients with Klinefelter syndrome.
2. Review the bio-psycho-social barriers in implementing fertility preservation for young patients with Klinefelter syndrome.
3. Summarize the controversies around fertility preservation for young patients with Klinefelter syndrome.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



Patient-Centered Research in Uterine Fibroids: The COMPARE-UF Experience

Elizabeth A. Stewart, M.D. (Chair)

Mayo Clinic

Sateria Venable, B.Arch.

The Fibroid Foundation

Wanda K Nicholson, M.D., M.B.A., M.P.H.

University of North Carolina

Evan Myers, M.D., M.P.H.

Duke University

Needs Assessment and Description

Uterine fibroids are one of the most common problems in reproductive age women and yet there is relatively little research to guide therapy. Moreover, there has been little patient input research in this key field. Risk and benefits of uterine fibroid treatment has been identified by ASRM as an educational need. This symposium will describe the process used to establish a 9-center comparative effectiveness study of uterine fibroid treatment (COMPARE_UF) and share early results of the study. The target audience includes gynecologists, reproductive endocrinologists, fellows, residents, nurses, and clinic staff involved in the care of patient with fibroids.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the barriers to comparative effectiveness research in uterine fibroids.
2. Discuss findings of the comparative effectiveness of surgical treatments for uterine fibroids.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME 

ASPIRE Symposium: New IVM Approaches for PCOS Patients

Peng Cheang Wong, M.B.B.S, F.R.C.O.G., F.A.M.S.
(Chair)

Yong Loo Lin School of Medicine

Duru Shah, M.D. (India)

Gynaecworld Assisted Fertility Center

Thi Ngoc Lan Vuong, M.D., Ph.D. (Indonesia)

University of Medicine at Ho Chi Minh

Budi Wiweko, M.D., Ph.D.

University of Indonesia

Needs Assessment and Description

There are ethnic and phenotypic differences in Asian patients with PCOS versus other ethnic groups. In the context of cross-border reproductive care, there is a need for physicians to understand and recognize that these differences exist. Although in vitro maturation (IVM) was introduced many years ago, its clinical application is not extensive. This session will cover a new IVM approach that was developed in Vietnam and will update the audience with the latest guidelines on management of insulin resistance in PCOS patients. The target audience for this presentation is fertility physicians, clinical practitioners, obstetrics and gynecologists, and general practice physicians.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the ethnic and phenotypic differences in Asian PCOS patients.
2. Determine how a new IVM approach may be used for PCOS patients undergoing IVF treatments.
3. Summarize recent guidelines on the management of insulin resistance in patients with PCOS.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

ALMER Symposium: Management of mosaic embryos after PGT-A in ART

Newton Busso, M.D., Ph.D. (Chair)

Projeto Alfa

Benjamin Sandler, M.D.

Reproductive Medicine Associates of New York

Carlos E. Sueldo, M.D.

University of California, San Francisco

Needs Assessment and Description

Mosaic embryos have become a challenge to clinicians and ART patients, especially since **next generation sequencing (NGS)** has become the platform of choice for PGT-A. ASRM has identified this issue as an educational need for several years. Whether to discard, freeze or transfer mosaic embryos in different clinical situations is ultimately a joint decision made by the clinician and the patient after comprehensive counseling. In this session, we will examine the biologic mechanisms involved in the formation of mosaic embryos during ART procedures and elucidate the significance of mosaic embryos as determined by PGT-A. This knowledge will help clinicians make appropriate recommendations to their patients. This presentation is designed for reproductive endocrinologists, embryologists, geneticists, genetic counselors, nurses, legal professionals, mental health professionals, and reproductive medicine administrators.

ACGME Competency

Patient Care

Medical Knowledge

Practice-based Learning and Improvement

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe the biologic mechanisms involved in generating mosaic embryos during ART procedures.
2. Evaluate the significance of mosaic embryos in ART, so that clinicians can make appropriate recommendations to their patients.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

Oocyte maturation in vitro and female fertility preservation

Rong Li, M.D., Ph.D. (Chair)
Peking University Third Hospital
 Xiaoyan Liang, M.D., Ph.D.
The 6th Affiliated Hospital of Sun Yat-sen University
 Heng-yu Fan, Ph.D.
Life Sciences Institute, Zhejiang University

Needs Assessment and Description

Oocytes of high quality are the basis for successful assisted reproductive treatments. Unfortunately, there has been little success in efforts to improve oocyte quality in either clinical practice and basic research settings. A better understanding of emerging technologies and scientific advancements in embryo development to improve oocyte in vitro maturation (IVM) has been identified by ASRM as an educational need. This session will describe basic protocols and the clinical status of IVM technology, review the key molecular mechanism of oocyte IVM, and solicit recommendations to improve IVM methods. This presentation is for physicians, embryologists, scientists, bioethicists, geneticists, nurses, and other professionals interested in oocyte maturation in vitro.

ACGME Competency Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain the basic protocols and clinical status of IVM technology.
2. Review the key molecular mechanism of oocyte maturation in vitro.
3. Recommend strategies to improve IVM system.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM

CME

FDA Symposium: Reproductive Donor Eligibility and Compliance Update for Reproductive Establishments

Simone P. Porter, M.D., M.P.H. (Chair)
Food and Drug Administration, Center for Biologic Evaluation and Research

Ping He, M.D.
Food and Drug Administration, Center for Biologic Evaluation and Research

Needs Assessment and Description

The Food and Drug Administration (FDA) is responsible for protecting the public health by assuring the safety, effectiveness, quality, and security of human drugs and biologics. Its mission is to ensure that safe, effective drugs and biologics are available to the American people. The Division of Human Tissues, Office of Tissues, and Advanced Therapies within The Center for Biologics Evaluation and Research (CBER) provide regulatory oversight for human cells, tissues, or cellular or tissue-based products (HCT/Ps) such as semen, oocytes, and embryos used in assisted reproductive technology (ART) procedures. This presentation will provide in-depth information about donor eligibility requirements, including donor screening, testing, and donor eligibility determinations. In this session, we will review recently published rulemaking and guidance documents relevant to reproductive HCT/P establishments, discuss the risk-based inspectional approach to prioritizing HCT/P inspections, and provide an overview of inspection data and compliance actions. This session is designed for physicians, nurses, allied health professionals, embryologists, scientists, administrators, and law professionals to educate them on FDA rules and regulations that govern HCT/Ps.

ACGME Competency

Professionalism
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Describe how to make a donor eligibility determination in accordance with existing and recently published rulemaking and guidance documents.
2. Summarize the final rule: revisions to exceptions applicable to certain HCT/Ps.
3. Describe the risk-based inspectional approach to prioritizing HCT/P inspections.
4. Identify the most common deficiencies among reproductive HCT/P establishments.



SYMPOSIA

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

SYMPOSIUM



World Health Organization (WHO) Symposium: Global Call to Action to Enhance Fertility Care A Non-CME Symposium

James Kiarie, M.B.Ch.B., M.M.E.D (Chair)
World Health Organization
Rachel Snow, Sc.D.
United Nations Population Fund
Dr. Kittipong Sae-Jeng
Thailand Department of Health
Oladapo A. Ashiru, O.F.R., M.B.B.S., M.Sc., Ph.D.
Medical ART Center, Nigeria
David Ntirushwa, M.D.
University Teaching Hospital of Kigali
Dmitry Kissin, M.D., M.P.H.
Centers for Disease Control and Prevention

ACGME Competency Systems-based Practice

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the global call to action and strategies to enhance availability of assisted reproduction globally.
2. Describe the challenges and opportunities in implementing the call to action at the country and global level.

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Needs Assessment and Description

Infertility affects millions of couples globally and is associated with negative social and mental health impacts. However, provision of assisted reproduction services is limited in many settings. Addressing the gap in availability of assisted reproduction services is important to ensure universal access to sexual and reproductive health services for all. Furthermore, professionals involved in sexual and reproductive care often encounter patients with infertility or subfertility and require regular updates on assisted reproduction. The session will focus on the global call to action to address inequalities in the availability of assisted reproduction services. Panelists will discuss how to implement the global call to action in-order to improve access to assisted reproduction services. The session will provide insights into successes, lessons learnt and ongoing challenges as various countries from the Americas, Asia and Africa seeks to strengthen provision of assisted reproductive services as part of Universal Health Care (UHC). This presentation is designed for physicians, nurses, policy makers, administrators, and other health-care professionals involved in caring for patients with infertility, or developing policies related to infertility.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

Howard and Georgeanna Jones Endowed Symposium on Assisted Reproductive Technology: Growing Gametes and Embryos; Where Are We Now?

Endowed by a 2010 educational grant from EMD Serono, Inc.

Rebecca Krisher, Ph.D. (Chair)
Colorado Center for Reproductive Medicine
Michelle Lane, Ph.D.
Monash IVF Group
T. Arthur Chang, Ph.D., E.L.D., H.C.L.D.
University of Texas

Needs Assessment and Description

Breakthroughs in gamete and embryo biology are being reported faster than ever. As basic research leads to new technologies, we gain the ability to manipulate in vitro systems and translate new knowledge to clinical application. However, it can be difficult to keep up with the promise and potential of new reports in this area. This interactive session will discuss basic research from the perspective of practical procedures for the laboratory and potential clinical breakthroughs for application in this dynamic field. The intended audience includes clinicians, embryologists, scientists, nurses, managers, and anyone wishing to update their knowledge and ask questions about cutting edge technologies in the area of gametes and embryos.

ACGME Competency

Patient Care
Medical Knowledge
Systems-based Learning
Practice-based Learning and Improvement
Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Explain the science and procedures behind recent advancements in the production of gametes from stem cells, and the clinical application of in vitro maturation (IVM) before day 0.
2. Discuss how emerging knowledge of preimplantation embryo physiology may impact the clinical practice of ART between days 1 to 7.
3. Describe the biological implications and potential clinical applications of extended embryo culture in vitro, the production of synthetic blastoids, and trophoblast organoids beyond day 7.
4. Summarize the bioethical debate and regulatory environment concerning investigation and application of gamete and embryo technologies in the US and globally.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

Egg freezing - Are you ready for prime time? Developing and implementing an egg freezing program in your practice

Paul C. Lin, M.D. (Chair)
Seattle Reproductive Medicine
Caroline McCaffrey, Ph.D., H.C.L.D.
New York University Fertility Center
Tamara M. Tobias, N.P.
Seattle Reproductive Medicine
Kimball O. Pomeroy, Ph.D.
The World Egg Bank

Needs Assessment and Description

Egg freezing is prime time in social media, but are clinics prepared? How do you educate patients, provide informed consent, and set realistic expectations regarding success and the reality that they may never need these cryopreserved eggs? This symposium will discuss the details of egg freezing, patient education, utilization of egg banks and implementation in your practice and laboratory. This presentation is designed for physicians, nurses, lab directors, lab technicians, embryologists, and administrators.

ACGME Competency

Patient Care
Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss the risks and benefits of egg freezing with patients.
2. Review logistics, the patient experience and program development for these fertile (non-infertile) patients.
3. Summarize lab storage concerns, volumes, additional vitrification training and personnel.
4. Analyze studies of patient outcomes using frozen oocytes and the challenges of an egg bank in tracking those outcomes.
5. Debate if oocyte cryopreservation is a reliable preservation of a woman's fertility.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

Fertility Preservation for Transgender Youth: Special Considerations

Molly B Moravek, M.D., M.P.H. (Chair)
Michigan Medicine
James F. Smith, M.D.
University of California
Gwendolyn P. Quinn, Ph.D.
New York University
Leena Nahata, M.D.
Nationwide Children's Hospital

Needs Assessment and Description

Approximately 150,000 youth (ages 13-17) in the United States identify as transgender, gender non-conforming, or non-binary with an increasing number of adolescents presenting for gender-affirming hormone therapy. The World Professional Organization for Transgender Health, Endocrine Society, and the American Society for Reproductive Medicine (ASRM) recommend fertility preservation counseling prior to the initiation of gender-affirming hormone therapy; however, there is a paucity of data on the effects of long-term hormone therapy within future reproductive capacity. The shifting paradigm toward treating transgender adolescents with gender-affirming hormones at earlier ages has created a clinical dilemma for fertility specialists, who may not be historically trained to provide fertility care for adolescents or transgender people. Additionally, some transgender youth start puberty blockers in early puberty, a time when the success of established fertility preservation procedures is limited. ASRM identified transgender care as an educational need in 2018. This symposium will focus on fertility preservation counseling and procedures in transgender youth, both transfeminine and transmasculine. The medical discussion will contain the following components: hormonal interventions for transgender youth and logistics of interrupting them for fertility procedures; review of the available literature on the effect of gender-affirming hormone therapy on fertility; and options for fertility preservation in transgender youth, stratified by pubertal stage and stage of gender transition. The mental health discussion will address the unique psychological issues that may arise with discussing fertility with transgender youth

compared to adults and cisgender patients. These include inability to visualize a future until transition is complete, challenges in hearing how to refer their natal reproductive parts and capacities, and concerns about romantic partnering and fluid sexual orientation. This session was designed for reproductive endocrinologists, obstetricians, gynecologists, general practitioners, embryologists, andrologists, nurse practitioners, nurses, mental health professionals, social workers, and genetic counselors.

ACGME Competency

Patient Care
Medical Knowledge
Practice-based Learning and Improvement
Interpersonal and Communication Skills

Interprofessional Competencies

Interprofessional Communication
Teams and Teamwork

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Discuss what is currently known (and unknown) about the effect of different methods of gender affirming hormone therapy initiated in adolescence on future reproduction.
2. Describe the unique psychological issues that arise with fertility preservation counseling and procedures in transgender youth.
3. Identify inclusive language terminology for use in discussions or counseling with transgender youth that incorporates acknowledgement of gender dysphoria and body image concerns.
4. Counsel transgender youth at different stages of puberty about available options, including risks and benefits, for fertility preservation



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

Novel therapies for the treatment of Asherman syndrome

Fady I. Sharara, M.D. (Chair)
Virginia Center for Reproductive Medicine
 James Liu, M.D.
UH MacDonald Women's Hospital
 Carlos Simon, M.D., Ph.D.
University of Valencia

Needs Assessment and Description

Asherman syndrome is an acquired uterine condition characterized by the formation of scar tissue inside the uterus. In many cases the endometrial cavity is obliterated, functional endometrium is lost and sequelae such as secondary amenorrhea, infertility and abnormal placentation occur. Historically, the treatment has been limited to hysteroscopy with lysis of adhesions and it was not uncommon to require multiple surgeries. Unfortunately, surgery is often not curative for this condition despite improvements in surgical techniques. Over the past several years, novel therapies for the treatment of Asherman syndrome have emerged. The ASRM 2017 gap analysis and education needs assessment identified as an educational need the use of stem cells in the management of Asherman syndrome. This course will focus on the various types of medical treatments being developed and used in clinical trials or practice to promote endometrial development and regeneration. Discussion will be focused on the use of immunotherapies such as G-CSF, amniografting and the use of CD133 + Bone Marrow Derived Stem Cell therapy. The biologic plausibility of these treatments will be explored as well as counseling patients on the treatment options available to them at this time. The target audience includes physicians, scientists, nurses, mental health professionals, and counselors.

ACGME Competency

Patient Care
 Medical Knowledge

Learning Objectives

At the conclusion of this session, the participant should be able to:

1. Describe the clinical challenges posed by Asherman syndrome and the biologic plausibility for different modalities of treatment.
2. Discuss the efficacy and limitations of novel therapeutics for the treatment of Asherman syndrome.
3. Counsel patients on available treatment options.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM



Risk Management: Patient Education, Compliance, and Consenting

Lindsey McBain, B.A. (Chair)
IVI RMA NJ
Heather Ross, J.D.
Ross and Zuckerman
Brad Senstra, M.H.A.
Seattle Reproductive Medicine
Sue Jasulaitis, M.S.N., R.N.
Fertility Centers of Illinois

Needs Assessment and Description

The Healthcare field requires special management techniques that are not found in other businesses. It is important for the clinical and business units to work together to achieve a successful practice. This course is designed to provide key skills and business knowledge to support a manager from any department in a REI practice to ensure compliance and minimize risk. The target audience for this course consists of physicians, nurses, legal professionals, mental health professionals, and administrators.

ACGME Competency

Interpersonal and Communication Skills
Professionalism

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Identify best practices of how and when to advise patients to consult with an attorney when engaging in assisted reproductive technology.
2. Examine a clinic's potential liability for failing to protect their patients' legal interests when participating in third party reproduction.
3. Discuss business knowledge that will assist managers to minimize risk in clinics.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

AMMR Symposium: Strategies in Ovarian Stimulation Protocols to Improve Results in Assisted Reproduction

Jose Luis Castro Lopez, M.D. (Chair)

Prodigy

Antonio M. Gutierrez, M.D.

Instituto de Ciencias en Reproduccion Humana

Efrain Perez Pena, M.D.

Instituto de Ciencias en Reproduccion Humana

Needs Assessment and Description

Clinical data on different ovarian stimulation strategies with regard to the risk and benefits and outcomes of the protocols has been identified as an educational need by the ASRM Continuing Medical Education Committee. This presentation will review ovarian stimulation protocols, identify strategies in protocols for different patient groups, and describe individualized protocols for assisted reproduction to potentially improve outcomes. The intended audience for this presentation includes reproductive endocrinologists, embryologists, nurses, counselors, and all allied health professionals.

ACGME Competency

Patient Care

Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Review ovarian stimulation protocols.
2. Identify strategies in ovarian stimulation protocols to use for different groups.
3. Describe individualized patient protocols for assisted reproduction.



SYMPOSIA

Wednesday, October 16, 2019

3:45 pm - 5:00 pm

SYMPOSIUM

CME

CSR Symposium: Embryo Culture in Vitro and Development

Deng Chengyen (Co-chair)
Peking Union Medical College Hospital
 Zhou Canquan (Co-chair)
The First Affiliated Hospital of Sun Yatsen University
 Sun Yingpu, M.D., Ph.D.
The First Affiliated Hospital of Zhengzon University
 Huang Guoning
Chongqing Genetic and Reproductive Institute
 Sun Haixiang, M.D., Ph.D.
The First Affiliated Hospital of Ranjing University Medical School

Needs Assessment and Description

ASRM gap analysis identified the following as educational needs: an understanding of ART clinical data to improve outcomes, methods for selecting appropriate embryo culture medium for best results, and knowledge of emerging technologies for proving embryo development and assessment. This presentation will include a summary of Chinese ART data and comparison of this data with that of other countries, discussion of non-invasive rapid time-lapse imaging analysis of embryos before 4 blastomeres, review cytokinesis models in first mitosis, summarize embryo energy metabolism modes, and review of culture media buffer systems allowing ideal embryo development. The target audience includes physicians, embryologists, laboratory technicians, scientists, nurses, and allied health professionals.

ACGME Competency Medical Knowledge

Learning Objectives

At the conclusion of this session, participants should be able to:

1. Summarize data for each type of ART in China such as total cycle number, average patient age, main adverse complications and live birth rate for each type of ART.
2. Compare ART outcomes between China and other countries.
3. Discuss non-invasive rapid time-lapse imaging analysis of embryos before 4 blastomeres and how it has improved embryo morphology assessments.
4. Review Cytokinetic Models in first mitosis; associated with chromosome aneuploidy. Summarize embryo energy metabolism mode and include culture medium energy substrate.
5. Review culture media buffer system and their association with embryo pH homeostasis.



Specialty Track Pages

These at-a-glance content track pages are built around attendee special interests, so that groupings of course offerings according to content can easily be identified. Most of the content of the Scientific Congress addresses the interests of our REI and ART-focused attendees. Therefore, REI and ART content courses are not shown as separate tracks.

Access to Care Track

Monday, October 14

12:15 pm - 1:15 pm Roundtable Discussion Disparities in Male Reproductive Health



Jim Dupree, M.D., M.P.H.
University of Michigan

1:30 pm - 2:30 pm Interactive Session How Do We Reach the Goal of Universal Insurance Coverage for IVF?



Jacqueline Ho, M.D. (Chair)
University of Southern California
Sean Tipton, M.A.
ASRM
Barbara Collura, M.A.
RESOLVE

4:15 pm - 5:30 pm Symposium Management of Infertility in Low Resource Settings



Christopher Herndon, M.D. (Co-chair)
University of Washington
Julia V. Johnson, M.D. (Co-chair)
University of Massachusetts Medical School
Sheryl Vanderpoel, Ph.D.
Population Council, W.H.O. (retired)
Kevin J. Doody, M.D.
CARE Fertility
Melissa Harmon, R.N.
CARE Fertility

Tuesday, October 15

12:15 pm - 1:15 pm Roundtable Discussion Climate and Health Challenges in Vulnerable Populations



Rubin Alvero, M.D.
Stanford University

4:15 pm - 5:30 pm Symposium Access to Fertility Preservation Care: From Policy to the Patient



Akanksha Mehta, M.D., M.S. (Chair)
Emory University School of Medicine
H. Irene Su, M.D., M.S.C.E.
University of California
Joyce Reinecke, J.D.
Alliance for Fertility Preservation
Jim M. Dupree, IV, M.D., M.P.H.
University of Michigan

Wednesday, October 16

12:15 pm - 1:15 pm Roundtable Discussions

Time to Get Creative: How to Improve Access to Care in Your Community



Tia Jackson-Bey, M.D.
University of Illinois College of Medicine at Chicago

Abnormal Myometrial Stem Cells Are Responsible for Health Disparity in Uterine Fibroids



Qiwei Yang, Ph.D.
University of Illinois @ Chicago (UIC)



Assisted Reproductive Technology Lab Track

Monday, October 14

12:15 pm - 1:15 pm Roundtable Discussions

Understanding Mosaicism – What You Need to Know



Amy Jones, M.S.
Ovation Fertility

Overview on emerging technologies and breakthrough research in Assisted Reproductive Technology (ART)



Rebecca Krishner, Ph.D.
Colorado Center for Reproductive Medicine

Cryo Tank Failure: What Every REI & Embryologist Should Know



Dawn Kelk, Ph.D., H.C.L.D.
Yale Fertility Center

1:30 pm - 2:30 pm Interactive Session

CME

Key Performance Indicators for the IVF Lab

Amy Sparks, Ph.D. (Chair)
University of Iowa
Alison Bartolucci, M.S.
University of Connecticut
Dean Morbeck, Ph.D., M.B.A., H.C.L.D.
Fertility Associates, Auckland, NZ

Tuesday, October 15

12:15 pm - 1:15 pm Roundtable Discussions

Assisted Reproductive Technology (ART) laboratory networks/mergers: Do they improve outcome?



Jason Swain, Ph.D.
Colorado Center for Reproductive Medicine

TESE for Male Factor Infertility Patient Who Can Ejaculate (Oligozoospermia or Oligoasthenozoospermia or Oligoteratozoospermia): Where is the Evidence?



Jason Kavoc
Urology of IN

4:15 pm - 5:30 pm Symposium

CME

Quality Management in Human ART: Time to Revisit the Issues

Barry R. Behr, Ph.D. (Chair)
Stanford Fertility and Reproductive Medicine Center
Mitchel C. Schiewe, Ph.D., M.S.
Ovation Fertility
Dawn A. Kelk, Ph.D., H.C.L.D.
Yale Fertility Center

1:30 pm - 2:30 pm Interactive Session

CME

Mosaicism Exposed – How to Handle Mosaic Embryos

Timothy N. Hickman, M.D. (Chair)
Houston IVF
Mandy Katz-Jaffe, Ph.D.
Colorado Center for Reproductive Medicine
Mike Large, Ph.D.
Cooper Genomics
Cassandra Latoni, M.S., CGC



Assisted Reproductive Technology Lab Track

Wednesday, October 16

12:15 pm - 1:15 pm Roundtable Discussions

Clinical embryologist career paths – Excelling in the Multi-dimensional Role of a Clinical Embryologist



T. Arthur Chang, Ph.D., E.L.D., H.C.L.D.
University of Texas Health Science Center

What to Do When Euploid Embryos Fail to Implant?



John Whitney, B.S.
Ovation Fertility

Environmental Pollutants and their Effect on In Vitro Fertilization (IVF) Outcomes



Eva Schenkman, M.S.
Colorado Center for Reproductive Medicine

1:30 pm - 2:30 pm Interactive Session



Egg and Embryo Banking for Family Building Prior to Advancing Maternal Age: a Patient And Laboratory Perspective

Jennifer Mersereau, M.D. (Chair)
UNC Fertility
Kara N. Goldman, M.D.
Northwestern University
Sangita K. Jindal, Ph.D.
*Montefiore Institute for Reproductive Medicine and
Health*

3:45 pm - 5:00 pm Symposia

Howard and Georgeanna Jones Symposium on Assisted Reproductive Technology: Growing Gametes and Embryos: Where Are We Now



Rebecca Krisher, Ph.D. (Chair)
Colorado Center for Reproductive Medicine
Michelle Lane, Ph.D.
T. Arthur Chang, Ph.D., E.L.D., H.C.L.D.

Egg Freezing - Are You Ready for Prime Time? Developing and Implementing an Egg Freezing Program in Your Practice



Paul C. Lin, M.D. (Chair)
Seattle Reproductive Medicine
Caroline McCaffrey, Ph.D., H.C.L.D.
New York University Fertility Center
Tamara M. Tobias, N.P.
Seattle Reproductive Medicine
Kimball o. Pomeroy, Ph. D.
The World Egg Bank



Contraception Track

Monday, October 14

1:30 pm - 2:30 pm Interactive Session

CME

Best Practices in Miscarriage Management

Courtney Schreiber, M.D. (Chair)

University of Pennsylvania

Sarah Horvath, M.D.

University of Pennsylvania

Sarita Sonalkar, M.D., M.P.H.

University of Pennsylvania

Vanessa Dalton, M.D., M.P.H.

University of Michigan

Tuesday, October 15

12:15 pm - 1:15 pm Roundtable Discussion



Incorporating the Use of Mifepristone

Pretreatment for Medical Management of

Miscarriage into Your Practice

Sarita Sonalkar, M.D., M.P.H.

University of Pennsylvania

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Wednesday, October 16

2:45 pm - 3:30 pm Lecture

CME

Contraception Keynote Lecture: Male Contraception

John K. Amory, M.D., M.P.H.

University of Washington

1:30 pm - 2:30 pm Interactive Session

CME

Family Planning Fellows Showcase

Frontiers in Complex Family Planning

Maureen Baldwin, M.D., M.P.H.

Oregon Health and Science University

Andrea H. Roe, M.D., M.P.H.

University of Pennsylvania

Erica P. Cahill, M.D., M.S.

Stanford University

Nora Doty, M.D., M.C.R.

Hackensack Meridian Health



Ethics, Legal, & Mental Health Track

Monday, October 14

8:30 am - 9:15 am Plenary

CME

Plenary 1: President's Guest Lecture: Closing the Generational Gap Between Practitioners and Patients

Endowed by a 1987 grant from Ortho Women's Health
Ryan Jenkins

Speaker, Author, and Inc. Magazine Columnist

12:15 pm - 1:15 pm Roundtable Discussions

The Assisted Reproductive Technology (ART) of Couple Satisfaction



Kristy Koser, Ph.D., L.P.C.C.

Aporia Counseling and Psychotherapy, PLLC

Surrogacy and the Modern Family: Addressing the Ethical and Emotional Challenges of Complex Gestational Surrogacy Cases

CME

Lisa Schuman

The Center for Family Building

11:00 am - 12:00 pm MHPG Clinical Session MHPG Clinical Session (Research) Research Isn't Just for Nerds: The Easy How-To's of Conducting Publishable Research in the Field of Reproductive Medicine

Alice Domar, Ph.D.

Boston IVF

Lauri Pasch, Ph.D.

University of California, San Francisco

1:30 pm - 2:30 pm Interactive Session No Satisfaction: Psychological and Medical Perspectives on Infertility and Sexual Dysfunction

CME

William D. Petok, Ph.D. (Chair)

Thomas Jefferson University

Elizabeth A. Grill, Psy.D.

Weill Cornell Medical Center

Robert D. Oates, M.D.

Boston University School of Medicine

Kim Bergman, Ph.D.

Growing Generations

Counseling Patients on Mosaicism

CME

JoRene Bigler-Vollman, R.N., M.S.N. (Chair)

Fertility Centers of Illinois

Lisa A. Rinehart, J.D., R.N.

LegalCare Consulting, Inc.

Andria G. Besser, M.Sc.

New York University Langone Fertility Center

1:30 pm - 2:30 pm MHPG Clinical Session MHPG Clinical Session: The Trauma of Infertility and Pregnancy Loss: Helping Our Patients Heal

Janet Jaffe, Ph.D. (Chair)

Center for Reproductive Psychology

Karen Hall, Ph.D.

Private Practice

Julie Bindeman, Psy.D.

Private Practice

4:15 pm - 5:30 pm Symposia

ABOG - Kenneth Ryan Ethics Symposium: Ethics in Embryo Research: In Consideration of Patients, Progeny and Professional Norms

CME

Alto Charo, J.D. (Chair)

University of Wisconsin - Madison

Ben Hurlbut, Ph.D.

Arizona State University

Feng Zhang, Ph.D.

The Broad Institute

The New Modern Family: Family-building and co-parenting in polyamorous and multi-parent families.

CME

Linda Kondilis, Psy.D. (Chair)

Private Practice

Laurie McKenzie, M.D.

Baylor College of Medicine

Heather Ross, J.D.

Ross & Zuckerman, LLP

Tuesday, October 15

8:30 am - 9:15 am Plenary

CME

Plenary 4: Is Human Germline Editing Ethical?

Endowed by a 1990 grant from Astra-Zeneca

Françoise Baylis, C.M., O.N.S., Ph.D., F.R.S.C., F.C.A.H.S.

9:15 am - 10:00 am Plenary

CME

Plenary 6: Planned Oocyte Cryopreservation: A Patient's Perspective

Endowed by a 1992 grant from Wyeth

Brigitte K. Adams

Eggsurance

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Ethics, Legal, & Mental Health Track

12:15 pm - 1:15 pm Roundtable Discussions

Is Sharing really Caring? The Use of Self-Disclosure in Infertility Counseling.

Julie Bindeman, Psy.D.

Integrative Therapy of Greater Washington

CBT for Recurrent Pregnancy Loss: Benefits, Limitations, and Alternatives

Danielle Kaplan, Ph.D.

NYU Langone

1:30 pm - 2:30 pm Interactive Session CME Beyond Disclosure: The Psychological, Social, Legal, and Genetic Implications of Intentional and Unintentional Donor Identity

Claudia Pascale, Ph.D. (Chair)

Institute for Reproductive Medicine & Science

Judith Daar, J.D.

Chase College

Heidi Hayes, M.A.

California Cryobank

Neha Kumar, Sc.M.

Invitae

1:30 pm - 2:30 pm MHPG Clinical Session

MHPG Clinical Session---To SKYPE or not to SKYPE: Ethics of Third-party Teleconsultations in the Age of High-tech.

Lauren Magalnick Berman, Ph.D. (Chair)

Fertility Psychology Center of Atlanta

Lindsay Childress-Beatty, J.D., Ph.D.

American Psychological Association

4:15 pm - 5:30 pm Symposium CME

Implementation of an Embryo Donation Program Within Your Practice: Medical, Legal and Psychological Aspects

Eric Widra, M.D. (Chair)

Shady Grove Fertility Center

Angela K. Lawson, Ph.D.

Northwestern University

Nidhi Desai, J.D.

Desai & Miller

Wednesday, October 16

9:15 am - 10:00 am Plenary

Plenary 6: Herbert H. Thomas Lecture:

Justice and the Privatization of Health Data

Kayte Spector-Bagdady, J.D., M.Bioethics

University of Michigan

11:00 am - 12:00 pm MHPG Clinical Session MHPG Clinical Session: Peeking Under The Hood: Psychological Testing with Sperm Donors

Andrea Braverman, Ph.D. (Chair)

Jefferson OBGYN

John Kurtz, Ph.D.

Villanova University

12:15 pm - 1:15 pm Roundtable Discussions

Modeling Good Behavior- The Ethics of Surrogacy

Deborah Levy, M.A., L.P.C.

ConceiveAblities

Lessons from An Adoption Plan: Differences, Similarities in Disclosure to Donor-Conceived Offspring

Dori Kavanagh, L.C.S.W.

Private Practice

3:45 pm - 5:00 pm Symposia

Fertility Preservation for Transgender Youth: Special Considerations CME

Molly B Moravek, M.D., M.P.H. (Chair)

Michigan Medicine

James F. Smith, M.D.

University of California, San Francisco

Gwendolyn P. Quinn, Ph.D.

New York University

Leena Nahata, M.D.

Nationwide Children's Hospital

Risk Management: Patient Education, Compliance and Consenting. CME

Lindsey McBain, B.A. (Chair)

Reproductive Associates of New Jersey

Heather Ross, J.D.

Ross and Zuckerman

Brad Senstra, M.H.A.

Seattle Reproductive Medicine

Sue Jasulaitis, M.S.N., R.N.

Fertility Centers of Illinois



Genetics Track

Monday, October 14

12:15 pm - 1:15 pm Roundtable Discussions

Limits and Complications of Genetic Screening in Egg Donors

Amber Gamma, M.S., C.G.C.
Northwell Health Fertility



Progress in Comprehensive PGT

Dagan Wells, Ph.D., I.V.I., R.M.A. University of Oxford



PGT for Late-Onset Disorders

Svetlana Rechitsky, Ph.D.
Reproductive Genetic Innovations



Understanding Mosaicism – What You Need to Know

Amy Jones, M.S.
Ovation Fertility



1:30 pm - 2:30 pm Interactive Sessions

Non-invasive Preimplantation Genetic Testing (NIPGT): Is it Applicable for ART practice?

CME

Svetlana Rechitsky, Ph.D. (Chair)
Reproductive Genetic Innovations
Dagan Wells, Ph.D., I.V.I., R.M.A. University of Oxford
Carlos Rubio, Ph.D.
Igenomix

Counseling Patients on Mosaicism

CME

JoRene Bigler-Vollman, R.N., M.S.N. (Chair)
Lisa A. Rinehart, J.D., R.N.
LegalCare Consulting, Inc.
Andria G. Besser, M.S., C.G.C.
New York University Langone Fertility Center

Tuesday, October 15

8:30 am - 9:15 am Plenary

CME

Plenary 4: Is Human Germline Editing Ethical?

Endowed by a 1990 grant from Astra-Zeneca
Françoise Baylis, C.M., O.N.S., Ph.D., F.R.S.C., F.C.A.H.S.

12:15 pm - 1:15 pm Roundtable Discussions

Expanded Versus Targeted Genetic Testing Before Pregnancy: Discussion Of Guidelines, Options, and Cost Effectiveness

Heather Hipp, M.D.
Emory University



Direct to Consumer (DTC) Genetic Testing: Exploring The Benefits, Limitations And What To Do When A Patient Brings Results To The Clinic

Rachel Donnell, M.M.Sc., L.C.G.C.
Seattle Reproductive Medicine



Prospect for Non Invasive PGT

Carmen Rubio, Ph.D.
Igenomix Spain



Detection of Mosaicism and Segmental Variations

Mandy Katz-Jaffe
Colorado Center for Reproductive Medicine
in Lone Tree, CO



1:30 pm - 2:30 pm Interactive Sessions

Mosaicism Exposed – How to Handle Mosaic Embryos

CME

Timothy N. Hickman, M.D. (Chair)
Houston IVF
Mandy Katz-Jaffe, Ph.D.
Colorado Center for Reproductive Medicine
Mike Large, Ph.D.
Cooper Genomics
Cassandra Latoni, M.S., CGC
Ovation Fertility

Beyond Disclosure: The Psychological, Social, Legal, and Genetic Implications of Intentional and Unintentional Donor Identity

CME

Claudia Pascale, Ph.D. (Chair)
Institute for Reproductive Medicine & Science
Judith Daar, J.D.
Chase College
Heidi Hayes, M.A.
California Cryobank
Neha Kumar, Sc.M.
Invitae

Wednesday, October 16

12:15 pm - 1:15 pm Roundtable Discussions

PGT-M for Mild Conditions

Rachael Cabey, M.S., L.C.G.C.
CooperGenomics



Update of Randomized Control Trials on Clinical Outcome of PGT-A



Eric Forman, M.D.
Columbia University Fertility Center

Prospective Carrier Screening and its Impact of PGT Uptake



Charles Strom, M.D., Ph.D.
Celmatrix, USA




LGBTQ Track

Monday, October 14

12:15 pm - 1:15 pm Roundtable Discussion 
Not-So-Secret "Anonymous Egg Donations": How Home DNA Testing, Donor Registries, and Social Media Are Turning the Donor World Upside Down
 Will Halm, J.D.
International Reproductive Law Group

1:30 pm - 2:30 pm Interactive Session 
No Satisfaction: Psychological and Medical Perspectives on Infertility and Sexual Dysfunction
 William D. Petok, Ph.D. (Chair)
Thomas Jefferson University
 Elizabeth A. Grill, Psy.D.
Weill Cornell Medical Center
 Robert D. Oates, M.D.
Boston University School of Medicine
 Kim Bergman, Ph.D.
Growing Generations

4:15 pm - 5:30 pm Symposia
The New Modern Family: Family-building and co-parenting in the 21st Century 
 Linda Kondilis, Psy.D. (Chair)
Private Practice
 Laurie McKenzie, M.D.
Baylor College of Medicine
 Heather Ross, J.D.
Ross & Zuckerman, LLP

SSR Symposium: Fertility Preservation-Existing and Emerging Fertility Preservations Options for Women and Men 
 Mary B. Zelinski, Ph.D. (Chair)
Oregon Health & Sciences University
 So-Youn Kim, Ph.D.
University of Nebraska Medical Center
 Kyle E. Orwig, Ph.D.
University of Pittsburgh

Wednesday, October 16

12:15 pm - 1:15 pm Roundtable Discussion 
Ovarian Stimulation in Transgender Men
 Molly Moravek, M.D.
University of Michigan

3:45 pm - 5:00 pm Symposium 
Fertility Preservation for Transgender Youth: Special Considerations
 Molly B Moravek, M.D., M.P.H. (Chair)
Michigan Medicine
 James F. Smith, M.D.
University of California, San Francisco
 Gwendolyn P. Quinn, Ph.D.
New York University
 Leena Nahata, M.D.
Nationwide Children's Hospital



Male Reproduction Track

Monday, October 14

12:15 pm - 1:15 pm Roundtable Discussions

The Current Role of Varicocele Repair in Optimizing Male Fertility And Assisted Reproductive Technology (ART) Outcomes

Ed Kim, M.D.
University of Tennessee

Optimizing Male Fertility Utilizing Life Style Modifications

Michael Eisenberg, M.D.
Stanford University

2:35 pm - 3:20 pm Lecture

The David and Rosemary Adamson Lecture on Excellence in Reproductive Medicine: Midnight's Broken Toll: Male Fertility and the Health of Future Generations

Endowed by Advanced Reproductive Care, Inc. and Rosemary and David Adamson, M.D.
R. John Aitken, Ph.D., Sc.D., F.R.S.E., F.R.S.N., F.A.H.M.S., F.A.A.
University of Newcastle

4:15 pm - 5:30 pm Symposium

Are Specialized Sperm Function Tests Clinically Useful?

Armand Zini, M.D., F.R.C.S.C. (Chair)
McGill University
Sandro Esteves, M.D., Ph.D., M.Sc.
Campinas, Brazil
Douglas T. Carrell, Ph.D.
University of Utah School of Medicine

CME

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Tuesday, October 15

12:15 pm - 1:15 pm Roundtable Discussions

Hypogonadism: Implications of Disease and Treatment for the Infertile Male

Mohit Khera, M.D.
Baylor College of Medicine

Patient-Centered Approach to Azoospermia: Choosing the Best Technique for Sperm Retrieval

Thomas Walsh, M.D.
Washington University

1:30 pm - 2:30 pm Interactive Session

Home Sperm Testing: What is Available, Limitations and Opportunities

Natan Bar-Chama, M.D. (Chair)
Reproductive Associates of New York
Michael Eisenberg, M.D.
Stanford University
Benjamin Leader, M.D., Ph.D.
ReproSource Inc.

4:15 pm - 5:30 pm Symposium

Access to Fertility Preservation Care: From Policy to the Patient

Akanksha Mehta, M.D., M.S. (Chair)
Emory University School of Medicine
H. Irene Su, M.D., M.S.C.E.
University of California
Joyce Reinecke, J.D.
Alliance for Fertility Preservation
Jim M. Dupree, IV, M.D., M.P.H.
University of Michigan

CME



Male Reproduction Track

Wednesday, October 16

8:00 am - 8:45 am Lecture

CME

American Urological Association Bruce Stewart Memorial Lecture: The Diagnosis & Treatment of Male Infertility: From the Bench to the Bedside

Supported by a grant from the American Urological Association

Larry Lipshultz, M.D.

Baylor College of Medicine

12:15 pm - 1:15 pm Expert Encounter



Male Infertility Case Discussion

John Amory, M.D., M.P.H.

University of Washington

12:15 pm - 1:15 pm Roundtable Discussions

Male Home Fertility Testing: Pros and Cons for the Consumer and Medical Practitioner



Natan Bar-Chama, M.D.

Reproductive Medicine Associates of New York

The Future of Male Infertility Microsurgery: Promising Emerging Technologies



Philip Li, M.D.

Cornell University

Fertility Preservation in the Male Across the Lifespan



Robert Brannigan, M.D.

Northwestern University

2:45 pm - 3:30 pm Lecture

CME

Contraception Keynote Lecture: Male Contraception

John K. Amory, M.D., M.P.H.

University of Washington

2:45 pm - 3:30 pm Lecture

CME

SSR Exchange Keynote Lecture: Motile Ciliopathy is a New Cause of Male Infertility

Wei Yan, M.D., Ph.D.


University of Nevada


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Menopause Track

Monday, October 14


12:15 pm - 1:15 pm Roundtable Discussion 
Stem Cell Therapy for Premature Ovarian Insufficiency
 Ayman al-Hendy, M.D., Ph.D.
University of Illinois at Chicago

4:15 pm - 5:30 pm Symposium 
Ovarian Tissue Cryopreservation and Transplantation: 20 Years of Progress
 Kutluk H. Oktay, M.D., Ph.D. (Chair)
Yale University School of Medicine
 Isabelle Demeestere, M.D., Ph.D.
University Libre de Bruxelles
 Nao Suzuki, M.D., Ph.D.
Marianna University

Tuesday, October 15

12:15 pm - 1:15 pm Roundtable Discussion 
Is there a role for testosterone use in women?
 Jan Shifren, M.D.
Massachusetts General Hospital

2:45 pm - 3:30 pm Lecture 
Menopause Keynote Lecture: Future Directions on the Management of Menopause
 Rogerio A. Lobo, M.D.
Columbia University

1:30 pm - 2:30 pm Interactive Session 
In Vitro Activation for Primary Ovarian Insufficiency: Is it Ready for Prime Time?
 Mindy S. Christianson, M.D. (Chair)
Johns Hopkins University
 James H. Segars, Jr., M.D., F.A.C.O.G.
Johns Hopkins University
 Cesar Diaz-Garcia, M.D., M.P.H.
IVI London

Wednesday, October 16

12:15 pm - 1:15 pm Roundtable Discussion 
Ovarian Stimulation in Transgender Men
 Molly Moravek, M.D.
University of Michigan



Professional and Practice Development Track

Sunday, October 7

3:00 pm - 5:00 pm Workshop Personal Finance for Physicians

Stuart S. Howards, M.D.
University of Virginia



Monday, October 8

8:30 am - 9:15 am Plenary

CME

Plenary 1: President's Guest Lecture: Closing the Generational Gap Between Practitioners and Patients

Endowed by a 1987 grant from Ortho Women's Health
Ryan Jenkins
Speaker, Author, and Inc. Magazine Columnist

12:15 pm - 1:15 pm Expert Encounter



Venture Capital, Private Equity, and Assisted Reproduction: Investing in Innovation in IVF

David Sable, M.D.
Columbia University

12:15 pm - 1:15 pm Roundtable Discussions

Staying Together for the Kids: Clear Expectations that Partners and Associates Need to Agree Upon in Order to Grow the Practice and Avoid Separation

Griffin Jones, B.A.
Fertility Bridge

Managing Patient Complaints And Setting Expectations

Beth Hume, B.A.
Seattle Reproductive Medicine



1:30 pm - 2:30 pm Interactive Session Moving Hysteroscopy from the Operating Room to the Office: Essentials for Success, Safety, and Patient Satisfaction

Steven R. Lindheim, M.D. (Chair)
Wright State University
Stefano Bettocchi, M.D.
University of Bari
Keith Isaacson, M.D.
Harvard Medical School
Brad Senstra, M.H.A.
Seattle Reproductive Medicine

CME

2:35 pm - 3:20 pm Lecture Endowed Lecture: IVF as a Business

Endowed by a 1990 grant from TAP Pharmaceutical
David Sable, M.D.
Columbia University

CME

4:15 pm - 5:30 pm Symposium How to Build High Functioning Teams in the Embryology Lab

Blake R. Welch, M.B.A. (Chair)
Chicago IVF
David Ball, Ph.D.
Seattle Reproductive Medicine

CME

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Professional and Practice Development Track

Tuesday, October 15

9:15 am - 10:00 am Plenary CME

Plenary 5: Planned Oocyte Cryopreservation: A Patient's Perspective

Endowed by a 1992 grant from Wyeth
Brigitte K. Adams
Eggsurance

12:15 pm - 1:15 pm Roundtable Discussion CME

HIPPA Headaches and Ways to Avoid Them

Lindsey McBain, B.A.
Reproductive Management Associates of New Jersey

4:15 pm - 5:30 pm Symposia

RESPECT YOUR ENEMY: Marketing Your Practice Within The Sirt Advertising Guidelines In A Competitive Market CME

Sara Mooney, B.A. (Chair)
Seattle Reproductive Medicine
Eli Reshef, M.D.
Henry G. Bennett Jr. Fertility Institute
Amy Hall, R.Ph.
Catalyst Healthcare Marketing
Paul C. Lin, M.D.
Seattle Reproductive Medicine

Quality Management in Human ART: CME

Time to Revisit the Issues

Barry R. Behr, Ph.D. (Chair)
Stanford Fertility and Reproductive Medicine Center
Mitchel C. Schiewe, Ph.D., M.S.
Ovation Fertility
Dawn A. Kelk, Ph.D., H.C.L.D.
Yale Fertility Center

Implementation of an Embryo Donation Program Within Your Practice: Medical, Legal and Psychological Aspects CME

Eric Widra, M.D. (Chair)
Shady Grove Fertility Center
Angela K. Lawson, Ph.D.
Northwestern University
Nidhi Desai, J.D.
Desai & Miller

Wednesday, October 16

9:15 am - 10:00 am Plenary CME

Plenary 6: Herbert H. Thomas Lecture: Justice and the Privatization of Health Data

Endowed by a 1992 grant from EMD Serono, Inc.
Kayte Spector-Bagdady, J.D., M.Bioethics
University of Michigan

12:15 pm - 1:15 pm Roundtable Discussion CME

Embryo Disposition and Divorce

Jessica Medvedich, M.B.A., B.S.N., R.N.
Reproductive Management Associates of New Jersey

1:30 pm - 2:30 pm Interactive Session CME

Egg and Embryo Banking for Family Building Prior to Advancing Maternal Age: a Patient and Laboratory Perspective

Jennifer Mersereau, M.D. (Chair)
UNC Fertility
Kara N. Goldman, M.D.
Northwestern University
Sangita K. Jindal, Ph.D.
Montefiore Institute for Reproductive Medicine and Health

3:45 pm - 5:00 pm Symposia CME

Risk Management: Patient Education, Compliance and Consenting.

Lindsey McBain, B.A. (Chair)
Reproductive Associates of New Jersey
Heather Ross, J.D.
Ross and Zuckerman
Brad Senstra, M.H.A.
Seattle Reproductive Medicine
Sue Jasulaitis, M.S.N., R.N.
Fertility Centers of Illinois

Egg Freezing - Are You Ready For Prime Time? Developing and Implementing an Egg Freezing Program In Your Practice CME

Paul C. Lin, M.D. (Chair)
Seattle Reproductive Medicine
Caroline McCaffrey, Ph.D., H.C.L.D.
New York University Fertility Center
Tamara M. Tobias, N.P.
Seattle Reproductive Medicine
Kimball O. Pomeroy, Ph.D.
The World Egg Bank

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2019 Resident Education Program

Purpose

ASRM is committed to facilitating and promoting education of reproductive health professionals at all levels. As part of this mission, the Society develops and coordinates educational activities for resident physicians in training in reproductive medicine. The program emphasizes the understanding of complex topics, the interaction with other disciplines, and the psychosocial sequelae and ethical concerns in human reproduction. Residents will also be exposed to a variety of interactive educational methods and have an opportunity to network/interaction with faculty with expertise in the specific topic for the day.

Description

ASRM has organized an education program consisting of two parts:

1. Medical Education: A series of educational sessions coupled with corresponding scientific symposia. On two days of the Scientific Congress, there will be interactive educational presentations corresponding to a symposium on each of those days. The activities will be evidence-based, free from bias, and independent of commercial influence. The discussions, which will utilize different learning pedagogies, will require advance independent study of articles, videos, or handouts relevant to the topic of ~20 minutes. Fifteen minutes are reserved at the end of these sessions for interaction with fellows who are also attending the sessions.
2. Networking/Interaction with Fellows: Fellows will attend the educational sessions as peer faculty. Learners are encouraged to ask questions about the fellowship interview process and the panelists' experiences.

Procedure

1. Residents will register online for the program during their regular registration process by checking YES on the invitation that will appear for all registrants who designate "resident" as their practice code. There is no charge for participation.
2. Registrants will receive an email 2 weeks in advance of the Scientific Congress with a link to materials to prepare for the learning sessions and symposia.
3. A boxed lunch is provided for learners Monday through Wednesday at the lunchtime learning sessions.
4. On Monday and Tuesday of the Scientific Congress, registrants will gather for an interactive learning session with a prominent medical educator and content expert(s) from the day's corresponding symposium or plenary. Each day will employ an interactive learning modality that will require a small amount of advance preparation. Those sessions will include an opportunity to interact with current fellows throughout the session. Registrants are encouraged to attend the symposium or plenary corresponding to the day's learning session.
5. On Wednesday, the session will be comprised of interactive learning sessions on various topics and panel discussion with current fellows and fellowship directors.
6. After the Congress, registrants will receive a survey.

Monday, October 14, 2019

12:30 pm – 2:00 pm Resident Learning Session: Team-based Learning

8:30 am – 9:15 am (on Plenary: Is Human Germline Editing Ethical? Tuesday, Oct 15)
Content experts: Ben Hurlbut, Ph.D.
Education faculty: Ranjith Ramasamy, M.D.

Tuesday, October 15, 2019

12:30 pm – 2:00 pm Resident Learning Session: Case Discussions

4:15 pm – 5:30 pm Symposium: Patient-Centered Research in Uterine Fibroids: The COMPARE-UF Experience
Content expert: Elizabeth Stewart, M.D.
Education faculty: Divya Shah, M.D., M.Ed.

Wednesday, October 16, 2019

12:30 pm – 2:00 pm Resident Learning Session: Interactive Learning Pedagogies and Fellowship Panel Discussion Activity: Panel discussion with current fellows and fellowship directors and participation in various interactive learning pedagogies
Faculty: Ann Davis, M.D.

*Brought to you by the ASRM Education Committee, Professor Ann J Davis, MD, Chair – **BOXED LUNCH provided**



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INVITED SPEAKER DISCLOSURES INDEX

All speakers at the 2019 ASRM Scientific Congress were required to complete a disclosure form.

Each speaker listed below disclosed a relationship pertaining to themselves or their partner/spouse.

¹Company Officer ²Direct Stockholder ³Full-Time Company Employee ⁴Grant Recipient ⁵Honoraria
⁶Paid Consultant ⁷Speaker's Bureau ⁸Other ^aPartner/Spouse ^bBoth

Aboulghar, M. A.	Ferring ⁸ (travel expenses to attend conference covered by the company); IBSA ⁸ (travel expenses to attend conference covered by the company)
Aitken, R. J.	Celloxess ⁸ (Honorary Scientific Advisor); Memphasys ^{2,6}
Alukal, J. P.	Ezra ⁶ ; Phosphorus ⁶ ; Sandstone ⁶
Amory, J. K.	Clarus Therapeutics ⁶
Awwad, J.	Merck Serono ⁵ ; Rovi Pharmaceutical ⁴
Baldwin, M.	Medicines 360 ⁸ (Research Co-I)
Ball, G. D.	Serono EMD ⁶
Barnhart, K. T.	AbbVie ⁶ ; Bayer ⁶
Bartolucci, A.	Cooper Genomics ⁵ ; Cooper Surgical ⁵
Behr, B. R.	DX Now ⁸ (Consultant)
Bendikson, K.	theralogix ⁸ (medical advisory board)
Bergman, K.	Growing Generations ¹
Bhagavath, B.	Hologic Inc ^{4,8} (Scientific advisory board)
Braverman, A. M.	California Cryobank ⁶ ; Merck ⁷
Brezina, P. R.	Advagenix ^{1,2} ; Fertility Associates of Memphis ^{1,2,3}
Busso, N.	ABBOTT Laboratorios do Brasil Ltda. ⁷
Callum, P.	California Cryobank ³ ; Tandem Genetics ¹
Catherino, W.	Abbvie ⁶ ; Allergan ⁶ ; American Board of Obstetrics and Gynecology ⁵ ; American Society for Reproductive Medicine ⁵ ; Bayer ⁶ ; EMD Serono ^{3a}
Chapron, C.	AbbVie ⁶ ; Bayer ⁶ ; Ipsen ⁶
Cram, D.	Berry Genomics ¹
Crockin, S.	Amgen ^{6a} ; AstraZeneca ^{6a} ; BMS ^{6a,8a} (Advisory Board); Boehringer-Ingelheim ^{6a} ; Eisai ^{6a} ; exelixis ^{6a} ; Genentech-Roche ^{6a} ; Merck ^{6a,8a} (Advisory Board); Novartis ^{6a,8a} (Advisory Board); Pfizer ^{8a} (Advisory Board); Werewolf ^{8a} (Stock options); BMS ^{8a} (Advisory Board); Eisai ^{6a} ; ImmunoCore ^{6a} ; Pfizer ^{6a,8a} (Advisory Board)
Dalton, V.	Bayer ⁸ (expert witness)
Diaz-Garcia, C.	Ferring ⁷
Dokras, A.	Abbvie ⁶ ; Ferring ⁶ ; Medtronic ⁶
Domar, A. D.	Abbott ⁵ ; Aliz Health Apps ¹ ; EMD Serono ⁵ ; Ferring ^{4,6} ; FertiCalm LLC ¹ ; FertiStrong LLC ¹ ; Merck ⁷
Doody, K. J.	Ferring Pharmaceuticals ^{6,7} ; INVO Bioscience ^{1,2}



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Dupree, J. M.	Blue Cross Blue Shield of Michigan ⁴ ; Lipocine ²
Eisenberg, M. L.	Dadi ² ; Gilead ⁶ ; Roman ² ; Sandstone Diagnostics ² ; Underdog ²
Estes, S. J.	Abbvie ^{6,7,8} (research support); Obseva ⁸ (research support)
Esteves, S. C.	Gedeon-Richter ⁷ ; Merck ⁷
Feng, H.	NEW YORK EGG BANK ¹ ; REPROBIOTECH CORP ¹ ; RUIBAI MEDICAL USA ¹
Fernandez, E. F.	IMH ²
Forman, E. J.	Ferring Pharmaceuticals ⁷
Giudice, L. C.	Celmatix ⁶ ; ForEndo Pharmaceuticals ⁶ ; Merck ^{2b} ; Myovant Biosciences ⁶ ; NextGen Jane ⁶ ; Pfizer ^{2b}
Grill, E. A.	Aliz LLC ⁸ (Co owner); Donor Egg Meeting ⁵ ; FertiCalm ⁸ (Co owner); FertiStrong ⁸ (Co owner); Merck ⁷
Guoning, H.	Chongqing Genetic and Reproductive Institute ^{3b}
Hayes, H.	Donor Egg Bank USA ³
Hickman, C.	Apricity ¹ ; Cooper surgical, Apricity, Hamilton Thorne, vitrolife, Ferring, Merck Serono, TMRW, Attieh Medical, Parallabs, Cook, Spectrun, Salveapp ^{5,6,7,8} (Advisory Board); TMRW ⁸ (Advisor)
Hill, M. J.	Ohana Biosciences ⁸ (Research Advisor)
Isaacson, K.	Karl Storz ⁶ ; Medtronics ⁶
Jasulaitis, S.	EMD Serono ⁷
Jukic, A.	Theralogix ⁸ (Vitamin D supplements from this company were donated for a clinical trial of which I am PI.)
Kim, E.	Endo ⁷
Kurtz, J. E.	Fairfax Cryobank ⁶
Kyrillos, J. V.	Novo Nordisk ⁷
Lamb, D. J.	2019 5th PuJiang Reproductive Medicine Forum ⁸ (Travel costs); Celmatix ⁸ (Scientific Advisory Board- No financial compensation); Ferring ⁵ ; Hanzhou first hospital of Zhejiang University ⁸ (Travel Costs); Shanghai General Hospital and Shanghai Andrology Society ^{5,8} (Travel costs); Suzhou University IVF and fertility center ⁸ (Travel costs)
Lane, M.	Monash IVF Group ^{2,3} ; Vitrolife ⁸ (Have commercialised IP for Vitrification devices.)
Large, M.	CooperSurgical ^{2,3}
Laven, J. S.	Danone ⁶ ; Euroscreen ⁶ ; Ferring ^{4,6} ; Merck Serono ⁴
Legro, R. S.	AbbVie ⁶ ; Bayer ⁶ ; Ferring ⁶ ; Fractyl ⁶ ; Guerbet ⁴
Lindheim, S.	Crossbay ²
Lipshultz, L. I.	AbbVie ⁶ ; American Medical Systems ⁷ ; Aytu Bioscience ⁶ ; Endo Pharmaceuticals ^{6,7} ; Lipocine ⁶
Liu, J. H.	AbbVie ⁸ (Clinical Trial); Allergan ^{6,8} (Clinical Trial); AMAG ⁶ ; Astella ⁸ (Clinical Trial); Bayer ⁸ (Data Safety Monitoring Board Chair); Femasys ⁸ (Clinical Trials); Ferring ⁶ ; Mitsubishi-Tanabe ⁶ ; Therapeutics MD ⁶
Markert, U. R.	Gedeon Richter ⁴
McQueen, D. B.	Innovative Drive Corporation ^{6a}



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Merhi, Z.	HOCATT LLC ⁶
Miller, C. E.	AbbVie ^{4,7} ; Allergen ⁴ ; Blue Seas Med Spa, Naperville, IL ⁸ (<i>Ownership interest</i>); Espiner Medical ^{4,6} ; Gynesonics ^{2,4,6} ; Halt Medical, Inc. ² ; Karl Storz ⁴ ; Medtronic ⁶ ; Pacira Pharmaceuticals ⁶ ; Richard Wolf ⁶ ; Thomas Medical/Catheter Research, Inc. ⁸ (<i>Royalties</i>)
Missmer, S. A.	AbbVie ^{4,8} (<i>Advisory Board Member</i>); Department of Defense ⁴ ; Endometriosis Foundation of America ⁴ ; Marriott Family Foundations ⁴ ; National Institutes of Health ⁴
Moravek, M. B.	Arthrex ^{6a} ; Probility Physical Therapy ^{6a} ; Team Rehab Physical Therapy ^{6a}
Morbeck, D.	CooperSurgical ^{6,7} ; Fertility Associates ^{2,3} ; Irvine Scientific ⁶
Morton, J. M.	Novo nordisk ⁵
Myers, E.	AbbVie ⁵ ; Allergan ⁵ ; Bayer ⁵ ; Merck ⁶
Nahata, L.	Antares ⁶
O'Brien, J. E.	Ohana ⁵
Omurtag, K.	Medical Electronic Systems ⁶ ; Nestle ⁶
Paduch, D. A.	Consulting Research Services INC ^{1,2}
Parry, P.	Parryscope Fertility ^{8b} (<i>Intellectual property rights relating to a surgical technique and device</i>)
Patrizio, P.	FertileSafe ⁸ (<i>co-founder and consultant</i>)
Petrozza, J. C.	Boston Scientific ⁶
Pfeifer, S.	Abbvie Pharmaceuticals ^{6a} ; Merck & Company ^{6a} ; Theralogix ^{6a}
Pomeroy, K. O.	The World Egg Bank ³
Pool, T.	Innovative Cryo Enterprises ⁸ (<i>Scientific Advisory Board</i>)
Ramasamy, R.	Aytu Biosciences ^{4,6} ; Boston Scientific ^{4,6} ; Coloplast ^{4,6} ; Direx ⁴ ; ENDO Pharmaceuticals ^{4,6}
Rechitsky, S.	Reproductive Genetic Innovations ^{1,3}
Rizk, B.	Abbvie ^{4,5,7} ; Fairhavenhealth ⁶ ; Hologic ^{5,7}
Ross, H. E.	Accelerate Diagnostics ^{2b}
Rubio, C.	Igenomix ³
Sable, D.	Celmatix ^{2,8} (<i>Board of Directors</i>); Hamilton Thorne ^{2,8} (<i>Board of Directors</i>); MedAnswers ² ; Oova ² ; Progyny ⁸ (<i>Advisory board member</i>); TMRW ^{2,8} (<i>Board of Directors observer</i>)
Santoro, N.	Astellas/Ogeda ⁸ (<i>Scientific Advisory Board</i>); Menogenix, Inc. ⁸ (<i>Scientific Advisory Board, Stock options</i>)
Satava, R. M.	Advent Health ⁶ ; In Touch Technologies, Inc ² ; Lumineu, LLC ¹ ; Medicaroid, Inc ⁶ ; Patient Innovations, Inc ⁸ (<i>Board of Advisors</i>); Society of Laproendoscopic Sureons ⁸ (<i>Advisory Board</i>)
Sgarlata, C. S.	ConnectWell ^{8b} (<i>Scientific Advisory Board- non-paid position</i>)
Shapiro, B.	Ovation ²
Sharara, F. I.	Ferring Pharmaceuticals ⁷ ; Innovus Pharmaceuticals ² ; MAP Sciences ¹
Simon, C.	Ferring ⁶ ; Igenomix ^{2,8} (<i>Head of the Scientific Advisory Board</i>); Merck ⁶ ; TEVA ⁶



DISCLOSURES INDEX

SMITH, J. F.	Mojo inc. ²
Spitz, A.	Abbvie ⁷ ; Endo Pharmaceuticals ^{7,8} (<i>spokesperson for men's health</i>); Meteuchen Pharmaceuticals ⁷
Stewart, E. A.	Bayer ⁶ ; Myovant ⁸ (<i>Steering Committee Member with remuneration</i>); Peer View ⁵ ; UpTo Date ⁵
Tapanainen, J. S.	Fertia Ltd ²
Taylor, H. S.	Abbvie ⁵ ; Dot ⁸ (<i>Unpaid consultant</i>); Onseva ⁵
Tobias, T.	EMD Serono ⁷
Vanderpoel, S.	Carrot Fertility ⁸ (<i>Reimbursement for travel costs to consult</i>); World Health Organization ⁸ (<i>Reimbursement for travel costs to consult</i>)
Venable, S.	AbbVie ⁴ ; Bayer ⁸ (<i>Speaking. Travel.</i>); Myovant ⁴
Vincent, K.	AbbVie ⁶ ; Bayer AG ⁴ ; Eli Lilly ⁷
Walsh, T. J.	Boston Scientific ^{4,6}
Wells, D.	IVI-RMA ³
Wild, R. A.	Amgen ⁶ ; NICHD ⁴
Wood, J. M.	EMD Serono ⁷
Young, S. L.	Abbvie Pharmaceuticals ⁶ ; Ferring Pharmaceuticals ^{4,6}
Zhang, F.	Arbor Biosciences ² ; Beam Therapeutics ^{2,6} ; Editas Medicine ^{2,6} ; Pairwise Plants ^{2,6} ; Sherlock Biosciences ^{2,6}
Zini, A.	YAD Tech ²



Non-CME Educational Sessions

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ROUNDTABLE DISCUSSIONS

MONDAY, OCTOBER 14, 2019

Access to Care

RTM1

Disparities in Male Reproductive Health

Jim Dupree, M.D., M.P.H.

University of Michigan

Androgen Excess

RTM2

AMH in the Diagnosis of Polycystic Ovary Syndrome (PCOS)-New Aspects in Development and Diagnosis

Joop Laven, M.D., Ph.D.

Erasmus University

Assisted Reproductive Technology

RTM3

Current Limitations of Semen Analysis

Sergio Oehninger, M.D., Ph.D.

Sher Institute

Assisted Reproductive Technology

RTM4

REIs and Legislative Advocacy: Choosing your issues, finding your voice

Amanda Kallen, M.D.

Yale University

Assisted Reproductive Technology

RTM5

Conducting Research with SART Data - Setting the Stage for Success

Sangita Jindal, Ph.D.

Einstein COM, Montefiore

Chinese Reproductive Medicine

RTM6

Human Oocytes and Embryo Selections

Ping Xia, M.D., Ph.D.

Johns Hopkins School of Medicine

Early Pregnancy

RTM7

Fibroids and Other Structural Abnormalities and Pregnancy Loss: The Latest Data and Recommendations

Jennifer Mersereau, M.D.

University of North Carolina at Chapel Hill

Endometriosis

RTM8

Nutritional Supplementation for Women with Endometriosis - What We Know and What We Don't.

James Nodler, M.D.

Houston In Vitro Fertilization (IVF)

Environment and Reproduction

RTM9

Endocrine Disrupting Chemicals and Fertility: An Update

Carmen Messerlian, Ph.D.

Harvard T.H. Chan School of Public Health

Fertility Preservation

RTM10

Fertility Preservation for Men with Benign and Malignant Conditions

Akanksha Mehta, M.D., M.S.

Emory University

Fibroids

RTM11

Health Disparities and Uterine Fibroids

Erica Marsh, M.D.

University of Michigan

Genetic Counseling

RTM12

Limits and Complications of Genetic Screening in Egg Donors

Amber Gamma, M.S., C.G.C.

Northwell Health Fertility

Imaging in Reproductive Medicine

RTM13

Utilization and Value of Testicular Sonogram in Evaluation of Infertility

Richard Levin, M.D.

Urodocs

Indian Reproductive Medicine

RTM14

Fertility Preservation in Cancer Patients

Madhuri Patil, M.D.

Clinical Director of Dr. Patil's Fertility & Endoscopy Clinic, Bangalore



ROUNDTABLE DISCUSSIONS

MONDAY, OCTOBER 14, 2019

Legal

RTM15

Legal and Ethical Considerations When Representing the "Non-Traditional" Family

Deborah Guston, J.D.
Guston & Guston, L.L.P.

RTM16

Insurance Concerns in Fertility Arrangements

Amani Hassoun, J.D.
Vorzimer Masserman

LGBTQ

RTM17

Not-So-Secret "Anonymous Egg Donations": How Home DNA Testing, Donor Registries, and Social Media Are Turning the Donor World Upside Down

Will Halm, J.D.
International Reproductive Law Group

Male Reproduction and Urology

RTM18

The Current Role of Varicocele Repair in Optimizing Male Fertility and Assisted Reproductive Technology (ART) Outcomes

Ed Kim, M.D.
University of Tennessee

RTM19

Optimizing Male Fertility Utilizing Life Style Modifications

Michael Eisenberg, M.D.
Stanford University

Mental Health

RTM20

The Assisted Reproductive Technology (ART) of Couple Satisfaction

Kristy Koser, Ph.D., L.P.C.C.
Aporia Counseling and Psychotherapy, PLLC

RTM21

Surrogacy and the Modern Family: Addressing the Ethical and Emotional Challenges of Complex Gestational Surrogacy Cases

Lisa Schuman, L.C.S.W.
The Center for Family Building

Nurses

RTM22

Calling All Donor Nurse Coordinators: Communication and Education of Disclosure Strategies in the Era of 23andMe

Patricia Hershberger, Ph.D., R.N., F.N.P.
UIC College of Nursing

RTM23

How is Your Advanced Practice Provider Best Utilized?

Hayley Eichlin, D.N.P., A.P.R.N., W.H.N.P.-B.C.
Reproductive Medical Associates of New Jersey

Nutrition

RTM24

Weighing the Evidence on Vitamin D and Reproduction

Anne Marie Jukic, Ph.D.
National Institute of Environmental Health Sciences

Preimplantation Genetic Testing

RTM25

Progress in Comprehensive PGT

Dagan Wells, Ph.D., I.V.I., R.M.A.
University of Oxford

RTM26

PGT for Late-Onset Disorders

Svetlana Rechitsky, Ph.D.
Reproductive Genetic Innovations

Regenerative Medicine and Stem Cell Biology

RTM27

Stem Cell Therapy for Premature Ovarian Insufficiency

Ayman al-Hendy, M.D., Ph.D.
University of Illinois at Chicago



ROUNDTABLE DISCUSSIONS

MONDAY, OCTOBER 14, 2019

Reproductive Biology and Technology

RTM28

Understanding Mosaicism – What You Need to Know

Amy Jones, M.S.

Ovation Fertility

RTM29

Overview on Emerging Technologies and Breakthrough Research in Assisted Reproductive Technology (ART)

Rebecca Krisher, Ph.D.

Colorado Center for Reproductive Medicine

RTM30

Cryo Tank Failure: What Every REI & Embryologist Should Know

Dawn Kelk, Ph.D., H.C.L.D.

Yale Fertility Center

Reproductive Endocrinology and Infertility

RTM31

Opening Your Door to Same Sex Male Couples and a Process for Your Practice

Mark Leondires, M.D.

Reproductive Medicine Associates of Connecticut

RTM32

Cultivating the Use of Social Media in Your Practice

Kenan Omurtag, M.D.

Washington University School of Medicine

RTM33

Optimal management of Recurrent Pregnancy Loss

Lia Bernardi, M.D.

Northwestern University

Reproductive Managers

RTM34

Staying Together for the Kids: Clear Expectations that Partners and Associates Need to Agree Upon in Order to Grow the Practice and Avoid Separation

Griffin Jones, B.A.

Fertility Bridge

RTM35

Managing Patient Complaints and Setting Expectations

Beth Hume, B.A.

Seattle Reproductive Medicine

Reproductive Surgery

RTM36

Intrauterine Adhesion Prevention – a Global and Scientific Perspective

Joe Findley, M.D.

University of Vermont

RTM37

Laparoscopic Tissue Extraction Techniques – Pearls to Maximize Success

Zaraq Khan, M.D.

Mayo Clinic

RTM38

Hysteroscopy Fibroid Resection: Pearls for Challenging Cases

Pres Parry, M.D.

University of Mississippi

Spanish Reproductive Medicine

RTM39

Estados Asociados Que Modifican El Éxito De Implantación

Marcelino Valencia Hernandez, M.D.

AMMR

Turkish Reproductive Medicine

RTM40

Current State and Individualized Success Rates of Oocyte Cryopreservation

Aylin Cil, M.D.

American Hospital - Istanbul, Turkey



ROUNDTABLE DISCUSSIONS

TUESDAY, OCTOBER 15, 2019

Androgen Excess

RTT1

Weight Gain and Ovulation Induction in Polycystic Ovary Syndrome (PCOS)

Wendy Vitek, M.D.
University of Rochester

Assisted Reproductive Technology

RTT2

National Trends in In Vitro Fertilization (IVF) Practice, Lessons From the SART Database

Jennifer Kawwass, M.D.
Emory University

RTT3

Expanded Versus Targeted Genetic Testing Before Pregnancy: Discussion of Guidelines, Options, and Cost Effectiveness

Heather Hipp, M.D.
Emory University

RTT4

An Update on Immunomodulatory treatment in Reproductive Medicine and Early Pregnancy

Abey Eapen, M.B.B.S., Ph.D., D.R.C.O.G.
University of Iowa

Complimentary and Integrative Medicine

RTT5

The Pros and Cons of In House Integrative Medicine & What's Best for Your Clinic

Steven Mavros, L.O.M., M.A.D.M.
Healing Arts Center of Philadelphia

Contraception

RTT6

Incorporating the Use of Mifepristone Pretreatment for Medical Management of Miscarriage Into Your Practice

Sarita Sonalkar, M.D., M.P.H.
University of Pennsylvania

Early Pregnancy

RTT7

Obesity and Pregnancy Loss

Christina Boots, M.D., M.S.C.I.
Northwestern University

Educational Modalities

RTT8

Educational Strategies for an Effective Journal Club

Ranjith Ramasamy, M.D.
University of Miami

Endometriosis

RTT9

Are Most In Vitro Fertilization (IVF) Failures Due to Undiagnosed Endometriosis?

Bruce Lessey, M.D.
Wake Forest School of Medicine

Environment and Reproduction

RTT10

Air Pollution and Human Fertility: What is the Evidence and what can your patients do?

Audrey Gaskins, Sc.D.
Emory University

Fertility Preservation

RTT11

Fertility Preservation for the Transgender Patient

Evelyn Mok-Lin, M.D.
University of California, San Francisco

Genetic Counseling

RTT12

Direct To Consumer (DTC) Genetic Testing: Exploring the Benefits, Limitations and What to Do When a Patient Brings Results to the Clinic

Rachel Donnell, M.M.Sc., L.C.G.C.
Seattle Reproductive Medicine

Health Disparities

RTT13

Climate and health Challenges in Vulnerable Populations

Rubin Alvero, M.D.
Stanford University



ROUNDTABLE DISCUSSIONS

TUESDAY, OCTOBER 15, 2019

Legal

RTT14

Legal and Ethics Challenges in Independent Surrogacy Arrangements

Molly O'Brien

Law offices of Molly O'Brien

RTT15

HIPAA Risk Assessment: Hand-On Help for the Administrator

Lisa Rinehart, R.N., J.D.

Legal Care Consulting

Male Reproduction and Urology

RTT16

Hypogonadism: Implications of Disease and Treatment for the Infertile Male

Mohit Khera, M.D.

Baylor College of Medicine

RTT17

Patient-Centered Approach to Azoospermia: Choosing the Best Technique for Sperm Retrieval

Thomas Walsh, M.D.

Washington University

Menopause and Ovarian Insufficiency

RTT18

Is there a role for testosterone use in women?

Jan Shifren, M.D.

Massachusetts General Hospital

Mental Health

RTT19

Is Sharing really Caring? The Use of Self-Disclosure in Infertility Counseling

Julie Bindeman, Psy.D.

Integrative Therapy of Greater Washington

RTT20

CBT for Recurrent Pregnancy Loss: Benefits, Limitations, and Alternatives

Danielle Kaplan, Ph.D.

NYU Langone

Nurses

RTT21

Tips From a Third Party Nurse on Ways to Improve Our LGBTQ Patients' Experience

Michelle Flanagan, B.S.N., R.N.

IVI-RMA Global

Pediatric and Adolescent Gynecology

RTT22

Pediatric and Adolescent Gynecology from A to Z

Serena Chan, M.D.

University of Pittsburgh

Physician-Scientists

RTT23

How to Do Research Using Publicly Available Databases and Biorepositories

Zaher Merhi, M.D.

New Hope Fertility Center

Preimplantation Genetic Testing

RTT24

Prospect for Non Invasive PGT

Carmen Rubio, Ph.D.

Igenomix Spain

RTT25

Detection of Mosaicism and Segmental Variations

Mandy Katz-Jaffe

Colorado Center for Reproductive Medicine in Lone Tree, CO

Reproductive Biology and Technology

RTT26

Assisted Reproductive Technology (ART) Laboratory Networks/Mergers: Do They Improve Outcome?

Jason Swain, Ph.D.

Colorado Center for Reproductive Medicine

RTT27

TESE for Male Factor Infertility Patient Who Can Ejaculate (Oligozoospermia or Oligoasthenozoospermia or Oligoteratozoospermia): Where is the Evidence?

Speaker TBD



ROUNDTABLE DISCUSSIONS

TUESDAY, OCTOBER 15, 2019

Reproductive Endocrinology and Infertility

RTT28

Management of Polycystic Ovary Syndrome (PCOS) from Adolescence Through Senescence

Laura Cooney, M.D.

University of Wisconsin

RTT29

The Ethics of Baby Making in the Age of CRISPR

Sigal Klipstein, M.D.

InVia Fertility

Reproductive Immunology

RTT30

Immune Etiology of Recurrent Pregnancy Loss

Joanne Kwak-Kim, M.D., M.P.H.

Chicago Medical School, Rosalind Franklin University of Medicine and Science

Reproductive Managers

RTT31

HIPPA Headaches and Ways to Avoid Them

Linsey McBain, B.A.

Reproductive Management Associates of New Jersey

Reproductive Surgery

RTT32

Racial Differences in Fibroid Care - Why is This Happening?

Erica Marsh, M.D.

University of Michigan

RTT33

Ovarian Surgery – Maximizing Results and Limiting Trauma

Linnea Goodman, M.D.

University of North Carolina

Spanish Reproductive Medicine

RTT34

Triggering with GNRH-Agonists in Assisted Reproductive Technology (ART) Patients.

Claudio Benadiva, M.D.

University of Connecticut

Turkish Reproductive Medicine

RTT35

Random Start Ovarian Stimulation-Is It For My Practice?

Hakan Cakmak, M.D.

University of California, San Francisco



ROUNDTABLE DISCUSSIONS

WEDNESDAY, OCTOBER 16, 2019

Access to Care

RTW1

Time To Get Creative: How To Improve Access To Care In Your Community

Tia Jackson-Bey, M.D.

University of Illinois College of Medicine at Chicago

Androgen Excess

RTW2

Ultrasound in the Diagnosis of Polycystic Ovary Syndrome (PCOS)

Marla Lujan, M.Sc., Ph.D.

Cornell University

Assisted Reproductive Technology

RTW3

"For Cryo-ing Out Loud: Protecting Your Cryo Assets"

Stephanie Nichols-Burns, Ph.D.

Yale University

RTW4

Primary Ovarian Insufficiency (POI): Diagnosis, Causes, and Long-Term Health

Heather Hipp, M.D.

Emory University

Complementary and Integrative Medicine

RTW5

Ayurveda Integrative Medicine in Infertility Treatment

Olarik Musigavong, M.D., M.Sc.

Chaophya Abhaibhubejhr Hospital, Thailand

Early Pregnancy

RTW6

Aneuploidy as it Relates to Early Pregnancy Loss

William Kearns, Ph.D.

Johns Hopkins University School of Medicine,

Advagenix

Fibroids

RTW7

Tips and Tricks for Surgical Management of Uterine Fibroids

Zaraq Khan, M.D.

Mayo Clinic

Genetic Counseling

RTW8

PGT-M for Mild Conditions

Rachael Cabey, M.S., L.C.G.C.

CooperGenomics

Health Disparities

RTW9

Abnormal Myometrial Stem Cells Are Responsible For Health Disparity In Uterine Fibroids

Qiwei Yang, Ph.D.

University of Illinois at Chicago

Legal

RTW11

Legal and Ethical Considerations in Multiple Surrogate Situations

Meryl Rosenberg, J.D.

Private Practice

LGBTQ

RTW12

Ovarian Stimulation in Transgender Men

Molly Moravek, M.D.

University of Michigan

Male Reproduction and Urology

RTW10

Male Home Fertility Testing: Pros and Cons for the Consumer and Medical Practitioner

Natan Bar-Chama, M.D.

Reproductive Medicine Associates of New York

RTW13

The Future of Male Infertility Microsurgery: Promising Emerging Technologies

Philip Li, M.D.

Cornell University

RTW14

Fertility Preservation in the Male Across the Lifespan

Robert Brannigan, M.D.

Northwestern University



ROUNDTABLE DISCUSSIONS

WEDNESDAY, OCTOBER 16, 2019

Mental Health

RTW15

Modeling Good Behavior- The Ethics Of Surrogacy

Deborah Levy, M.A., L.P.C.

ConceiveAbilities

RTW16

Lessons from an Adoption Plan: Differences, Similarities in Disclosure to Donor - Conceived Offspring

Dori Kavanagh, L.C.S.W.

Private Practice

Nurses

RTW17

Tips from a Fertility Pharmacy Nurse Educator: Ways to Improve Patient Experience with Fertility Medications

Mary Vietzke, B.S.N., R.N.

Schrafts 2.0 Pharmacy

Nutrition

RTW18

Polycystic Ovary Syndrome (PCOS): Optimizing Fertility Through Nutrition

Angela Grassi, M.S., R.D.N., L.D.N.

Polycystic Ovary Syndrome (PCOS) Nutrition Center

Preimplantation Genetic Testing

RTW19

Update of Randomized Control Trials on Clinical Outcome of PGT-A

Eric Forman, M.D.

Columbia University Fertility Center

RTW20

Prospective Carrier Screening and its Impact of PGT Uptake

Joe Leigh Simpson, M.D.

Florida International University

Regenerative Medicine and Stem Cell Biology

RTW21

New Technologies for Stimulating Gametogenesis in a Dish

Philip Jordan, Ph.D.

Johns Hopkins University Bloomberg School of Public Health

Reproductive Biology and Technology

RTW22

Clinical Embryologist Career Paths- Excelling in the Multi-dimensional Role

T. Arthur Chang, Ph.D., E.L.D., H.C.L.D.

University of Texas Health Science Center

RTW23

What to do When Euploid Embryos Fail to Implant?

John Whitney, B.S.

Ovation Fertility

RTW24

Environmental Pollutants and Their Effect on In Vitro Fertilization (IVF) Outcomes

Eva Schenkman, M.S.

Mellowood Medical

Reproductive Endocrinology and Infertility

RTW25

Incorporating Principles of Quality Improvement into Your Practice

Marissa Weiss, M.D.

University of Pennsylvania

RTW26

Optimizing Your Fertility Preservation Program

Mary Ellen Pavone, M.D.

Northwestern University

RTW27

Increasing Access to Fertility Care

Christopher Herndon, M.D.

University of Washington

Reproductive Managers

RTW28

Embryo Disposition and Divorce

Jessica Medvedich, M.B.A., B.S.N., R.N.

Reproductive Medicine Associates of New Jersey

Reproductive Surgery

RTW29

Office Based Tissue Extraction Devices – Which is Best For You?

Mindy Christianson, M.D.

John Hopkins

Turkish Reproductive Medicine

RTW30

Alternate Topic: Surgical Approach to Endometriosis

Ercan Bastu, M.D.

Fulya Acibadem Hastanesi



VIDEO SESSIONS

Monday, October 14, 2019

4:30 pm - 5:30 pm

VIDEO PROGRAM PRIZE SESSION

Prize Presenter: Tommaso Falcone
Moderators: Steven Lindheim and Grace Janik

4:30 PM V-1

TECHNIQUES FOR SUCCESSFUL VAGINAL ANASTOMOSIS IN THE UTERINE TRANSPLANT PATIENT. Jenna M Rehmer, MD, Elliott G Richards, MD, Cecile A Ferrando, MD, MPH and Rebecca Flyckt, MD, Cleveland Clinic Foundation, Cleveland, OH

4:42 PM V-2

SURGICAL MANAGEMENT OF DEEP INFILTRATING ENDOMETRIOSIS INVOLVING THE RECTOSIGMOID COLON. Natalia C Larena, MD¹, Anup B. Shah, MD, MS¹, Hermann Kessler, MD, PhD², Tommaso Falcone, M.D.³ and Rebecca Flyckt, MD¹, ¹Cleveland Clinic Foundation, Cleveland, OH, ²Cleveland Clinic, Cleveland, OH, ³Cleveland Clinic, Cleveland, OH

4:53 PM V-3

NO-SCALPEL VASECTOMY: PUNCTURE-FIRST WITH MULTI-OCCLUSION TECHNIQUE. Khushabu Kasabwala, MD¹, Helen Levey Bernie, DO MPH², Soo Jeong Kim, MD¹, Vanessa L Dudley, MSHS³ and Marc Goldstein, MD⁴, ¹New York Presbyterian - Weill Cornell Medical Center, New York, NY, ²Memorial Sloan Kettering Cancer Center, New York, NY, ³Weill Cornell Medicine, New York, NY, ⁴Weill Cornell Medicine, New York Presbyterian Hospital, New York, NY

5:06 PM V-4

DEVELOPMENT OF AN AUTOMATIC PRONUCLEAR DETECTION SYSTEM FOR HUMAN EMBRYOS USING DEEP LEARNING TECHNOLOGY. Hiroyuki Watanabe, M.S.¹, Noritaka Fukunaga, Ph.D.¹, Sho Sanami, Ph.D.², Hiroya Kitasaka, Ph.D.¹, Yuji Tsuzuki, M.S.², Yuta Kida, M.S.¹, Seiji Takeda, M.S.² and Yoshimasa Asada, M.D., Ph.D.¹, ¹Asada Ladies Clinic, Nagoya, Aichi, Japan, ²Research & Development Center, Dai Nippon Printing Co., Ltd., Kita-ku, Tokyo, Japan

5:18 PM V-5

TRANSGENDER YOUTH: EXPLAINING HORMONAL AFFIRMATION TREATMENT VIA POWTOON FORMAT-(MTF). Gloria Bachmann, MD, MMS and Ian Marshall, MD, Rutgers Robert Wood Johnson Medical School, New Brunswick, NJ

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VIDEO SESSIONS

Tuesday, October 15, 2019

4:15 pm - 5:30 pm

VIDEO SESSION 2

Moderators: Ceana Nezhat and Mark Trollice

- 4:15 PM V-6 CONTINUOUS MONITORING OF THE EMBRYO DEVELOPMENT: A LEAP TOWARDS AUTOMATED SYSTEMS.** Lorena Bori, PhD¹, Raquel Del Gallego, PhD¹, Lucia Alegre, PhD¹, Antonio Pellicer, MD² and Marcos Meseguer, PhD³, ¹IVIRMA Global, Valencia, Spain, ²IVI Foundation Innovation - Reproductive Medicine IIS La Fe, Valencia, Spain, ³IVIRMA Global, Valencia, Spain, Tel Aviv, Israel
- 4:23 PM V-7 COMPARISON OF SPERM RETRIEVAL TECHNIQUES FOR MEN WITH OBSTRUCTIVE AZOOSPERMIA.** Joshua N Bitran, BS¹, Premal Patel, MD² and Ranjith Ramasamy, M.D³, ¹University of Miami, Miami, FL, ²University of Miami Miller School of Medicine, Miami, FL, ³University of Miami
- 4:28 PM V-8 POST-ABLATION RESIDUAL DISEASE: HISTOLOGICAL ASSESSMENT OF EXCISED PERITONEAL ENDOMETRIOSIS.** Christine Hur, MD¹, Tommaso Falcone, M.D.² and Rebecca Flyckt, MD³, ¹Cleveland Clinic, Cleveland, OH, ²Cleveland Clinic, Cleveland, OH, ³Cleveland Clinic Foundation, Cleveland, OH
- 4:34 PM V-9 TEACHING SURGERY FOR MASSIVE ADENOMYOSIS WHICH PRESERVES THE UTERUS.** Sherman Silber, MD¹, Yuting Fan, M.D.² and Sierra Goldsmith, B.S.¹, ¹Infertility Center of St. Louis, Chesterfield, MO, ²University of Michigan, Ann Arbor, MI
- 4:53 PM V-10 LAPAROSCOPIC RELOCATION OF THE OVARIES AFTER PRIOR TRANSPOSITION.** Jessica Traylor, M.D., Jaclyn Friedman, M.D. and Magdy P Milad, M.D., MS, Northwestern University Feinberg School of Medicine, Chicago, IL
- 5:01 PM V-11 OPTIMIZING FERTILITY PRESERVATION USING MULTIPLE MODALITIES IN A YOUNG PATIENT WITH CERVICAL CANCER.** Natalia C Larena, MD, Bouran Kilany, MD, Mariam Alhilli, MD and Rebecca Flyckt, MD, Cleveland Clinic, Cleveland, OH
- 5:09 PM V-12 LEFT OVARIAN TRANSPOSITION OF UNDESCENDED OVARY WITH UNICORNUATE UTERUS.** Kirsten Sasaki, M.D.¹ and Charles E. Miller, M.D.², ¹Advocate Lutheran General Hospital, Naperville, IL, ²The Advanced Gynecologic Surgery Institute/The Advanced IVF Institute, Charles E. Miller, MD & Associates, Naperville, IL
- 5:15 PM V-13 EXCISION OF A PELVIC SIDE-WALL FIBROID.** Alexander Kotlyar, MD¹ and Pinar Kodaman, MD/PhD², ¹Yale University, New Haven, CT, ²Yale School of Medicine, New Haven, CT



VIDEO SESSIONS

Wednesday, October 16, 2019

3:45 pm - 5:30 pm

VIDEO SESSION 3

Moderators: Marius Meintjes and Tommaso Falcone

- | | | | |
|--------------|---|--------------|---|
| 3:45 PM V-14 | 2- PORT MYOMECTOMY TECHNIQUE FOR UTERUS ADHERENT TO THE ANTERIOR ABDOMINAL WALL. Hadi Ramadan, M.D., Jerri A Waller, M.D., Traci E Ito, M.D. and Joseph L Hudgens, M.D., Eastern Virginia Medical School, Norfolk, VA | 4:21 PM V-18 | LAPAROSCOPIC MANAGEMENT OF TUBAL DISEASE TO IMPROVE FERTILITY OUTCOMES. Aarathi Cholkeri-Singh, M.D. ¹ and Charles E. Miller, M.D. ² , ¹ The Advanced Gynecologic Surgery Institute, Naperville, IL, ² The Advanced Gynecologic Surgery Institute/The Advanced IVF Institute, Charles E. Miller, MD & Associates, Naperville, IL |
| 3:53 PM V-15 | PROOF OF CONCEPT FOR AN AUTOMATED TANK STORING FROZEN EMBRYOS AND GAMETES IN AN ART LABORATORY. Timothy Allen Sharp, B.S. ¹ , William N Garbarini Jr., MBA ² , Chad A Johnson, PhD ¹ , Ann Watson, B.A. ¹ and Kathryn J Go, PhD ¹ , ¹ TMRW Life Sciences, New York, NY, ² TMRW Life Sciences, Inc., New York, NY | 4:27 PM V-19 | ROBOTIC ASSISTED LAPAROSCOPIC RESECTION OF ANTERIOR ADENOMYOMA. Papri Sarkar, MD ¹ and Anthony N. Imudia, MD ² , ¹ OBGYN Resident, Tampa, FL, ² University of South Florida, Tampa, FL |
| 3:56 PM V-16 | LAPAROSCOPIC RESECTION OF FUNCTIONAL, NON-COMMUNICATING UTERINE HORN. Rachel M. Whynott, M.D. ¹ and Rachel Mejia, D.O. ² , ¹ University of Iowa Hospitals and Clinics, Iowa City, IA, ² University of Iowa, Iowa City, IA | 4:35 PM V-20 | SPECIALIZED PIEZO-ICSI FOR LOW QUALITY OOCYTES. Atsushi Tanaka, M.D., Ph.D., Motoi Nagayoshi, M.D., Izumi Tanaka, Ph.D., Takashi Yamaguchi, M.D., Ph.D. and Motoharu Ohno, M.D., Saint Mother Hospital, Kitakyushu, Japan |
| 4:03 PM V-17 | MEIOTIC SPINDLE AVOIDANCE USING A POLARIZING FILTER AT THE TIME OF ICSI, A STEP CLOSER TOWARDS INDIVIDUALIZED ICSI. Alejandro Chavez-Badiola, MD ¹ , Rodolfo Garcia-Sánchez, MSc ² , Erika L Iniguez-Arteaga, Biol ² , Dante Josué Sánchez González, Biol ¹ , Carmen Ortega Madera, Biol ¹ and Sarahi Vazquez-Pacheco, Biol ¹ , ¹ New Hope Fertility Center Mexico, Mexico City, EM, Mexico, ² New Hope Fertility Center Mexico, Guadalajara, JA, Mexico | 4:42 PM V-21 | NOVEL UTERINE CLOSURE TECHNIQUE TO PREVENT INTRAUTERINE ADHESIONS. Clarissa J Lam, MD and Anthony N Imudia, MD, University of South Florida, Tampa, FL |



Abstract Reviewers

ASRM appreciates those who volunteered to review the 2019 abstract submissions. Thank you for your your time and participation.

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Yulian Zhao
Julianne Zweifel



ORAL ABSTRACTS

Monday, October 14, 2019

10:45 am - 12:15 pm

PRIZE PAPER SESSION

SCIENTIFIC CONGRESS PRIZE PAPER SESSION 1

The first six papers are candidates for the ASRM Scientific Congress Prize Paper Awards.
Six additional candidates will be presented during the Prize Paper Candidates' session on Tuesday.
Moderator: Lauren Bishop

10:45 AM **O-1 ANTIDEPRESSANT MEDICATION EXPOSURE: TIME TO PREGNANCY AND RISK OF PREGNANCY LOSS.** Lindsey A Sjaarda, PhD¹, Jeannie G Radoc, BS¹, Kerry S Flannagan, PhD¹, Sunni L Mumford, PhD¹, Neil J Perkins, PhD¹, Robert M Silver, MD² and Enrique F Schisterman, PhD¹, ¹Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ²University of Utah, Salt Lake City, UT

11:15 AM **O-3 CAN HYSTEROSALPINGO FOAM SONOGRAPHY (HYFOSY) REPLACE HYSTEROSALPINGOGRAPHY (HSG) AS FIRST CHOICE TUBAL PATENCY TEST: A RANDOMIZED COMPARISON (FOAM STUDY)?** Nienke van Welie, M.D.¹, Joukje van Rijswijk, M.D.¹, Kim Dreyer, M.D., PhD², Marcel H.A. van Hooff, M.D., PhD³, Harold Verhoeve, M.D., PhD⁴, J. P. de Bruin, M.D., PhD⁵, Femke Mol, M.D., PhD⁶, Marchien van Baal, M.D., PhD⁷, Bob van de Laar, M.D.⁸, Nils B. Lambalk, M.D., PhD¹, Madelon van Wely, PhD⁹, Jaap Stoker, M.D., PhD¹⁰, Ben W Mol, M.D., Ph.D. Prof.¹¹, Velja Mijatovic, M.D., PhD² and FOAM study Group, ¹Amsterdam UMC, Vrije Universiteit Amsterdam, Department of Reproductive Medicine, Amsterdam, Netherlands, ²Department of Reproductive Medicine, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, Netherlands, ³Franciscus Hospital, Department of Obstetrics and Gynecology, Rotterdam, Netherlands, ⁴OLVG Oost Hospital, Department of Obstetrics and Gynecology, Amsterdam, Netherlands, ⁵Jeroen Bosch Hospital, Department of Obstetrics and Gynecology, Den Bosch, Netherlands, ⁶Amsterdam UMC, University of Amsterdam, Center for Reproductive Medicine, Amsterdam, Netherlands, ⁷Flevo Hospital, Department of Obstetrics and Gynecology, Almere, Netherlands, ⁸OLVG

11:00 AM **O-2 EFFECTS OF FOLIC ACID AND ZINC SUPPLEMENTATION IN MEN ON SEMEN QUALITY AND LIVE BIRTH AMONG COUPLES UNDERGOING INFERTILITY TREATMENT: FINDINGS FROM THE FAZST RANDOMIZED TRIAL.** Enrique F Schisterman, PhD¹, Lindsey A Sjaarda, PhD², Traci Clemons, PhD³, Douglas T Carrell, PhD⁴, Neil J Perkins, PhD¹, Erica Johnstone, MD⁵, Denise Lamb, BSN⁵, Kayla Chaney, BA³, Bradley J Van Voorhis, MD⁶, Ginny L Ryan, MD, MA⁷, Karen M Summers, MPH CHES⁸, James Hotaling, MD⁴, Jared C Robins, MD⁹, James L Mills, MD, MS¹, Pauline Mendola, PhD¹⁰, Zhen Chen, PhD¹, C Matthew Peterson, MD⁵ and Sunni L Mumford, PhD¹¹, ¹NICHD, Bethesda, MD, ²Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ³The Emmes Company LLC, Rockville, MD, ⁴University of Utah School of Medicine, Salt Lake City, UT, ⁵University of Utah, Salt Lake City, UT, ⁶University of Iowa Carver College of Medicine, Iowa City, IA, ⁷University of Iowa Hospitals and Clinics, Iowa City, IA, ⁸University of Iowa, Iowa City, IA, ⁹Northwestern University, Chicago, IL, ¹⁰National Institutes of Child Health and Human Development, Bethesda,



ORAL ABSTRACTS

11:30 AM O-4

MALE MARIJUANA USE AND SPONTANEOUS ABORTION.

Alyssa F Harlow, MPH¹, Amelia K Wesselink, Ph.D.¹, Kenneth J Rothman, Dr.P.H.², Elizabeth E Hatch, Ph.D.¹ and Lauren A Wise, Sc.D.¹, ¹Boston University School of Public Health, Boston, MA, ²Boston, MA

West, Department of Obstetrics and Gynecology, Amsterdam, Netherlands, ⁹Amsterdam UMC, University of Amsterdam, Department of Epidemiology, Biostatistics and Bioinformatics, Amsterdam, Netherlands, ¹⁰Amsterdam UMC, University of Amsterdam, Department of Radiology and Nuclear Medicine, Amsterdam, Netherlands, ¹¹Monash University, Monash Medical Centre, Department of Obstetrics and Gynecology, Melbourne, VIC, Australia

11:45 AM O-5

BEETROOT, WATERMELON AND GINGER JUICE SUPPLEMENTATION MAY INCREASE THE CLINICAL OUTCOMES OF INTRACYTOPLASMIC SPERM INJECTION CYCLES.

Gabriela Halpern, MSc¹, Amanda Souza Setti, MSc², Daniela Paes de Almeida Ferreira Braga, PhD², Assumpto Iaconelli Jr., MD² and Edson Borges Jr., PhD², ¹Fertility Medical Group, Sao Paulo, Brazil, ²Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil

12:00 PM O-6

PHASE 3 TRIAL RESULTS: EFFICACY AND SAFETY OF ELAGOLIX IN A SUBSET OF WOMEN WITH UTERINE FIBROIDS AND ADENOMYOSIS.

Ozgul Muneyyirci-Delale, MD¹, David F Archer, MD², Jin Hee Jeannie Kim, MD³, Ran Liu, PhD⁴, Charlotte D Owens, MD⁴ and Elizabeth E Puscheck, MD, MS, MBA⁵, ¹State University of New York, Brooklyn, NY, ²Eastern Virginia Medical School, Norfolk, VA, ³Columbia University, New York, NY, ⁴AbbVie, Inc., North Chicago, IL, ⁵Wayne State University, Detroit, MI



ORAL ABSTRACTS

Monday, October 14, 2019

10:45 am - 12:15 pm

ORAL ABSTRACT SESSION

[ART LAB: BASIC](#)
[ART OFFSPRING](#)
[CONTRACEPTION AND COMPLEX FAMILY PLANNING](#)
[CRYOPRESERVATION AND FROZEN EMBRYO TRANSFER](#)
[ENVIRONMENT AND REPRODUCTION](#)
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[PREIMPLANTATION GENETIC TESTING](#)
[REPRODUCTIVE BIOLOGY: HUMAN STUDIES](#)
[REPRODUCTIVE SURGERY AND PROCEDURES](#)

ART LAB: BASIC

Moderators: Melanie Clemmer and Dawn Kelk

10:45 AM **O-7** **IMPLEMENTATION OF AN ELECTRONIC WHITEBOARD FOR QUALITY MANAGEMENT IN THE IN VITRO FERTILIZATION LABORATORY.** Phillip A Romanski, MD¹, Ann M Thomas, PhD², Jay Patel, MS³, Dan Zhang, MD, PhD¹ and Catherine Racowsky, PhD², ¹Brigham & Women's Hospital and Harvard Medical School, Boston, MA, ²Brigham & Women's Hospital, Boston, MA, ³Brigham and Womens Hospital, Boston, MA

11:00 AM **O-8** **THE CLINICAL RESULTS OF PIEZO-ICSI COMPARED TO CONVENTIONAL-ICSI: A SIBLING-OOCYTE STUDY.** Noriyuki Okuyama, M.Sc.¹, Ryuichiro Obata, Ph.D.¹, Nao Oka, M.Sc.¹, Nobuya Aono, Ph.D.², Tomoko Hashimoto, M.D., Ph.D.¹ and Koichi Kyono, M.D., Ph.D.¹, ¹Kyono ART Clinic Takanawa, Tokyo, Japan, ²3-13-1, takanawa, Minato-ku, Tokyo, Japan

11:15 AM **O-9** **WOULD AN AUTOMATED SYSTEM DETECTING EMBRYO DEVELOPMENTAL EVENTS SELECT THE SAME EMBRYO AS AN EMBRYOLOGIST USING A MORPHOKINETIC ALGORITHM?** Raquel Del Gallego, PhD¹, Lorena Bori Arnal, PhD¹, Lucia Alegre, PhD¹, Teija Peura, PhD², Manuel Ugidos, PhD³ and Marcos Meseguer, PhD⁴, ¹IVIRMA Global, Valencia, Spain, ²Genea Biomedx, Sydney, NSW, Australia, ³Instituto de Biomedicina de Valencia, Valencia, Spain, ⁴IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

11:30 AM **O-10** **PROPORTION OF PATIENTS DETECTED WITH SUBCLINICAL HYPOTHYROIDISM IS INDEPENDENT OF TIME OF BLOOD DRAW.** Christine Briton-Jones, PhD, HCLD¹, Jenna Friedenthal, MD², Sydney Chang, MD², Taraneh Gharib Nazem, MD², Dmitry Gounko, MA¹, Joseph A. Lee, BA¹ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

11:45 AM **O-11** **PRELIMINARY RESULTS FROM THE FIRST REGISTERED PILOT TRIAL WITH MATERNAL SPINDLE TRANSFER TO OVERCOME INFERTILITY.** Nuno Costa-Borges, PhD¹, Eros Nikitos, MSc², Katharina Spath, PhD³, Dagan Wells, PhD³, Klaus Rink, PhD¹, Yannis Vasilopoulos, MD⁴, Ioannis Zervomanolakis, MD², Dimitropoulos Konstantinos, MD², Polyzos Panagiotis, MD², Stylianos Grigorakis, MD, FRCOG², George Kontopoulos, MD², Konstantinos Kostaras, MD, PhD⁴, Panagiotis S Psathas, MD⁴ and Gloria Calderón, PhD¹, ¹Embryotools, Barcelona, Spain, ²Institute of Life, Athens, Greece, ³IVI RMA, Oxford, United Kingdom, ⁴Institute of Life, Athens, Greece



ORAL ABSTRACTS

12:00 PM **O-12 EFFECT OF SPERM SELECTION**
USING MACS TECHNOLOGY IN THE PGT-A PROGRAM COMPARED WITH STANDARD SPERM PREPARATION.

Laura Romany, PhD¹, Jesús Aguilar, PhD², Lucia Alegre, PhD³, Belén Aparicio-Ruiz, PhD¹, Arantza Delgado, PhD⁴, Jose Alejandro Remohi, MD, PhD⁵ and Marcos Meseguer, PhD⁶, ¹IVIRMA, Valencia, Spain, ²IVI VIGO, vigo, Spain, ³IVIRMA Global, Valencia, Spain, ⁴IVIRMA Valencia, Valencia, Spain, ⁵IVIRMA Valencia,, Valencia, Spain, ⁶IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

ART OFFSPRING

Moderators: Emily Jungheim and Elliott Richards

10:45 AM **O-13 THIRD GRADE ACADEMIC**
ACHIEVEMENT AMONG CHILDREN CONCEIVED WITH IVF: A POPULATION-BASED STUDY IN TEXAS.

Stephanie Watkins, PhD¹, Morton B Brown, PhD², Barbara Luke, ScD, MPH³, Mary K Ethen, MPH⁴, Mark A Canfield, PhD⁴, Ethan Wantman, MBA⁵, Nina E Forestieri, MPH⁶, Mahsa M Yazdy, PhD⁷, Sarah C Fisher, MPH⁷, Marilyn L Browne, PhD⁷, Hazel B Nichols, PhD⁷, Valerie L Baker, MD⁸, Michael L Eisenberg, M.D.⁹, Sergio C Oehninger, MD, PhD¹⁰ and Kevin J. Doody, M.D.¹¹, ¹TARGET PharmaSolutions, Durham, NC, ²University of Michigan, Ann Arbor, MI, ³Michigan State University, East Lansing, MI, ⁴Texas Department of State Health Services, Austin, TX, ⁵Redshift Technologies, Inc., New York, NY, ⁶N.C. Birth Defects Monitoring Program, Raleigh, NC, ⁷Affiliation not provided, ⁸Johns Hopkins University School of Medicine, Division of Reproductive Endocrinology and Infertility, Lutherville, MD, ⁹Stanford University, Stanford, CA, ¹⁰300 E. 55th street, New York, NY, ¹¹CARE Fertility, Bedford, TX

11:00 AM **O-14 SEX DIFFERENCES IN BIRTH OUTCOMES FOR MASSACHUSETTS INFANTS FOLLOWING ART.** Sunah S Hwang,

MD MPH¹, Dmitry Dukhovny, MD MPH², Daksha Gopal, MPH², Howard Cabral, PhD, MPH³, Hafsatu Diop, MD, MPH⁴ and Judy E Stern, PhD⁵, ¹University of Colorado School of Medicine, Aurora, CO, ²Affiliation not provided, ³Boston University, Boston, MA, ⁴MDPH,, Boston, MA, ⁵Dartmouth-Hitchcock, Lebanon, OR

11:15 AM **O-15 CONCEPTION BY INFERTILITY TREATMENT AND NEWBORN DNA METHYLATION.**

Edwina Yeung, PhD¹, Pauline Mendola, PhD¹, Rajeshwari Sundaram, PhD¹, Xuehuo Zeng, PhD², Weihua Guan, PhD³, Michael Y Tsai, PhD³, Sonia L Robinson, PhD¹, Judy E Stern, PhD⁴ and Erin M Bell, PhD⁵, ¹National Institutes of Child Health and Human Development, Bethesda, MD, ²Glotech Inc, Rockville, MD, ³University of Minnesota, Minneapolis, MN, ⁴Dartmouth-Hitchcock, Lebanon, OR, ⁵University at Albany, Albany, NY

11:30 AM **O-16 BABIES BORN FOLLOWING ADMINISTRATION OF NOLASIBAN BEFORE EMBRYO TRANSFER (ET) AFTER IVF: NEONATAL AND INFANT DEVELOPMENT OUTCOMES FROM A DOUBLE-BLIND, PLACEBO-**

CONTROLLED, CLINICAL TRIAL. Andrew Humberstone, PhD¹, Paul Terrill, PhD², Lynne Macgregor, MSc¹ and Ernest Loumaye, MD, PhD¹, ¹ObsEva SA, Plan-les-Ouates, Switzerland, ²Cytel Inc, London, United Kingdom

11:45 AM **O-17 SIMILAR SUCCESS RATES WITH FROZEN OOCYTES BUT INCREASED RATE OF LARGE FOR GESTATIONAL AGE (LGA) INFANTS COMPARED TO FRESH OOCYTES.**

Channing Burks, MD¹, Kristin Van Heertum, MD¹, Alexandra C Purdue-Smithe, PhD², Sunni L Mumford, PhD³, James Goldfarb, MD, MBA⁴ and Rachel S Weinerman, MD¹, ¹University Hospitals Fertility Center/Case Western Reserve University, Beachwood, OH, ²NICHD, Bethesda, MD, ³National Institute of Child Health and Human Development, Bethesda, MD, ⁴OH



ORAL ABSTRACTS

12:00 PM **O-18 PREVALENCE OF CLINICALLY SIGNIFICANT CONGENITAL HEART DEFECTS IN LOW-RISK IVF PREGNANCIES.** Sarah H Bjorkman, MD¹, Kurt R Bjorkman, MD², Anna K Sfakianaki, MD, MPH³, Joshua A Copel, MD³ and Mert Ozan Bahtiyar, MD³, ¹Yale School of Medicine, New Haven, CT, ²Department of Pediatrics, Yale School of Medicine, New Haven, CT, ³Yale Maternal Fetal Medicine, Fetal Care Center, New Haven, CT

CONTRACEPTION AND COMPLEX FAMILY PLANNING

Moderator: Torie Plowden and Alessandro Schoffrer

10:45 AM **O-19 TOPICAL LIDOCAINE-PRILOCAINE CREAM VERSUS LIDOCAINE 1% SUBCUTANEOUS INFILTRATION DURING NEXPLANON INSERTION: A RANDOMIZED CONTROLLED STUDY.** Ahmed M Abbas, MD¹, Mohamed Khalaf, MD¹, Eman El-said, MBBCh² and Ahmed Nasr, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Luxor General Hospital, Luxor, Egypt

11:00 AM **O-20 A RANDOMIZED CLINICAL TRIAL BETWEEN ULTRASOUND-GUIDED AND UTERINE SOUND-SPARING APPROACH FOR COPPER INTRAUTERINE DEVICE INSERTION.** Mohammed Khairy Ali, MD¹, Ahmed M Abbas, MD¹, Asmaa Ramadan, MBBCh², Ahmed M. Abdelmagied, MD¹, Mostafa Nasr Ibrahim, MD¹ and Ahmed Abu-Elhassan, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Qous Central Hospital, Qena, Egypt

11:15 AM **O-21 EFFECT OF CELL-PHONE ASSISTED POSTPARTUM COUNSELING ON THE USE OF LONG-ACTING REVERSIBLE CONTRACEPTIVES: A RANDOMIZED CONTROLLED TRIAL.** Omar M Shaaban, MD¹, Ahmed M Abbas,

MD¹, Treza Saber, MSc², Entisar Youness, MD² and Manal Farouk, MD², ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics & Gynecological Nursing, Faculty of Nursing, Assiut University, Assiut, Egypt

11:30 AM **O-22 INFLUENCE OF GENETIC VARIANTS ON WEIGHT GAIN AMONG ETONOGESTREL CONTRACEPTIVE IMPLANT USERS.** Aaron Lazorwitz, MD, MSCS¹, Eva Dindinger, MPH¹, Margaret A Harrison, BA¹, Christina L Aquilante, PharmD², Jeanelle Sheeder, PhD¹ and Stephanie Teal, MD, MPH¹, ¹University of Colorado Anschutz Medical Campus, Aurora, CO, ²University of Colorado Anschutz Medical Campus, Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO

11:45 AM **O-23 EFFICACY AND SAFETY OF A MULTIPURPOSE VAGINAL pH-REGULATOR: RESULTS FROM THE PHASE 3, AMPOWER CONTRACEPTION CLINICAL TRIAL.** Michael A. Thomas, MD¹, Kelly R. Culwell, MD, MPH², Clint Dart, MS³ and Brandi Howard, PhD², ¹University of Cincinnati, Cincinnati, OH, ²Evoform, Inc., San Diego, CA, ³Health Decisions, Durham, NC

12:00 PM **O-24 BLEEDING PATTERNS AND ENDOMETRIAL SAFETY WITH A 1-YEAR, SEGESTERONE ACETATE/ETHINYL ESTRADIOL CONTRACEPTIVE VAGINAL SYSTEM.** David F Archer, MD¹, Kurt T Barnhart, MD, MSCE², Anita L Nelson, MD³, Mitchell D Creinin, MD⁴, Jeffrey T Jensen, MD, MPH⁵, Sebastian Mirkin, MD⁶ and Ruth B Merkatz, PhD⁷, ¹Eastern Virginia Medical School, Norfolk, VA, ²University of Pennsylvania, Perelman School Of Medicine, Philadelphia, PA, ³Essential Access Health, Los Angeles, CA, ⁴University of California - Davis, Sacramento, CA, ⁵Oregon Health & Science University, Portland, OR, ⁶TherapeuticsMD, Boca Raton, FL, ⁷Population Council, New York, NY



ORAL ABSTRACTS

CRYOPRESERVATION AND FROZEN EMBRYO TRANSFER

Moderators: Alicia Broussard and Sangita Jindal

- 10:45 AM **O-25** **"UNIVERSAL WARMING PROTOCOL" FOR A TRANSNATIONAL EGG DONATION PROGRAM WITH VITRIFIED OOCYTES: A RETROSPECTIVE MULTI-CENTRE STUDY.** Lodovico Lodovico Parmegiani, Ph D, Maria Giulia Minasi, M Sc, Alessandra Arnone, M Sc, Valentina Casciani, Ph D, Graciela Estela Cognigni, MD, Rita Viñoles, MD, Maria Teresa Varricchio, MD, Luis Alberto Quintero, MD, Ermanno Greco, MD and Marco Filicori, MD, GynePro Medical Centers- NexctClinics International, Bologna, Italy
- 11:00 AM **O-26** **MORPHOLOGY STILL MATTERS WHEN SELECTING EUPLOID EMBRYOS: INNER CELL MASS (ICM) AND TROPHOCTODERM (TE) ARE PREDICTIVE OF PREGNANCY OUTCOMES.** Sarah Druckenmiller, MD¹, Nicole Noyes, MD², Megan E Sutter, PhD¹, David H. McCulloh, Ph.D.³ and James A Grifo, MD, PhD³, ¹NYU Langone Health, New York, NY, ²Northwell Health, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY
- 11:15 AM **O-27** **CLINICAL FACTORS ASSOCIATED WITH THAW SURVIVAL IN A COHORT OF 6167 VITRIFIED-WARMED, EUPLOID BLASTOCYSTS.** Margeaux Oliva, MD¹, Christine Briton-Jones, PhD, HCLD², Dmitry Gounko, MA², Joseph A. Lee, BA², Alan B Copperman, MD¹ and Lucky Sekhon, MD², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- 11:30 AM **O-28** **ANTIOXIDANTS INCREASE BLASTOCYST CRYOSURVIVAL AND VIABILITY POST VITRIFICATION.** Thi T Truong, Bachelor of Sciences and David Gardner, Ph.D., School of BioSciences, University of Melbourne, Melbourne, VIC, Australia
- 11:45 AM **O-29** **DIFFERENCES IN OOCYTE SURVIVAL BETWEEN DONOR EGG BANKS AND SATELLITE CLINICS WITHIN THE SAME COMPANY.** Whitney Hewitt, BS¹,

Jennifer L Patrick, PhD¹, Lauren Johnson, MD, MSCE¹, Matrika Johnson, MD², Seth Katz, MD¹, Joe Whelan III, MD¹ and Tyl Taylor, phd², ¹Reproductive Endocrinology Associates of Charlotte, Charlotte, NC, ²REACH, Charlotte, NC

- 12:00 PM **O-30** **IMPROVED EMBRYOLOGY OUTCOME AND MORPHOKINETIC CHARACTERISTICS OF EMBRYOS DERIVED FROM FROZEN/THAWED OOCYTES INJECTED 3 VERSUS 2 HOURS POST-WARMING.** Christopher Norberg, MS¹, Qiansheng Zhan, MSc¹, Richard J Bodine, MS¹, Samuel H Jones, BS¹, Jason Park, MS¹, Katherine Larkins, BS¹, Zhen Ye, MS¹, Robert Clarke, PhD¹, Zev Rosenwaks, M.D.² and Nikica Zaninovic, Ph.D.¹, ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

ENVIRONMENT AND REPRODUCTION

Moderators: Jorge Chavarro and Lauren Wise

- 10:45 AM **O-31** **EFFECT OF WILDFIRE SMOKE ON PREGNANCY OUTCOMES IN THE NON-HUMAN PRIMATE.** Bryn Erin Willson, MD¹, Kent E Pinkerton, PhD², Bill Lasley, PhD³ and Nancy Gee, PhD⁴, ¹UC Davis Health, Sacramento, CA, ²UC Davis Center for Health and the Environment, Davis, CA, ³Center for Health & Environment, Davis, CA, ⁴UC Davis - Center for Health & Environment, Davis, CA
- 11:00 AM **O-32** **STRESS AND SUCCESS: DATA FROM A PROSPECTIVE COHORT INVESTIGATING THE IMPACT OF EARLY LIFE STRESS ON IVF OUTCOMES.** Marissa Steinberg Weiss, MD¹, Jessica R Walter, MD², Nathanael C Koelper, MPH², Charikleia Kalliora, MD², Rachel B Brooks, BS³, Natalie Clark Stentz, MD, MSCE⁴, Kurt T Barnhart, MD, MSCE², C. Neill Epperson, MD⁵ and Suneeta Senapati, MD, MSCE², ¹University of Pennsylvania,



ORAL ABSTRACTS

Philadelphia, PA, ²University of Pennsylvania, Division of Reproductive Endocrinology and Infertility, Philadelphia, PA, ³Penn Center for Women's Behavioral Wellness, Philadelphia, PA, ⁴Shady Grove Fertility, Atlanta, GA, ⁵Department of Psychiatry, University of Colorado School of Medicine- Anschutz Medical Campus, Aurora, CO

- 11:15 AM **O-33 PESTICIDE RESIDUE INTAKE FROM FRUIT AND VEGETABLE CONSUMPTION AND RISK OF LAPAROSCOPICALLY-CONFIRMED ENDOMETRIOSIS.** Holly Harris, M.P.H., Sc.D.¹, Kara L Cushing-Haugen, MS¹, Yu-Han Chiu, ScD, MD², Jorge E Chavarro, MD, Sc.D.³ and Stacey A Missmer, Sc.D.⁴, ¹Fred Hutchinson Cancer Research Center, Seattle, WA, ²Harvard T.H. Chan School of Public Health, Boston, MA, ³Harvard School of Public Health, Boston, MA, ⁴Michigan State and Harvard T.H. Chan SPH, Grand Rapids, MI

- 11:30 AM **O-34 BLOOD CADMIUM ASSOCIATED WITH HIGHER TESTOSTERONE AND ANTI-MÜLLERIAN HORMONE IN HEALTHY PREMENOPAUSAL WOMEN.** Keewan Kim, PhD¹, Carrie J Nobles, PhD¹, Anna Z Pollack, PhD², Lindsey A Sjaarda, PhD¹, Alexandra C Purdue-Smithe, PhD¹, Jean Wactawski-Wende, PhD³, Jessica R Zolton, DO¹, Joshua R Freeman, MPH¹, Jeannie G Radoc, BS¹, Victoria C Andriessen, BS¹, Zeina Alkhalaf, MPH¹ and Sunni L Mumford, PhD¹, ¹NICHD, Bethesda, MD, ²George Mason University, Fairfax, VA, ³University at Buffalo, Buffalo, NY

- 11:45 AM **O-35 THE ASSOCIATION OF URINARY CONCENTRATIONS OF BISPHENOL-A, AND DI-ETHYLHEXYL PHTHALATE METABOLITES WITH THYROID FUNCTION & AUTOIMMUNITY IN WOMEN FROM A FERTILITY CENTER: RESULTS FROM THE ENVIRONMENT AND REPRODUCTIVE HEALTH STUDY.** Irene Souter, MD¹, Lidia Mínguez-Alarcón, PhD², Tim Korevaar, MD PhD², Jennifer B Ford, RN², Jorge E Chavarro, MD, Sc.D.³ and Russ

Hauser, MD, MPH, Sc.D.², ¹MGH Fertility Center and Harvard Medical School, Boston, MA, ²Harvard T.H. Chan School of Public Health, Boston, MA, ³Harvard School of Public Health, Boston, MA

- 12:00 PM **O-36 NON-CHRONIC PRECONCEPTION OPIOID USE AND REPRODUCTIVE OUTCOMES.** Kerry S Flannagan, PhD¹, Jeannie G Radoc, BS¹, Sunni L Mumford, PhD¹, Victoria C Andriessen, BS², Lindsey A Sjaarda, PhD¹, Jessica R Zolton, DO³, Neil J Perkins, PhD¹, Keewan Kim, PhD³, Robert M Silver, MD⁴ and Enrique F Schisterman, PhD¹, ¹Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ²NICHD, Bethesda, MD, ³National Institute of Child Health and Human Development, NIH, Bethesda, MD, ⁴University of Utah, Salt Lake City, UT

GENETIC COUNSELING

Moderators: Rachel Donnell and Lauren Isley

- 10:45 AM **O-37 LESSONS LEARNED FROM EVALUATING DECISIONAL REGRET SURROUNDING PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY.** Amy Wijekoon, MD¹, Mitchell P Rosen, MD, HCLD² and Molly M Quinn, MD³, ¹University of California, San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California, Los Angeles, Los Angeles, CA
- 11:00 AM **O-38 FOCUSING ON PARENTAL ORIGIN OF ANEUPLOIDY: DOES PATERNAL AGE IMPACT ANEUPLOIDY RATES IN EMBRYOS?** Katrina Merrion, MS¹, Diane Ahern, MS¹, Jessica Adsit, MS², Katherine L Howard, MS¹, Dusan Kijacic, MS² and Michelle Kiehl, MS², ¹Natera, Inc., San Carlos, CA, ²Affiliation not provided
- 11:15 AM **O-39 DO BRCA MUTATIONS IMPACT ANEUPLOIDY RATES IN EMBRYOS?** Carrie Chou, MS¹, Ellen Thomas, MS², Katrina Merrion, MS¹ and Nina Wemmer, MS², ¹Natera, Inc., San Carlos, CA, ²Affiliation not provided



ORAL ABSTRACTS

11:30 AM **O-40 THE TP53 GENE (rs1625895) C>T POLYMORPHISM IS ASSOCIATED WITH OVARIAN RESERVE AND OVARIAN RESPONSE TO RECOMBINANT FSH DURING IVF/ICSI TREATMENT.** Joao Batista A Oliveira, M.D., Ph.D.¹, Claudia G Petersen, Ph.D.¹, Ana Lucia Mauri, B.Sc.¹, Laura D Vagnini, B.Sc.², Adriana Renzi, Ph.D.², Bruna Petersen, B.Sc.¹, Mariana Mattila, B.Sc.³, Camila Zamara, R.N.³, Felipe Dieamant, M.D.¹, Ricardo L R Baruffi, M.D.¹ and Jose G Franco Jr., M.D., Ph.D.¹, ¹Center for Human Reproduction Prof. Franco Jr/ Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ²Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ³Center for Human Reproduction Prof. Franco Jr, Ribeirao Preto, Brazil

11:45 AM **O-41 NON-INVASIVE PRENATAL TESTING HAS ALTERED POSITIVE PREDICTIVE VALUE FOLLOWING TRANSFER OF A EUPLOID BLASTOCYST.** Amber M Klimczak, MD, Christine V Whitehead, BSN, RN, Shelby A Neal, MD, Ashley W Tiegs, MD, Emily K Osman, MD, Brent M Hanson, MD, Julia G Kim, MD, MPH, Marie D Werner, MD, Jason M Franasiak, MD and Richard Thomas Scott Jr., MD, IVI-RMA New Jersey, Basking Ridge, NJ

12:00 PM **O-42 SONOGRAPHIC ABNORMALITIES IN PREGNANCIES CONCEIVED FOLLOWING IVF WITH AND WITHOUT PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY.** Carrie Riestenberg, MD¹, Kimberly Moyle, MD², Neil Silverman, MD³, Lawrence D Platt, MD³, Christina Shih-chi Han, MD³ and Molly M Quinn, MD¹, ¹University of California, Los Angeles, Los Angeles, CA, ²Cedars-Sinai Medical Center, Los Angeles, CA, ³Center for Fetal Medicine and Women's Ultrasound, Los Angeles, CA

SUBSEQUENT PREGNANCY OUTCOMES BETWEEN ASIAN AND WHITE PATIENTS.

David Huang, MD¹, Eleni A Greenwood, MD, MSc¹, Phil Marsh, BS¹, Andrew Runge, BS¹, Marcelle I Cedars, MD² and Mitchell P Rosen, MD, HCLD¹, ¹University of California San Francisco, San Francisco, CA, ²University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

11:00 AM **O-44 INTERSECTION OF SEXUALLY TRANSMITTED INFECTIONS AND SUBSTANCE USE AMONG LOW-INCOME MINORITY WOMEN: ROUTINE CARE AS A CRITICAL POINT FOR REDUCING REPRODUCTIVE HEALTH DISPARITIES.** Tyler McClung, BS, MS¹, Morgan Snow, BA¹, Chrystal G Thomas, BS, MMS², Jamie Perin, PhD², Charlotte Gaydos, DrPH² and Maria Trent, MD, MPH², ¹Johns Hopkins University, Baltimore, MD, ²Johns Hopkins School of Medicine, Baltimore, MD

11:15 AM **O-45 ANTI-MÜLLERIAN HORMONE (AMH) TRAJECTORIES IN REPRODUCTIVE AGED AFRICAN-AMERICAN WOMEN: FINDINGS FROM THE STUDY OF OVARIAN AGING AND RESERVE (SOAR).** Emma Giuliani, MD¹, Anca M Tilea, MPH², Veronica Berrocal, PhD², Mercedes Carnethon, PhD³, Lia A. Bernardi, MD⁴, Lisa M. Neff, MD⁵ and Erica E Marsh, MD¹, ¹Reproductive Endocrinology and Infertility, University of Michigan, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI, ³Northwestern University, Chicago, IL, ⁴Reproductive Endocrinology and Infertility, Northwestern University, Chicago, IL, ⁵Endocrinology, Metabolism, and Molecular Medicine, Northwestern University, Chicago, IL

11:30 AM **O-46 PERSISTENT WIDENING IN RACIAL DISPARITIES BETWEEN BLACK AND WHITE WOMEN UNDERGOING ART OVER THE LAST 10 YEARS.** Alexander Kotlyar, MD¹, David B. Seifer, MD², Burcin Simsek, Ph.D.³ and Ethan

HEALTH DISPARITIES

Moderators: Tia Jackson-Bey and Qiwei Yang

10:45 AM **O-43 COMPARISON OF EUPLOID RATES VIA PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) AND**



ORAL ABSTRACTS

Wantman, MBA⁴, ¹Yale Fertility Center/ Yale University, New Haven, CT, ²Yale University, New Haven, CT, ³University of Pittsburgh, Pittsburgh, PA, ⁴Redshift Technologies, Inc., New York, NY

11:45 AM **O-47 SOUTH ASIAN WOMEN HAVE POORER IVF OUTCOMES DESPITE BEING YOUNGER AND HAVING BETTER OVARIAN RESERVE COMPARED TO CAUCASIANS.** Fady I Sharara, M.D., Kaci D Rogers, MS and Megan Goodwin, MS, Virginia Center for Reproductive Medicine, Reston, VA

12:00 PM **O-48 REGIONAL DISPARITIES IN ASSISTED REPRODUCTIVE TECHNOLOGY ACCESS TO CARE: EMPLOYING MODERN TECHNOLOGY TO CLOSE THE GAP.** Sasha Mikhael, MD/MS¹, Anna Gaidis, MD², Hannah N Smith, BS³ and Larisa Gavrilova-Jordan, MD², ¹Medical College of Georgia at Augusta University, Augusta, GA, ²Medical College of Georgia at Augusta University, Augusta, GA, ³Augusta University, August, GA

Baltimore, MD, ³University of Utah School of Medicine, Salt Lake City, UT

11:15 AM **O-51 CANCER TREATMENT IS ASSOCIATED WITH A MEASURABLE DECREASE IN LIVE BIRTHS IN A LARGE, POPULATION-BASED STUDY.** Deepika Garg, MD¹, Huong Dieu Meeks, PhD¹, Erica Johnstone, MD¹, Alexander W Pastuszak, MD, PhD², Sarah L Berga, MD², Ken R Smith, PhD¹, James Hotaling, MD² and Joseph M Letourneau, MD¹, ¹University of Utah, Salt Lake City, UT, ²University of Utah School of Medicine, Salt Lake City, UT

11:30 AM **O-52 PREGNANCY OUTCOMES AMONG CANCER SURVIVORS: A POPULATION-BASED ANALYSIS.** Deepika Garg, MD¹, Huong Dieu Meeks, PhD¹, Erica Johnstone, MD¹, Alexander W Pastuszak, MD, PhD², Sarah L Berga, MD², Ken R Smith, PhD¹, James Hotaling, MD² and Joseph M Letourneau, MD¹, ¹University of Utah, Salt Lake City, UT, ²University of Utah School of Medicine, Salt Lake City, UT

11:45 AM **O-53 STIMULATION OF THE OVARIES IN WOMEN WITH BREAST CANCER UNDERGOING FERTILITY PRESERVATION: ALTERNATIVE VERSUS STANDARD STIMULATION PROTOCOLS.** E. M.E. Balkenende, MD¹, T. Dahhan, M.D., PhD¹, C. C.M. Beerendonk, M.D. PhD², K. Fleischer, MD, PhD², A. M.E. Bos, M.D., PhD., C. B. Lambalk, MD PhD⁴, Roelof Schats, MD PhD⁴, L. Louwé, M.D.⁵, A. E.P. Cantineau, M.D, PhD⁶, J. M.J. Smeenk, M.D. PhD⁷, J. P. de Bruin, M.D., PhD⁸, F. van der Veen, Prof. MD. PhD¹, S.C. Linn, Prof. MD. PhD⁹, M. van Wely, Dr. PhD¹ and Mariette Goddijn, Prof. Dr. MD. PhD¹, ¹Amsterdam University Medical Center, Amsterdam, Netherlands, ²Radboud UMC, Nijmegen, Netherlands, ³Amsterdam UMC, Amsterdam, Netherlands, ⁴Leiden University Medical Center, Leiden, Netherlands, ⁵UMCG, Groningen, Netherlands, ⁶ETZ,

INFERTILITY AND CANCER

Moderators: Ali Ahmadi and Pasquale Patrizio

10:45 AM **O-49 PREGNANCIES IN CANCER SURVIVORS: OVARIAN RESERVE IS A POOR PROGNOSTICATOR.** Julie A Suyama, MD, PhD¹, Katherine E Cameron, MD, MBE¹, Mary D Sammel, ScD² and Clarisa R Gracia, MD, MSCE¹, ¹Hospital of the University of Pennsylvania, Philadelphia, PA, ²Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania, Philadelphia, PA

11:00 AM **O-50 THE POTENTIAL IMPACT OF NEWER CHEMOTHERAPY REGIMENS ON FUTURE FERTILITY IN MEN AND WOMEN TREATED FOR LYMPHOMA.** Deepika Garg, MD¹, Taylor P Kohn, MD, MPhil², Alexander W Pastuszak, MD, PhD³, Joseph M Letourneau, MD¹ and James Hotaling, MD³, ¹University of Utah, Salt Lake City, UT, ²Johns Hopkins University School of Medicine,



ORAL ABSTRACTS

- 12:00 PM **O-54 DESCRIBING LIVE BIRTHS AFTER CANCER TREATMENTS: WHEN DO PATIENTS CONCEIVE AND HOW MANY CHILDREN DO THEY HAVE? A POPULATION-BASED STUDY IN THE WESTERN UNITED STATES**
 Deepika Garg, MD¹, Huong Dieu Meeks, PhD¹, Erica Johnstone, MD¹, Alexander W Pastuszak, MD, PhD², Sarah L Berga, MD², Ken R Smith, PhD¹, James Hotaling, MD³ and Joseph M Letourneau, MD¹, ¹University of Utah, Salt Lake City, UT, ²University of Utah School of Medicine, Salt Lake City, UT, ³University of Utah School of Medicine Andrology and IVF Laboratories, Salt Lake City, UT

- 11:15 AM **O-57 DECISIONAL CONFLICT AND KNOWLEDGE AMONG PATIENTS WITH VARICOCELE SEEKING TREATMENT FOR INFERTILITY.** Rajiv Jayadevan, MD¹, Arash Amighi, B.S.¹, Ali A Almuzeni, MD¹, Steven Alexander Mills, MD¹, Justin Nork, D.O.¹, Lorna Kwan, MPH¹, Matthew Pollard, M.D.¹, Sylvia I Lambrechts, MPH, MA², Sriram Eleswarapu, M.D., Ph.D.² and Jesse Mills, M.D.¹, ¹David Geffen School of Medicine at UCLA, Los Angeles, CA, ²University of California, Los Angeles, Los Angeles, CA

- 11:30 AM **O-58 SPERM EXTRACTED FROM MEN WITH OBSTRUCTIVE AZOSPERMIA VIA MINIMALLY-INVASIVE EPIDIDYMAL SPERM ASPIRATION (MIESA) RESULTS IN NON-INFERIOR IVF OUTCOMES COMPARED WITH NORMAL EJACULATED SEMEN IN COUPLES WITH UNEXPLAINED INFERTILITY.** Solomon Hayon, MD¹, Sarah M Moustafa, MD², Caitlin Boylan, BS³, Mary Peavey, MD¹ and Robert M Coward, MD¹, ¹University of North Carolina, Chapel Hill, NC, ²UNC School of Medicine, Chapel Hill, NC, ³Affiliation not provided

- 11:45 AM **O-59 GONADAL END ORGAN EFFECTS IN MALE TO FEMALE TRANSGENDER PATIENTS ON HORMONAL THERAPY.** Priyanka Beareilly, MD, Jaromir Slama, MD and Robert D. Oates, M.D., Boston University School of Medicine, Boston, MA

- 12:00 PM **O-60 THE UTILITY OF SPERM CRYOPRESERVATION AT THE TIME OF VASECTOMY REVERSAL.** Jessica A Marinaro, MD¹, Russell P Hayden, MD², Paul Shin, MD³ and Cigdem Tanrikut, MD⁴, ¹MedStar Georgetown University Hospital, Washington, DC, ²Weill Cornell Medicine, New York, NY, ³Shady Grove Fertility, Washington DC, DC, ⁴Shady Grove Fertility, Rockville, MD

MALE REPRODUCTION AND UROLOGY: TRAVELING SCHOLARS

Moderators: Michael Eisenberg and AJ Nangia

- 10:45 AM **O-55 EVALUATION OF FERTILITY PRESERVATION COUNSELING AND REFERRALS IN US CLINICAL PRACTICES: REVIEW OF ASCO'S QUALITY ONCOLOGY PRACTICE INITIATIVE (QOPI).** Taylor P Kohn, MD, MPhil¹, Premal Patel, MD², Benjamin Shiff, MD³, Jaden R Kohn, MD, MPH⁴ and Ranjith Ramasamy, M.D.², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²University of Miami Miller School of Medicine, Miami, FL, ³Section of Urology, University of Manitoba, Winnipeg, MB, Canada, ⁴Johns Hopkins University School of Medicine, Department of GYN/OB, Baltimore, MD
- 11:00 AM **O-56 LOWER TOTAL MOTILE COUNT IS ASSOCIATED WITH SMALLER HISTORIC INTERGENERATIONAL FAMILY SIZE: A PEDIGREE ANALYSIS FROM THE UTAH POPULATION DATABASE (UPDB).** Darshan P. Patel, MD¹, Huong Dieu Meeks, PhD², Alexander W Pastuszak, MD, PhD³, Ken R Smith, PhD² and James Hotaling, MD⁴, ¹University



ORAL ABSTRACTS

NUTRITION

Moderators: Sunni Mumford and Malgorzata Skaznik-Wikiel

10:45 AM **O-61 PRECONCEPTION MARIJUANA USE, ANOVULATION, AMH, AND PREGNANCY OUTCOMES.** Sunni L Mumford, PhD¹, Kerry S Flannagan, PhD¹, Jeannie G Radoc, BS¹, Torie C Plowden, MD¹, Keewan Kim, PhD¹, Alexandra C Purdue-Smithe, PhD¹, Jessica R Zolton, DO², Lindsey A Sjaarda, PhD³, Neil J Perkins, PhD¹, Josh Freeman, MPH¹, Zeina Alkhalaf, MPH¹, Victoria C Andriessen, BS¹, Robert M Silver, MD⁴ and Enrique F Schisterman, PhD¹, ¹NICHD, Bethesda, MD, ²Walter Reed National Military Medical Center, Bethesda, MD, ³Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ⁴University of Utah, Salt Lake City, UT

11:00 AM **O-62 SERUM OMEGA-3 AND OMEGA-6 FATTY ACID CONCENTRATIONS AND FECUNDITY.** Jamie Stanhiser, M.D.¹, Anne Marie Jukic, PhD² and Anne Z Steiner, MD, MPH³, ¹University of North Carolina, Chapel Hill, NC, ²National Institute of Environmental Health Sciences, Durham, NC, ³Duke University Medical Center, Durham, NC

11:15 AM **O-63 THE ROLE OF MATERNAL PRECONCEPTION VITAMIN D STATUS IN HUMAN OFFSPRING SEX RATIO.** Alexandra C Purdue-Smithe, PhD¹, Keewan Kim, PhD¹, Carrie J Nobles, PhD¹, Enrique F Schisterman, PhD¹, Karen C Schliep, PhD², Neil J Perkins, PhD¹, Lindsey A Sjaarda, PhD³, Josh Freeman, MPH¹, Sonia L Robinson, PhD⁴, Jeannie G Radoc, BS¹, James L Mills, MD, MS¹, Robert M Silver, MD² and Sunni L Mumford, PhD⁵, ¹NICHD, Bethesda, MD, ²University of Utah, Salt Lake City, UT, ³Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ⁴National Institutes of Child Health and Human Development, Bethesda, MD, ⁵National Institute of Child Health and Human Development, Bethesda, MD

11:30 AM **O-64 CAFFEINATED BEVERAGE INTAKE AND SERUM CAFFEINE METABOLITES AND RISK OF PREGNANCY LOSS.** Alexandra C Purdue-Smithe, PhD¹, Keewan Kim,

PhD¹, Enrique F Schisterman, PhD¹, Karen C Schliep, PhD², Neil J Perkins, PhD¹, Lindsey A Sjaarda, PhD³, James L Mills, MD, MS¹, Robert M Silver, MD², Victoria C Andriessen, BS¹, Zeina Alkhalaf, MPH¹, Jeannie G Radoc, BS¹ and Sunni L Mumford, PhD⁴, ¹NICHD, Bethesda, MD, ²University of Utah, Salt Lake City, UT, ³Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ⁴National Institute of Child Health and Human Development, Bethesda, MD

11:45 AM **O-65 LEPTIN IS A MEDIATOR IN THE ASSOCIATION BETWEEN PERCENT BODY FAT AND DECREASED AMH AMONG HEALTHY WOMEN.** Jasmine Aly, MD¹, Elizabeth A DeVilbiss, PhD², Sunni L Mumford, PhD², Micah J Hill, DO¹, Alan H DeCherney, MD¹, Laura Zalles, MD³, Neil J Perkins, PhD², Robert M Silver, MD⁴ and Enrique F Schisterman, PhD², ¹Program in Reproductive Endocrinology and Gynecology, NICHD, NIH, Bethesda, MD, ²National Institute of Child Health and Human Development, Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ³Cooper University Hospital, Department of Obstetrics and Gynecology, Camden, NJ, ⁴University of Utah, Salt Lake City, UT

12:00 PM **O-66 OMEGA-3 FATTY ACID SUPPLEMENTATION AND FECUNDABILITY.** Jamie Stanhiser, M.D.¹, Anne Marie Jukic, PhD² and Anne Z Steiner, MD, MPH³, ¹University of North Carolina, Chapel Hill, NC, ²National Institute of Environmental Health Sciences, Durham, NC, ³Duke University Medical Center, Durham, NC

OVARIAN STIMULATION

Moderators: Daniel Grow and Sarah Moustafa

10:45 AM **O-67 A COMPUTERIZED DECISION-SUPPORT SYSTEM FOR DAY TO DAY MANAGEMENT OF OVARIAN STIMULATION CYCLES DURING IN VITRO FERTILIZATION.** Gerard S Letterie, DO and Andrew MacDonald, MS, Seattle Reproductive Medicine, Seattle, WA



ORAL ABSTRACTS

11:00 AM **O-68 DUAL TRIGGERING OF FINAL OOCYTE MATURATION IN POOR OVARIAN RESPONDERS: A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL.**
Dalia Khalife, M.D., Johnny Awwad, M.D., HCLD, Suleiman Ghunaim, M.D., Antoine Abu-Musa, M.D., Christine Beyrouthy, MPH and Ghina Said Ghazeeri, M.D., American University of Beirut Medical Center, Beirut, Lebanon

11:15 AM **O-69 RISK OF HARM ASSOCIATED WITH THE USE OF LETROZOLE AS A FERTILITY DRUG: A SYSTEMATIC REVIEW AND META-ANALYSIS.** Jyotsna Pundir, MD¹, Chiara Achilli, MBBS², Priya Bhide, MD³, Luca Sabatini, MD⁴, Richard S. Legro, M.D.⁵, Luk Rombauts, PHD⁶, Helena Teede, PHD⁶, Javier Zamora, PHD⁷, Arri Coomarasamy, PHD⁸ and Shakila Thangaratnam, PHD⁹, ¹St Bartholomew's Hospital and Queen Mary University, London, London, United Kingdom, ²Hewitt Fertility Centre, L, Liverpool, United Kingdom, ³Homerton University Hospital NHS Foundation trust, London, United Kingdom, ⁴St. Bartholomew's Hospital, London, United Kingdom, ⁵Penn State College of Medicine, Hersey, PA, ⁶Monash University, Monash, Australia, ⁷Queen Mary University of London, London, United Kingdom, ⁸Tommy's National Centre for Miscarriage Research, Birmingham, United Kingdom, ⁹Women's Health Research Unit, Queen Mary University of London, London, United Kingdom

11:30 AM **O-70 PREMATURE LUTEINIZATION IN THE ERA OF PGT-A: EMBRYONIC REPRODUCTIVE POTENTIAL IS NOT AFFECTED BY ELEVATED PROGESTERONE LEVELS DURING OVARIAN HYPERSTIMULATION.**
Carlos Hernandez-Nieto, MD¹, Joseph A. Lee, BA¹, Tamar Alkon, MD¹, Martha Luna-Rojas, MD¹, Jeffrey Klein, M.D.¹, Alan B Copperman, MD² and Benjamin Sandler, M.D.¹, ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

11:45 AM **O-71 DETERMINING CORRELATION BETWEEN BODY MASS INDEX AND MINIMUM REQUIRED HCG DOSE WHEN USING DUAL TRIGGER WITH HCG AND GnRH AGONIST.** Lilli D Zimmerman, MD¹, Kolbe Hancock, MD¹, Nirali J Shah, MD², Chelsea Canon, MD², Alexis Melnick, MD¹ and Zev Rosenwaks, M.D.¹, ¹The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY

12:00 PM **O-72 EFFECT OF DEHYDROEPIANDROSTERONE (DHEA) SUPPLEMENTATION ON INTRACYTOPLASMIC SPERM INJECTION OUTCOME IN INFERTILE WOMEN WITH ANTICIPATED NORMO-OVARIAN RESPONSE.** Mustafa Khodry, MD¹, Hazem Ahmed, MD¹, Abd El-Naser Ali, MD¹, Sayed Taha, MD¹, Mohammed Fawzy, MD² and Ahmed M Abbas, MD³, ¹Department of Obstetrics & Gynecology, Faculty of Medicine, South Valley University, Qena, Egypt, ²Ibn-Sina and Banon IVF Centers, Sohag, Egypt, ³Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt

PREIMPLANTATION GENETIC TESTING

Moderators: Semra Kahraman and Kangpu Xu

10:45 AM **O-73 PGT FOR ANEUPLOIDY IMPROVES PERINATAL OUTCOMES COMPARED WITH FET ALONE: AN ANALYSIS OF THE 2014 AND 2015 SART DATA.** Kristin Van Heertum, MD¹, Channing Burks, MD¹, Kerry S Flannagan, PhD², Sunni L Mumford, PhD³, Alexandra C Purdue-Smithe, PhD², James Goldfarb, MD, MBA¹ and Rachel S Weinerman, MD¹, ¹University Hospitals Fertility Center/ Case Western Reserve University, Beachwood, OH, ²NICHD, Bethesda, MD, ³National Institute of Child Health and Human Development, Bethesda, MD



ORAL ABSTRACTS

11:00 AM O-74 DOES PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) HARM EMBRYOS? NO—A MULTI-CENTER, PROSPECTIVE, BLINDED, NON-SELECTION STUDY EVALUATING THE PREDICTIVE VALUE OF AN ANEUPLOID DIAGNOSIS AND IMPACT OF BIOPSY

Ashley W Tiegs, MD¹, Xin Tao, Ph.D², Christine V Whitehead, BSN, RN³, Shelby A Neal, MD⁴, Emily K Osman, MD³, Julia G Kim, MD, MPH³, Brent M Hanson, MD³, Emre Seli, M.D.³, George Patounakis, MD, PhD⁵, Jacqueline Gutmann, MD⁶, Arthur J Castelbaum, MD⁶ and Richard Thomas Scott Jr., MD³, ¹Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³IVI-RMA New Jersey, Basking Ridge, NJ, ⁴Sidney Kimmel College of Medicine, Thomas Jefferson University, Philadelphia, PA, ⁵IVI-RMA Florida, Lake Mary, FL, ⁶IVI-RMA Philadelphia, Philadelphia, PA

11:15 AM O-75 PREIMPLANTATION GENETIC TESTING (PGT) IS ASSOCIATED WITH HIGHER ODDS OF A HEALTHY LIVEBIRTH AMONG DONOR OOCYTE RECIPIENTS IN THE UNITED STATES: A 2013-2015 NATIONAL STUDY.

Cassandra Roeca, MD¹, Rachel L Johnson, MS², Nichole Carlson, PhD² and Alex J Polotsky, M.D., M.S.³, ¹University of Colorado School of Medicine, Aurora, CO, ²University of Colorado School of Public Health, Aurora, CO, ³University of Colorado, Denver, CO

11:30 AM O-76 PREGNANCY OUTCOMES FOLLOWING IN VITRO FERTILIZATION FROZEN EMBRYO TRANSFER (IVF-FET) WITH OR WITHOUT PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) IN WOMEN WITH RECURRENT PREGNANCY LOSS (RPL): A SART-CORS STUDY.

Shweta Bhatt, MD¹, Jason Roy, PhD², Sara S Morelli, MD, PhD¹ and Peter McGovern, MD³, ¹Rutgers New Jersey Medical School, Newark, NJ, ²Rutgers - Department of Biostatistics and Epidemiology, Piscataway, NJ, ³University Reproductive Associates, NJ

11:45 AM O-77 CONCURRENT PRE-IMPLANTATION GENETIC TESTING FOR SINGLE GENE DISORDERS AND ANEUPLOIDY SCREENING FROM A SINGLE TROPHECTODERM (TE) BIOPSY USING TARGETED NEXT GENERATION SEQUENCING (NGS) WITHOUT WHOLE GENOME AMPLIFICATION (WGA).

Heather Garnsey, BS, MPS¹, Chaim Jalas, N/A¹, Yiping Zhan, Ph.D², Cara Vega, BS¹, Vaidehi Jobanputra, PhD¹, Richard Thomas Scott Jr., MD³ and Xin Tao, Ph.D¹, ¹Foundation for Embryonic Competence, Basking Ridge, NJ, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³IVI-RMA New Jersey, Basking Ridge, NJ

12:00 PM O-78 MOSAIC EMBRYOS - A COMPREHENSIVE AND POWERED ANALYSIS OF CLINICAL OUTCOMES.

Manuel Viotti, PhD¹, Andrea Victor, MS², Alan Brake, MS², Santiago Munne, PhD³, Frank Barnes, PhD¹ and Christo Zouves, MD¹, ¹Zouves Foundation for Reproductive Medicine, Foster City, CA, ²Zouves Fertility Center, Foster City, CA, ³Overture Life, Madrid, Spain

REPRODUCTIVE BIOLOGY: HUMAN STUDIES

Moderators: Erica Behnke and Kimball Pomeroy

10:45 AM O-79 THE RELATIONSHIP BETWEEN CHRONOLOGIC AGE, OVARIAN RESPONSE, AND DNA METHYLATION OF WHITE BLOOD CELLS AND CUMULUS CELLS AMONG INFERTILE WOMEN UNDERGOING IVF.

Brent M Hanson, MD¹, Xin Tao, Ph.D², Yiping Zhan, Ph.D³, Timothy G Jenkins, PhD⁴, Julia G Kim, MD, MPH¹, Emily K Osman, MD¹, Ashley W Tiegs, MD¹, Shelby A Neal, MD¹, Richard Thomas Scott Jr., MD¹ and Emre Seli, M.D.¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³Foundation for Embryonic Competence, Basking Ridge, NJ, ⁴University of Utah Department of Surgery, Salt Lake City, UT



ORAL ABSTRACTS

11:00 AM **O-80 THE INCLUSION OF BLASTOMERES INTO THE INNER CELL MASS IN EARLY-STAGE HUMAN EMBRYOS DEPENDS ON THE SEQUENCE OF CELL CLEAVAGES DURING THE FOURTH DIVISION.** Junko Otsuki, Ph.D.¹, Toshiro Iwasaki, D.V. M., Ph.D.², Noritoshi Enatsu, M.D, Ph.D.², Yuya Katada, B.S.², Kohyu Furuhashi, B.S.² and Masahide Shiotani, M.D., Ph.D.², ¹Okayama University, Okayama, Japan, ²Hanabusa Womens clinic, Kobe, Japan

11:15 AM **O-81 THE EFFECT OF AGE ON BIOENERGETICS OF HUMAN GRANULOSA CELLS.** Gustavo N Cecchino, MD¹, Alberto Pacheco, PhD², Juan A Garcia-Velasco, PhD³ and Eduardo Rial, PhD⁴, ¹IVIRMA-Madrid, Madrid, Spain, ²IVI Madrid, Madrid, Spain, ³Affiliation not provided, ⁴Centro de Investigaciones Biológicas - CSIC, Madrid, Spain

11:30 AM **O-82 REPEATED IMPLANTATION FAILURE PATIENTS DISPLAYS A GREATER DELAY OF THEIR RECEPTIVITY WINDOW DIAGNOSED USING A GENOMIC TEST UNDER HRT TREATMENT COMPARED TO NATURAL CYCLES.** Delphine Haouzi, PhD¹, Frida Entezami, MD², Charlene Innocenti, Engineer¹, Alice Ferrieres-Hoa, MD¹, Chloé Baron, PhD student¹, Claire Vincens, MD³, Sophie Bringer-Deutsch, MD³, Cecile Brunet, MD³, Antoine Torre, MD, PhD⁴ and Samir Hamamah, MD, PhD⁵, ¹Inserm U1203, CHU Montpellier, St-Eloi Hospital, Montpellier, France, ²American Hospital of Paris, Neuilly-sur-Seine, France, ³ART-PGD department, Arnaud de Villeneuve Hospital, CHU Montpellier, Montpellier, France, ⁴Division of Child Health, Obstetrics & Gynecology department, University of Nottingham, Nottingham, United Kingdom, ⁵Arnaud de Villeneuve Hospital, CHU Montpellier, Montpellier, France

11:45 AM **O-83 THE ROLE OF VITAMIN D AS A PIECE OF THE UTERINE FACTOR INFERTILITY PUZZLE.** Karine Matevossian, DO¹,

Lauren Grimm, MA², Elisabeth Rosen, BS, MA², Lucas E Rasnic, BSE, MA², Jacqueline Sehring, MA², Jody M Esguerra, MA², Anisa Hussain, MA², Angeline Beltsos, MD² and Roohi Jeelani, MD², ¹Advocate Lutheran General Hospital, Park Ridge, IL, ²Vios Fertility Institute, Chicago, IL

12:00 PM **O-84 DYNAMIC DNA METHYLATION DURING TROPHOBLAST DIFFERENTIATION IN HUMAN PERI-IMPLANTATION STAGE EMBRYOS REVEALED BY SINGLE-CELL WHOLE GENOME BISULFITE SEQUENCING.** Ye Yuan, PhD¹, Jiangwen Sun, Ph.D.², Hao Ming, M.S.³, Deirdre M Logsdon, MS¹, William B Schoolcraft, MD¹, Rebecca L. Krisher, PhD¹ and Zongliang Jiang, Ph.D.³, ¹Colorado Center for Reproductive Medicine, Lone Tree, CO, ²Old Dominion University, Norfolk, VA, ³Louisiana State University, Baton Rouge, LA

REPRODUCTIVE SURGERY AND PROCEDURES

Moderators: Linnea Goodman and Zaraq Khan

10:45 AM **O-85 A SURVEY OF MICROSURGERY TRAINING AMONG UROLOGY RESIDENCY PROGRAMS.** Thomas A Masterson III, MD¹, Quinn Carroll Rainer, BS², Sirpi Nackeeran, BA¹ and Ranjith Ramasamy, M.D¹, ¹University of Miami Miller School of Medicine, Miami, FL, ²Medical Student, Miami, FL

11:00 AM **O-86 OUTCOME OF LAPAROSCOPIC ADHESIOLYSIS IN INFERTILE PATIENTS WITH PELVIC ADHESIONS FOLLOWING CESAREAN DELIVERY: A RANDOMIZED CLINICAL TRIAL.** Adel al shahat Algergawy, M.D¹, Ayman Shehata Dawood, M.D.², Hesham A. Salem, FA, M.D., M.D.³ and Ahmed alsayed Alhalwagy, M.D⁴, ¹assistant professor, Tanta, Egypt, ²Lecturer at Tanta University, Tanta, Egypt, ³Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ⁴assistant professor at Faculty of Medicine, Tanta University, Tanta, Egypt



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11:15 AM **O-87 RESULTS OF CROMOSOMAL ANALYSIS OF PRODUCTS OF CONCEPTION USING TARGETED DIRECT EMBRYO BIOPSY BY OPERATIVE HYSTEROSCOPY.**

Jean Paul Rouleau, MD¹, Roberta Vicario, MD, PhD², Linda M.A. Pirollo, MD², Manuela Costa, CNM², Frederick Naftolin, MD, PhD³, Jairo Hernandez, PhD¹ and Angela Palumbo, MD, PhD¹, ¹Centro de Asistencia a la Reproducción Humana de Canarias, La Laguna, Spain, ²Clinica Quisisana, Roma, Italy, ³Department of Obstetrics and Gynecology, New York University, New York, NY

11:30 AM **O-88 UTERUS TRANSPLANTATION - LIVING DONOR OUTCOME.**

Liza Johannesson, MD, PhD and Giuliano Testa, MD, Baylor University Medical Center, Dallas, TX

11:45 AM **O-89 PREGNANCY OUTCOMES FOLLOWING HYSTEROSCOPIC CORRECTION OF T-SHAPED UTERI.**

Shelby A Neal, MD¹, Richard Thomas Scott Jr., MD¹ and Linnea R Goodman, MD², ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²University of North Carolina, Raleigh, NC

12:00 PM **O-90 SINGLE EUPLOID FROZEN EMBRYO TRANSFER: EVALUATING IMPACT OF INTERVAL SINCE OPERATIVE HYSTEROSCOPY.**

Allison C Petrini, MD¹, Catherine W Chan, MD², Kelly McCarter, MD², Micha Thompson, BA¹, Monica Pasternak, MD¹, Nigel Pereira, MD¹ and Steven Spandorfer, M.D.¹, ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY

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ORAL ABSTRACTS

Tuesday, October 15, 2019

10:45 am - 12:15 pm

PRIZE PAPER SESSION

SCIENTIFIC CONGRESS PRIZE PAPER SESSION 2

The first six papers are candidates for the ASRM Scientific Congress Prize Paper Awards.
Six additional candidates will be presented during the Prize Paper Candidates' session on Monday.
Moderators: William Catherino and Katherine Cameron

10:45 AM **O-91** **ARTIFICIAL INTELLIGENCE ASSESSMENT OF TIME-LAPSE IMAGES CAN PREDICT WITH 77% ACCURACY WHETHER A HUMAN EMBRYO CAPABLE OF ACHIEVING A PREGNANCY WILL MISCARRY.** Rishabh Hariharan, BSc¹, Peter He, -¹, Marcos Meseguer, PhD², Marco Toschi, MSc³, Jose Celso Rocha, PhD⁴, Nikica Zaninovic, Ph.D.⁵, Jonas Malmsten, MSc⁵, Qiansheng Zhan, MSc⁵ and Cristina Hickman, PhD¹, ¹Imperial College London, London, United Kingdom, ²IVIRMA Global, Valencia, Spain, ³IVIRMA, Rome, Italy, ⁴State University of São Paulo Júlio de Mesquita Filho, Assis, Brazil, ⁵Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY

11:00 AM **O-92** **CONTRIBUTIONS TO PREMATURITY OF MATERNAL HEALTH CONDITIONS, SUBFERTILITY, AND ASSISTED REPRODUCTIVE TECHNOLOGY (ART).** Judy E Stern, PhD¹, Chia-Ling Liu, ScD², Hafsatu Diop, MD, MPH² and Howard Cabral, PhD, MPH³, ¹Dartmouth-Hitchcock, Lebanon, OR, ²MPDH, Boston, MA, ³Boston University, Boston, MA

11:15 AM **O-93** **HIGHER INCIDENCE OF POSTPARTUM COMPLICATIONS IN WOMEN WITH POLYCYSTIC OVARY SYNDROME.** Snigdha Alur-Gupta, M.D.¹, Mary Regina Boland, Ph.D.², Mary D Sammel, ScD³, Kurt T Barnhart, MD, MSCE⁴ and Anuja Dokras, M.D., Ph.D.⁵, ¹University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, ²Affiliation not provided, ³Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania,

Philadelphia, PA, ⁴Univeristiy of Pennsylvania, Philadelphia, PA, ⁵University of Pennsylvania Health System, Philadelphia, PA

11:30 AM **O-94** **DEVELOPMENTAL POTENTIAL OF ANEUPLOID HUMAN EMBRYOS BEYOND IMPLANTATION.** Marta Nasila Shahbazi, Ph.D.¹, Tianren Wang, M.D., Ph.D.², Xin Tao, Ph.D.², Li Sun, Ph.D.², Yiping Zhan, Ph.D.², Antonio Pellicer, MD, PhD³, Richard Thomas Scott Jr., MD⁴, Emre Seli, M.D.⁴ and Magdalena Zernicka-Goetz, Ph.D.¹, ¹Department of Physiology, Development and Neuroscience, Mammalian Embryo and Stem Cell Group, University of Cambridge, Cambridge, United Kingdom, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³IVIRMA ROMA, Roma, Italy, ⁴IVI-RMA New Jersey, Basking Ridge, NJ

11:45 AM **O-95** **A LIFESTYLE INTERVENTION TARGETING WOMEN WITH OBESITY AND INFERTILITY IMPROVES THEIR FERTILITY OUTCOMES, ESPECIALLY IN WOMEN WITH PCOS: A RANDOMIZED CONTROLLED TRIAL.** Matea Belan, MSc¹, Belina Carranza-Mamane, MD¹, Youssef AinMelk, MD², Marie-Hélène Pesant, MD², Karine Duval, PhD¹, Farrah Jean-Denis, MSc¹, Marie-France Langlois, MD¹, Hélène Lavoie, MD³, Guy Waddell, MD⁴ and Jean-Patrice Baillargeon, MD⁵, ¹Research Center of the Centre Hospitalier Universitaire de Sherbrooke, Sherbrooke, QC, Canada, ²Université de Sherbrooke - Department of Obstetrics and Gynecology, Sherbrooke, QC, Canada, ³Fertility Clinic Procrea, Montréal, QC, Canada, ⁴Université



ORAL ABSTRACTS

de Sherbrooke, Sherbrooke, QC,
Canada, 5Université de Sherbrooke,
Department of Medicine, Sherbrooke,
QC, Canada

12:00 PM **O-96 CONSERVATIVE SURGERY FOR
OVARIAN TORSION IN YOUNG WOMEN:
PERIOPERATIVE COMPLICATIONS
AND NATIONAL TRENDS.** Rachel S
Mandelbaum, MD, Meghan B Smith,
MD, Lynda D Roman, MD, Richard J
Paulson, MD, MS and Koji Matsuo, MD,
PhD, University of Southern California,
Los Angeles, CA

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[REPRODUCTIVE BIOLOGY: ANIMAL AND
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¹Northwestern University, Feinberg
School of Medicine, Chicago, IL,
²Northwestern University Feinberg
School of Medicine, Department of
Obstetrics and Gynecology, Division
of Reproductive Endocrinology and
Infertility, Chicago, IL, ³University of
Colorado, Department of Obstetrics
and Gynecology, Division of Family
Planning, Aurora, CO, ⁴Women
and Infants Fertility Center, Brown
University Warren Alpert Medical
School, Providence, RI

11:00 AM **O-98 HUMAN SPERM MORPHOLOGY
ANALYSIS USING SMARTPHONE
MICROSCOPY AND DEEP LEARNING.**
Prudhvi Thirumalaraju, BS¹, Manoj
Kumar Kanakasabapathy, MS¹,
Charles L Bormann, PhD², Hemanth
Kandula, BS¹, Sandeep Kota Sai
Pavan, BS¹, Divyank Yarravarapu,
BS¹ and Hadi Shafiee, PhD¹,
¹Brigham and Women's Hospital,
Harvard Medical School, Boston,
MA, ²Massachusetts General
Hospital, Harvard Medical School,
Boston, MA

11:15 AM **O-99 HAS THE MASSACHUSETTS INFERTILITY
MANDATE LIVED UP TO ITS PROMISE?**
Katherine Koniarek, MD¹, Alan S.
Penzias, M.D.² and Eli Adashi, MD³,
¹Tufts Medical Center, Boston, MA,
²Boston IVF, Waltham, MA, ³The
Warren Alpert Medical School,
Brown University, Providence, RI

ACCESS TO CARE

Moderators: Asima Ahmad and Holly Mehr

10:45 AM **O-97 CATCHING UP TO THE MANDATE: A
MYSTERY CALLER STUDY OF SOCIETY
FOR ASSISTED REPRODUCTIVE
TECHNOLOGY (SART) MEMBER
CLINICS IN STATES MANDATING
FERTILITY PRESERVATION (FP)
COVERAGE.** Emma C. Trawick,
M.D.¹, Kristin Smith, B.S.², Maryam
Guiahi, M.D., M.Sc.³, Eden Cardozo,
M.D.⁴ and Kara N. Goldman, M.D.²,

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11:30 AM **O-100** **RIGHT TO HEALTH: THE SITUATION OF ASSISTED REPRODUCTION TECHNIQUES WITH GAMETES DONATION IN ITALY.** Giulia Scaravelli, PhD, Roberto De Luca, Master degree, Roberta Spoletini, Master degree, Vincenzo Vigiliano, Master degree, Simone Bolli, high school, Simone Fiaccavento, high school, Lucia Speziale, Master degree and Anna Bertini, Master degree, Italian Assisted Reproductive Technology Register, Italian National Institute of Health, Rome, Italy

11:45 AM **O-101** **THE PRICE IS RIGHT? ANALYSIS OF PRICE TRANSPARENCY IN ASSISTED REPRODUCTION** Katherine Elise McDaniel, MD, Meghan B Smith, MD, Brittany L Klooster, MD, Rachel Blair Danis, MD, Kristin Bendikson, M.D., Richard J Paulson, MD, MS and Jacqueline Ho, MD MS, University of Southern California, Los Angeles, CA

12:00 PM **O-102** **EMERGENCY COS IN ONCOFERTILITY PRESERVATION.** Marouen Braham, Associate professor¹, Sarah Amari, Medical Degree², Khadija Feriel Kacem Berjeb, Associate professor³, Molka Bouricha, resident³, Wissal Jaafar, Medical Degree¹, Manel Hamdoun, Medical Degree⁴, Linda Debbabi, Medical Degree³, Olfa Bahri Sr., Professor⁴, Anis Fadhlaoui, Associate Professor¹ and Fethi Zhioua, Pr¹, ¹Aziza Othmana University hospital, Tunis, Tunisia, ²Gynecology, Obstetric and Reproductive Medecine Department. Aziza Othmana University Hospital, Tunis, Tunisia, ³Reproductive Medecine Laboratory. Aziza Othmana University Hospital., Tunis, Tunisia, ⁴Biochemistry Department. Aziza Othmana University hospital., Tunis, Tunisia

Riesterberg, MD¹, Anika Jagasia, BA² and Ricardo Azziz, MD, MPH³, ¹University of California, Los Angeles, Los Angeles, CA, ²University of Pennsylvania, Philadelphia, PA, ³University at Albany, SUNY, Albany, NY

11:00 AM **O-104** **SEVERE ENDOMETRIOSIS IN RHESUS MACAQUES CONSUMING A WESTERN-STYLE DIET (WSD) AND CHRONICALLY TREATED WITH ANDROGEN.** Ov D Slayden, PhD¹, Cecily V Bishop, PhD², Emily Mishler, MS³, Lauren Drew Martin, DVM³, Heather M Sidener, DVM, DACLAM³, Jon D Hennebold, PhD⁴ and Richard L Stouffer, PhD³, ¹Professor, Portland, OR, ²Oregon State, Corvallis, OR, ³Affiliation not provided, ⁴Oregon National Primate Research Center, Division of Reproductive & Developmental Sciences, Beaverton, OR

11:15 AM **O-105** **POSTPARTUM WEIGHT RETENTION IN WOMEN WITH PCOS AND CONTROLS.** IRIS TIENLYNN Lee, MD¹, Snigdha Alur-Gupta, M.D.² and Anuja Dokras, M.D., Ph.D.¹, ¹UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM, PHILADELPHIA, PA, ²University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

11:30 AM **O-106** **METABOLIC SYNDROME (MetS): FECUNDABILITY AND ADVERSE PREGNANCY OUTCOMES WITH OVULATION INDUCTION (OI) IN POLYCYSTIC OVARY SYNDROME (PCOS).** Sushila Arya, MD¹, Karl R Hansen, MD PhD¹, Richard S. Legro, M.D.², Robert A. Wild, M.D., M.P.H. Ph.D.¹ and NICHD's Reproductive Medicine Network, ¹University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma city, OK, ²Penn State College of Medicine, Hersey, PA

11:45 AM **O-107** **OXIDATIVE CAPACITY IS PRESERVED IN LIPOPOLYSACCHARIDE (LPS) TOLERANT MONONUCLEAR CELLS (MNC) OF OBESE WOMEN WITH**

ANDROGEN EXCESS

Moderators: Marla Lujan and Wendy Vitek

10:45 AM **O-103** **PREGNANCY-RELATED ECONOMIC BURDEN OF POLYCYSTIC OVARY SYNDROME (PCOS).** Carrie



ORAL ABSTRACTS

12:00 PM O-108

POLYCYSTIC OVARY SYNDROME (PCOS). Frank González, M.D.¹, Robert V. Considine, Ph.D.², Jiaping Xue, Ph.D.¹ and Anthony J. Acton Jr., B.S.², ¹University of Illinois at Chicago College of Medicine, Chicago, IL, ²Indiana University School of Medicine, Indianapolis, IN

SCREENING FOR ANDROGEN EXCESS IN WOMEN: ACCURACY OF SELF-REPORTED EXCESS BODY HAIR GROWTH AND MENSTRUAL DYSFUNCTION. Jessica L Chan, MD, MSCE¹, Marita Pall, MD, PhD¹, Uche Ezech, MD¹, Ruchi Mathur, MD¹, Erica T Wang, MD, MAS¹, Margareta D. Pisarska, MD¹ and Ricardo Azziz, MD, MPH², ¹Cedars-Sinai Medical Center, Los Angeles, CA, ²University at Albany, SUNY, Albany, NY

11:15 AM O-111

HUMAN BLASTOCYSTS DERIVED FROM MONOPRNUCLEAR ZYGOTES: A BIOLOGICAL MODEL FOR THE STUDY OF PLOIDY, EUPLOIDY, TOPOGRAPHY AND HETEROPARENTAL INHERITANCE. Noelia Grau, PhD¹, Nuria Soler, MSc², Ana González-Picazo, MSc³, Xavier Vendrell, PhD⁴, María José Escribá, PhD⁵ and Pilar Gámiz, PhD¹, ¹IVIRMA-Valencia, Valencia, Spain, ²Universidad de Valencia, Valencia, Spain, ³IVI Foundation, Valencia, Spain, ⁴Sistemas Genómicos, Paterna, Spain, ⁵IVIRMA Valencia, Valencia, Spain

11:30 AM O-112

USE OF NEXT GENERATION SEQUENCING FOR THE ANALYSIS OF IN VITRO MATURED OOCYTES AND THEIR POLAR BODIES. Marga Esbert, PhD¹, Cristina Garcia, MSc¹, Evelin E. Lara-Molina, MD², Nicolas Garrido, PhD³, Dagan Wells, PhD⁴, Emre Seli, M.D.⁵, Georgina Cutts, MSc⁴, Agustin Ballesteros, PhD¹, Javier Herreros Sr., MSc¹, Marissa Riqueros, MSc¹ and Elpidia Fragouli, PhD⁴, ¹IVI RMA Barcelona, Barcelona, Spain, ²IVI Foundation IVIRMA Global, Biomedical Research Institute La Fe, Valencia, Spain, ³IVI Foundation, IIS La Fe, Valencia, IIS, Spain, ⁴IVI RMA, Oxford, United Kingdom, ⁵IVI-RMA New Jersey, Basking Ridge, NJ

11:45 AM O-113

TIME LAPSE SELECTED ELECTIVE SINGLE EMBRYO TRANSFER IN HYALURONON ENRICHED TRANSFER MEDIUM IN PCOS IMPROVES LIVE BIRTH RATES COMPARED TO USE OF CONVENTIONAL EMBRYO TRANSFER MEDIA. A POSSIBLE ALTERNATIVE TO FREEZE-ALL CYCLES IN PCOS Sayali Kandari, MS PhD, CELLSURE BIOTECH AND RESEARCH CENTRE, Mumbai, India

12:00 PM O-114

COMPARISON OF EMBRYO SPECIFIC TIME-LAPSE DISH FOR INDIVIDUAL CULTURE VERSUS AN EMBRYO SPECIFIC DISH FOR GROUP CULTURE. Rebecca Holmes, PhD¹, Jaime Weinberg, BS², Laurie Kalaghan, BS², Brett Goode, BS², William B

ART LAB: OUTCOME PREDICTORS

Moderators: Matthew VerMilyea and John Zhang

10:45 AM O-109

THE EFFECT OF HIGH HUMIDITY ON EMBRYO CULTURE MEDIA OXIDATION. Carmela Albert, PhD¹, Raquel Del Gallego, PhD², Lucia Alegre, PhD², Zaloe ZL Larraeategui, PhD³, Julian Marcos Sr., PhD⁴, Belén Aparicio-Ruiz, PhD¹ and Marcos Meseguer, PhD⁵, ¹IVIRMA, Valencia, Spain, ²IVIRMA Global, Valencia, Spain, ³EMBRYOLOGIST, BILBAO, Spain, ⁴embryologist, Murcia, Spain, ⁵IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

11:00 AM O-110

PUTRESCINE SUPPLEMENTATION PROMOTE THE MATURATION OF OOCYTES AND IMPROVE THE QUALITY OF OOCYTES AND THE POTENTIAL OF EMBRYOS DEVELOPMENT. Wei Wu, MD¹, Lingbo Cai, PHD¹, Yuting Ling, Master¹ and Johnie Liu, PhD², ¹The First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ²Ottawa Hospital Research Institute, Ottawa, ON, Canada



ORAL ABSTRACTS

Schoolcraft, MD³ and Jason E Swain, PhD⁴, ¹CCRM Boston, Chestnut Hill, MA, ²CCRM Boston, Boston, MA, ³Colorado Center for Reproductive Medicine, Lone Tree, CO, ⁴CCRM Fertility Network, Lone Tree, CO

EARLY PREGNANCY

Moderators: Lia Bernardi and Paul Brezina

10:45 AM **O-115** **RETAINED PREGNANCY TISSUE AFTER MISCARRIAGE ASSOCIATED WITH HIGH RATE OF CHRONIC ENDOMETRITIS.** Dana B. McQueen, M.D., M.A.S., Kruti P Maniar, M.D., Anne Hutchinson, M.D., Rafael Confino, BS, Jared C Robins, MD, Lia A. Bernardi, MD and Mary Ellen Pavone, MD, MSCI, Northwestern University, Chicago, IL

11:00 AM **O-116** **IS THERE A PREDISPOSITION TO EMBRYONIC ANEUPLOIDY IN PRE-DIABETIC PATIENTS?** Baruch Abittan, M.D.¹, Hillary Pearson, M.D.², Randi H. Goldman, M.D.³, Christine Mullin, M.D.⁴, Weiwei Shan, MS PhD⁵ and Avner Hershtag, M.D.¹, ¹Northwell Fertility, Manhasset, NY, ²North Shore University Hospital, Manhasset, NY, ³Northwell Health Fertility, Zucker School of Medicine at Hofstra/ Northwell, Manhasset, NY, ⁴Northwell Fertility, ⁵Northwell Health Department of Biostatistics, New Hyde Park, NY

11:15 AM **O-117** **DIRECT CORRELATION BETWEEN B-HCG LEVELS AND TROPHECTODERM MORPHOLOGY QUALITY IN SINGLE EUPLOID EMBRYO TRANSFER CYCLES.** Carlos Hernandez-Nieto, MD¹, Joseph A. Lee, BA¹, Marlana Duke, MSc, ELD¹, Daniel E. Stein, MD², Alan B Copperman, MD², Benjamin Sandler, M.D.¹ and Tanmoy Mukherjee, MD¹, ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

11:30 AM **O-118** **PATERNAL CONTRIBUTIONS IN EARLY EMBRYONIC GENE EXPRESSION: ROLE IN EARLY PREGNANCY LOSS.**

Vidhu Dhawan, MD¹, Manoj Kumar, Ph.D¹, Neena Malhotra, MD FRCOG², Neeta Singh, MD², Vatsla Dadhwal, MD² and Rima Dada, MD, Ph.D¹, ¹All India Institute of Medical Sciences, Anatomy, New Delhi, India, ²All India Institute of Medical Sciences, Obstetrics & Gynecology, New Delhi, India

11:45 AM **O-119** **PREGNANCY VIABILITY IDENTIFIED BY EARLY SERUM HCG LEVEL MEASURED IN THE PERI-IMPLANTATION PERIOD FOLLOWING THAWED SINGLE BLASTOCYST TRANSFER.** Ankita Raman, MD¹, Angela H Liu, MD¹, Carrie E Bedient, MD², Leah A Kaye, MD³, Forest C Garner, MS² and Bruce Shapiro, M.D., Ph.D., H.C.L.D.³, ¹University of Nevada, Las Vegas, School of Medicine, Las Vegas, NV, ²Fertility Center of Las Vegas, Las Vegas, NV, ³Fertility Center of Las Vegas, Las Vegas, Nevada, NV

12:00 PM **O-120** **SEMINAL EXOSOMES PROTEOME PROFILING REVEAL IMPAIRED CELL SIGNALING AND DEFECTS IN CHROMATIN REMODELING AS PATERNAL CONTRIBUTORS IN RECURRENT PREGNANCY LOSS PATIENTS.** Luna Samanta, PhD¹, Soumya Ranjan Jena, M.Phil², Jasmine Nayak, M.Phil¹, Gayatri Mohanty, PhD¹ and Sujata Kar, MBBS MD DNB³, ¹Redox Biology Laboratory, Department of Zoology, Center of Excellence in Environment and Public Health, Ravenshaw University, Cuttack, Odisha, India, ²Redox Biology Laboratory, Center of Excellence in Environment and Public Health, Ravenshaw University, Cuttack-753003, India, Cuttack, India, ³A-32, Unit-4, Kharvel Nagar, Bhubaneswar, India

ETHICS

Moderators: Mary Samplaski and Lynn Westphal

10:45 AM **O-121** **ETHICAL AND LEGAL ANALYSIS OF ADVERTISING FOR PLANNED OOCYTE CRYOPRESERVATION.** Michelle J

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- 11:00 AM **O-122** **IVF CLINIC WEBSITES: BUYER BEWARE THE SYSTEM IS BROKEN.** May-Tal Sauerbrun-Cutler, MD¹, Emma Charlotte Brown, BA², Warren J Huber III, MD, PHD¹, Phinnara Has, MS³ and Gary N Frishman, MD⁴, ¹Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI, ²Brown University, Providence, RI, ³Division of Research Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI, ⁴Brown University; Women & Infants Hospital, Providence, RI
- 11:15 AM **O-123** **INFERTILITY IN THE DIGITAL AGE: AN OPPORTUNITY FOR REI PHYSICIANS TO COMBAT THE SPREAD OF MISINFORMATION AND FILL SUPPORT GAPS IN INFERTILITY CARE ONLINE.** Emily A Jacobs, MD and Ginny L Ryan, MD, MA, University of Iowa Carver College of Medicine, Iowa City, IA
- 11:30 AM **O-124** **ADVANCING LAWS TO PERMIT SURROGACY IN US STATES: CHALLENGES & SOLUTIONS FOR ART PROVIDERS & OTHERS.** Robert Klitzman, MD, Columbia University, NY, NY
- 11:45 AM **O-125** **EVALUATING THE SART CLINIC SUMMARY REPORTS – IS IT ONLY ABOUT THE LIVE BIRTH RATES? WHAT ABOUT THE SIGNIFICANT MORBIDITY/MORTALITY RISK FACTORS ASSOCIATED WITH MULTIPLE GESTATIONS?** Carrie Riestenberg, MD¹, Alin Lina Akopians, MD, PhD², Deborah E Johnson, MA³, Zachary Haimowitz, BS³, Hal C Danzer, MD², Mark W Surrey, MD² and Jason A Barritt, PhD³, ¹University of California, Los Angeles, Los Angeles, CA, ²Southern California Reproductive Center, Beverly Hills, CA, ³ART Reproductive Center, Beverly Hills, CA

- 12:00 PM **O-126** **INSTITUTIONAL POLICIES ON POSTHUMOUS REPRODUCTION USING OOCYTES AND EMBRYOS: PRELIMINARY RESULTS FROM A CROSS-SECTIONAL STUDY.** Emma C. Trawick, M.D.¹, Amani Sampson, B.A.², David L. Keefe, M.D.², Arthur L. Caplan, Ph.D.³, Kara N. Goldman, M.D.⁴ and Gwendolyn P. Quinn, Ph.D.², ¹Northwestern University, Feinberg School of Medicine, Chicago, IL, ²New York University School of Medicine, Department of Obstetrics and Gynecology, New York, NY, ³New York University School of Medicine, Department of Population Health, Division of Medical Ethics, New York, NY, ⁴Northwestern University Feinberg School of Medicine, Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, Chicago, IL

IMAGING AND REPRODUCTIVE MEDICINE

Moderators: Laura Detti and Laurel Stadtmauer

- 10:45 AM **O-127** **ORAL HYOSCINE BUTYL BROMIDE PLUS CERVICAL LIDOCAINE 5% CREAM IN REDUCING PAIN DURING HYSTEROSALPINGOGRAPHY.** Ahmed M Abbas, MD¹, Yehia Ali, MD², Tarek Farghaly, MD¹ and Mohamed Khalaf, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Qena, Egypt
- 11:00 AM **O-128** **THE DEVELOPMENT OF A SYSTEM TO AUTOMATICALLY EVALUATE THE NUMBER OF PRONUCLEI USING DEEP LEARNING TECHNOLOGY.** Yuta Kida, M.S.¹, Noritaka Fukunaga, Ph.D.¹, Sho Sanami, Ph.D.², Hiroyuki Watanabe, M.S.¹, Yuji Tsuzuki, M.S.², Hiroya Kitasaka, Ph.D.¹, Seiji Takeda, M.S.² and Yoshimasa Asada, M.D., Ph.D.¹, ¹Asada Ladies Clinic, Nagoya, Aichi, Japan, ²Research & Development Center, Dai Nippon Printing Co., Ltd., Kita-ku, Tokyo, Japan



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11:15 AM **O-129** **LOW ENDOMETRIAL VOLUME IS NOT ASSOCIATED WITH DIMINISHED LIVE BIRTH FOLLOWING TRANSFER OF A SINGLE THAWED EUPLOID BLASTOCYST.**

Shelby A Neal, MD¹, Richard Thomas Scott Jr., MD¹ and Linnea R Goodman, MD², ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²University of North Carolina, Raleigh, NC

11:30 AM **O-130** **COMPARISON OF SINGLETON AND TWIN PREGNANCY OUTCOMES IN WOMEN WITH A CONGENITAL UNICORNUATE UTERUS AFTER IN VITRO FERTILIZATION-EMBRYO TRANSFER.** Qingqing Wu, Bachelor's degree¹, Yan Ouyang, MD./Ph.D.², Xihong Li, MD./Ph.D.² and Pei Cai, Master³, ¹Institute of Reproductive & Stem Cell Engineering, Central South University, Changsha, China, ²Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China, ³Central South University, Changsha, China

11:45 AM **O-131** **UTERINE SUBSEPTATIONS AN INDICATION FOR SURGICAL CORRECTION IN INFERTILITY PATIENTS: A COMPARISON OF FOUR SYSTEMS.** Mary Emily Christiansen, MD¹, Irene Peregrin-Alvarez, MD¹, Robert Roman, MD², Roberto Levi D'Ancona, MD², Jennifer Gordon, MD³ and Laura Detti, MD², ¹The University of Tennessee Health and Science Center, Memphis, TN, ²University of Tennessee Health Science Center, Memphis, TN, ³UTHSC, Memphis, TN

12:00 PM **O-132** **PRE-OPERATIVE MAGNETIC RESONANCE IMAGING VERSUS ULTRASONOGRAPHY FOR PREDICTING THE OPERATIVE OUTCOMES OF ABDOMINAL OR LAPAROSCOPIC MYOMECTOMY.** Nigel Pereira, MD¹, Catherine W Chan, MD², Nirali J Shah, MD², Isaac Kligman, M.D.¹ and Zev Rosenwaks, M.D.³, ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²Weill Cornell Medicine, New

York, NY, ³The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

IVF OUTCOME PREDICTORS 1

Moderators: Brent Hanson and Bruce Shapiro

10:45 AM **O-133** **GONADOTROPIN-SPECIFIC FOLLICULAR STEROIDOGENESIS IN OVARIAN STIMULATION: EVIDENCE FROM THE MENOPUR IN GNRH ANTAGONIST SINGLE EMBRYO TRANSFER - HIGH RESPONDER (MEGASET-HR) TRIAL.** Fady I Sharara, M.D.¹, Eric D Foster, PhD², Anshul Sinha, B.Tech², Gaurang S Daftary, MD, MBA² and Patrick W Heiser, PhD², ¹Virginia Center for Reproductive Medicine, Reston, VA, ²Ferring Pharmaceuticals Inc, Parsippany, NJ

11:00 AM **O-134** **IN VITRO FERTILIZATION WITH PERSONALIZED BLASTOCYST TRANSFER VERSUS FROZEN OR FRESH BLASTOCYST TRANSFER: A MULTICENTER, RANDOMIZED CLINICAL TRIAL.** Carlos Simon, MD, PhD¹, Carlos Gomez, M.Sc.², Sergio Cabanillas, M.D., Ph.D.³, Iavor K. Vladimirov, M.D., Ph.D.⁴, Gemma Castillon, M.D., Ph.D.⁵, Juan Giles, M.D., Ph.D.³, Fazilet Kubra Boynukalin, M.D., MSc⁶, Necati Findikli, Ph.D.⁶, Israel Ortega, M.D., Ph.D.⁷, Carmen Vidal, M.D., Ph.D.⁸, Alexandra Izquierdo, M.D., Ph.D.⁹, Susana Portela, MD¹⁰, Nilo Frantz, M.D.¹¹, Sagiri Taguchi, M.D., Ph.D.¹², Elena Labarta, MD PhD¹³, Francisco Colucci Coelho, M.D., Ph.D.¹⁴, Shari Mackens, MD¹⁵, Xavier Santamaria, M.D., Ph.D.⁵, Elkin Muñoz, M.D., Ph.D.¹⁶, Saul Guillermo Barrera Sr., M.D., Ph.D.¹⁷, Manuel Fernández-Sánchez, MD, PhD¹⁸, Marcos Ferrando, M.D.¹⁹, Antonio Pellicer, M.D., Ph.D.³, Ben W Mol, M.D., Ph.D. Prof.²⁰ and Diana Valbuena, M.D., Ph.D.², ¹University of Valencia;



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Igenomix Foundation-INCLIVA, Valencia, Spain, ²Igenomix SL, Paterna, Spain, ³IVI-RMA Valencia, Valencia, Spain, ⁴SBALAGRM-Sofia, Sofia, Bulgaria, ⁵IVI-RMA Barcelona, Barcelona, Spain, ⁶Bahçeci Health Group-Fulya IVF Centre, Istanbul, Turkey, ⁷IVI-RMA Madrid, MADRID, Spain, ⁸IVIRMA Valencia, Valencia, Spain, ⁹ProcreaTec, Madrid, Spain, ¹⁰IVI Vigo, Vigo, Spain, ¹¹Nilo Frantz Reproductive Medicine, Porto Alegre, Brazil, ¹²Oak Clinic, Japan, Osaka, Japan, ¹³IVI-RMA, Valencia, Spain, ¹⁴Centro de Infertilidade e Medicina Fetal do Norte Fluminense, Campos dos Goytacazes, Brazil, ¹⁵Universitair Ziekenhuis Brussel, Jette, Belgium, ¹⁶IVI-RMA Vigo, Vigo, Spain, ¹⁷IVI-RMA Panama, Panama City, Panama, ¹⁸IVI-RMA Sevilla, Sevilla, Spain, ¹⁹IVI-RMA Bilbao, Bilbao, Spain, ²⁰Monash University, Monash Medical Centre, Department of Obstetrics and Gynecology, Melbourne, VIC, Australia

11:15 AM O-135 **ROLE OF METFORMIN IN PREVENTION OF PREMATURE LUTEINIZATION IN FRESH INTRACYTOPLASMIC SPERM INJECTION (ICSI) CYCLES: A RANDOMIZED CONTROLLED TRIAL.**

Reda S Hussein, MD¹, Ahmed F Amin, MD¹, Yulian Zhao, PhD², Hisham A. Abou-Taleb, MD, PhD¹, Ahmed M. Abdelmagied, MD¹, Osama S Abdalmageed, MD¹ and Ihab Elnashar, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN

11:30 AM O-136 **DIMINISHED OVARIAN RESERVE (DOR) IS ASSOCIATED WITH REDUCED EUPLOID RATES VIA PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) INDEPENDENT OF AGE: EVIDENCE FOR CONCOMITANT REDUCTION IN OOCYTE QUALITY WITH QUANTITY.** Eleni A Greenwood,

MD, MSc¹, Charles E McCulloch, PhD², Marcelle I Cedars, MD³ and Mitchell P Rosen, MD, HCLD², ¹University of California San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

11:45 AM O-137 **DAY 7 EUPLOID BLASTOCYSTS HAVE COMPROMISED DEVELOPMENTAL COMPETENCE AND HALF THE LIVE BIRTH RATE POTENTIAL OF DAY 5 EUPLOID BLASTOCYSTS.** Sue

McCormick, BS, Robin Smith, BS, Laura Reed, BS, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

12:00 PM O-138 **PROTOCOL MATTERS: A PROPENSITY GROUP ANALYSIS SHOWS THAT PROGESTERONE ELEVATIONS ON DAY OF TRIGGER DURING FRESH IVF-ET AFFECT LIVE BIRTH RATES DIFFERENTLY ACCORDING TO STIMULATION PROTOCOL.** Chantal

Bartels, MD¹, James Grady, PhD², Chaoran Hu, M.S.² and Grow R Daniel, MD¹, ¹Center for Advanced Reproductive Services, University of Connecticut, Farmington, CT, ²University of Connecticut, Farmington, CT

LGBTQ

Moderator: Nicole Ulrich

10:45 AM O-139 **REPRODUCTIVE FUNCTION IN A TRANSGENDER MOUSE MODEL FOLLOWING CESSATION OF TESTOSTERONE.** Molly B Moravek,

MD, MPH¹, Hadrian M Kinnear, BA¹, Vasantha Padmanabhan, MS, PhD¹ and Ariella Shikanov, PhD², ¹University of Michigan, Ann Arbor, MI, ²University of Michigan, ANN ARBOR, MI

11:00 AM O-140 **REPRODUCTIVE LIFE PLANNING AND INTEREST IN FERTILITY PRESERVATION AMONG TRANSGENDER AND GENDER NON-BINARY INDIVIDUALS.** Nina



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Vyas, MD, Alisse Singer, BA, Armen Ter-Barseganyan, MPH, Alena Kantor, BS, Chris Mann, MSW, ASW, Sylvia I Lambrechts, MPH, MA and Molly M Quinn, MD, University of California, Los Angeles, Los Angeles, CA

- 11:15 AM **O-141** **MEDICAL ASPECTS OF FERTILITY PRESERVATION (FP) FOR TRANSGENDER ADOLESCENTS AND YOUNG ADULTS (TAYAS): A SYSTEMATIC REVIEW.** Shira Baram, MD¹, Samantha Myers, B.A.², Samantha Yee, Ph.D.¹ and Clifford Lawrence Librach, MD¹, ¹CReATe Fertility Centre, Toronto, ON, Canada, ²McMaster University, Hamilton, ON, Canada

- 11:30 AM **O-142** **THE BURDEN OF FAMILY BUILDING AS A GAY MALE COUPLE: THE MAJORITY OF GAY MALE COUPLES SEEN AT A LARGE REPRODUCTIVE MEDICINE PRACTICE DESIRE A CHILD WITH EACH OF THEIR GENETICS.** Lisa Schuman, MSW¹, Spencer S Richlin, M.D.², Robin Mangieri, MA², Melissa Kelleher, MSW³, Nora Bolger, RN⁴ and Mark Leondires, M.D.², ¹Reproductive Medicine Associates of Connecticut, Norwalk, NY, ²Reproductive Medicine Associates of Connecticut, Norwalk, CT, ³Reproductive Medicine Associates of CT, Norwalk, CT, ⁴RMA of Connecticut, Norwalk, CT

- 11:45 AM **O-143** **PREGNANCY SUCCESS RATES FOR LESBIAN COUPLES UNDERGOING INTRAUTERINE INSEMINATION.** Jasmyr K Johal, MD, MSc¹, Sara J Vaughn, MD¹, Eleni A Greenwood, MD, MSc² and Lusine Aghajanova, MD PhD¹, ¹Stanford University School of Medicine, Stanford, CA, ²University of California San Francisco, San Francisco, CA

- 12:00 PM **O-144** **IMPORTANT DECISION-MAKING CONSIDERATIONS FOR SAME-SEX MALE COUPLES (SSMC) AND SINGLE MEN (SM) WHEN PURSUING ASSISTED REPRODUCTIVE TECHNOLOGIES (ART).** Shilini Hemalal, BAS, MSc Candidate¹, Samantha Yee, Ph.D.¹, Lori Ross, PhD², Mona Loutfy, MD, MPH³ and Clifford

Lawrence Librach, MD¹, ¹CReATe Fertility Centre, Toronto, ON, Canada, ²Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada, ³Women's college Hospital, Toronto, ON, Canada

MALE REPRODUCTION AND UROLOGY: CLINICAL

Moderators: Stan Honig and Jay Sandlow

- 10:45 AM **O-145** **THE PREVALENCE OF Y-CHROMOSOME MICRODELETIONS IN OLIGOZOOSPERMIC MEN: A SYSTEMATIC REVIEW AND META-ANALYSIS OF NORTH AMERICAN AND EUROPEAN STUDIES.** Taylor P Kohn, MD, MPhil¹, Jaden R Kohn, MD, MPH² and Robert M Coward, MD³, ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins University School of Medicine, Department of GYN/OB, Baltimore, MD, ³University of North Carolina, Chapel Hill, NC

- 11:00 AM **O-146** **THE EFFECT OF ADVANCING PATERNAL AGE ON PREGNANCY AND NEONATAL OUTCOMES FOLLOWING A SINGLE EUPLOID FROZEN EMBRYO TRANSFER IN A DONOR OOCYTE MODEL.** Sydney Chang, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Natan Bar-Chama, MD¹, Alan B Copperman, MD¹ and Lucky Sekhon, MD², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

- 11:15 AM **O-147** **THE EFFECT OF TETRAHYDROCANNABINOL ON TESTOSTERONE AMONG MEN IN THE UNITED STATES: RESULTS FROM THE NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY.** Richard Jacob Fantus, MD¹, Taylor P Kohn, MD, MPhil² and Ranjith Ramasamy, M.D.³, ¹University of Chicago, Chicago, IL, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³University of Miami Miller School of Medicine, Miami, FL



ORAL ABSTRACTS

11:30 AM **O-148 UTILIZING THE YO® HOME SPERM TEST NOVICE USERS OBTAINED ACCURATE RESULTS AS COMPARED TO TRAINED TECHNICIANS.** Natan Bar-Chama, MD¹, Lev Rabinovitch, PhD² and Stan Honig, MD³, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Medical Electronic Systems, Caesarea Industrial Park, Israel, ³Yale University, New Haven, CT

11:45 AM **O-149 UNDERUTILIZATION OF PRIMARY MEDICAL CARE AMONG MEN PRESENTING FOR FERTILITY EVALUATION.** Joshua A. Halpern, MD, MS¹, Anne L. Darves-Bornoz, MD², Richard Jacob Fantus, MD³, Mary Kate Keeter, MPH⁴, James Wren, MD¹, Nelson E. Bennett Jr., MD⁴ and Robert E. Brannigan, MD¹, ¹Northwestern University Feinberg School of Medicine, Chicago, IL, ²Vanderbilt University, Nashville, IL, ³University of Chicago, Chicago, IL, ⁴Northwestern University, Chicago, IL

12:00 PM **O-150 SALVAGE ULTRASOUND GUIDED TARGETED CRYOABLATION OF THE PERI-SPERMATIC CORD FOR PERSISTENT CHRONIC SCROTAL CONTENT PAIN AFTER MICROSURGICAL DENERVATION OF THE SPERMATIC CORD.** Sijo Joseph Parekattil, MD¹, Jamin Brahmbhatt, MD², Nahomy Calixte, MD², Mohamed Etafy, MD³ and Richard A Mendelson, Ph. D.⁴, ¹PUR Clinic, South Lake Hospital & University of Central Florida, Clermont, FL, ²PUR Clinic, Clermont, FL, ³PUR Clinic, Clermont, FL, ⁴Keiser University, Cooper City, FL

Slowikowska-Hilczer, MD, PhD⁷, Solange Grunenwald, MD⁸, Tim van de Griff, MD, PhD⁹, Audrey Cartault, MD¹⁰, Annette Richter-Unruh, MD, PhD¹¹, Ute Thyen, PhD¹² and Hedi Claahsen - van der Grinten, MD, PhD¹³, ¹Resident in Obstetrics and Gynecology, Nijmegen, Netherlands, ²Department of Obstetrics and Gynecology, Radboudumc, Nijmegen, Netherlands, ³Department of pediatric urology, Nijmegen, Netherlands, ⁴Department of Urology, Nijmegen, Netherlands, ⁵Department for Health Evidence, Nijmegen, Netherlands, ⁶Department of pediatric endocrinology, Paris, France, ⁷Department of Andrology and Reproductive Endocrinology, Medical University of Lodz, Lodz, Poland, ⁸Department of Endocrinology and Metabolic Disease, Toulouse, France, ⁹Vu medisch centrum, Amsterdam, Netherlands, ¹⁰Department of pediatrics, Toulouse, France, ¹¹Department of Pediatric Endocrinology, Bochum, Germany, ¹²Department of Pediatrics, Lübeck, Germany, ¹³Department of pediatric endocrinology, Radboudumc, Nijmegen, Netherlands

11:00 AM **O-152 INTIMATE PARTNER VIOLENCE AMONG POSTPARTUM WOMEN REPORTING PRIOR FERTILITY TREATMENT.** Jerrine Renee Morris, MD, MPH, Jennifer F Kawwass, MD and Heather S Hipp, MD, Emory University, Atlanta, GA

11:15 AM **O-153 IMPACT OF IN-CENTER STRESS REDUCTION MODALITIES ON SART-REPORTED LIVE BIRTH RATES.** Jessica N Tozour, MD, PhD¹, Randi H. Goldman, M.D.² and Christine Mullin, M.D.², ¹NYU Winthrop Hospital, Mineola, NY, ²Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY

MENTAL HEALTH

Moderators: Alice Domar and Sarah Holley

10:45 AM **O-151 THE IMPACT OF KLINEFELTER SYNDROME ON QUALITY OF LIFE – A MULTICENTRE STUDY.** Sebastian Franik, MSc, MD¹, Kathrin Fleischer, MD, PhD², Barbara Kortmann, MD, PhD³, Kathleen D'Hauwers, MD, PhD⁴, Joanna Int'Hout, PhD⁵, Claire Bouvattier, MD⁶, Jolanta



ORAL ABSTRACTS

11:30 AM **O-154 HOME- OR HOSPITAL -BASED MONITORING TO TIME FROZEN EMBRYO TRANSFER IN THE NATURAL CYCLE? OUTCOMES FROM A RANDOMIZED CONTROLLED TRIAL (ANTARCTICA-2)** Tjitske Zaat, MD. (MSc)¹, J. P. de Bruin, M.D., PhD², Mariette Goddijn, Prof. Dr. MD. PhD.¹, Jantien Visser, MD PhD³, Harold Verhoeve, M.D., PhD⁴, C. B. Lambalk, MD PhD⁵, Eva Groenewoud, MD PhD⁶, M. van Wely, Dr. PhD.¹ and Femke Mol, M.D., PhD⁷, ¹Amsterdam University Medical Center, Amsterdam, Netherlands, ²Jeroen Bosch Hospital, Department of Obstetrics and Gynecology, Den Bosch, Netherlands, ³Amphia Hospital, Breda, Netherlands, ⁴OLVG Oost Hospital, Department of Obstetrics and Gynecology, Amsterdam, Netherlands, ⁵Amsterdam UMC, Vrij Universiteit Amsterdam, Department of Reproductive Medicine, Amsterdam, Netherlands, ⁶NoordWest Ziekenhuisgroep, Den Helder, Netherlands, ⁷Amsterdam UMC, University of Amsterdam, Center for Reproductive Medicine, Amsterdam, Netherlands

11:45 AM **O-155 DOES UTILIZATION OF PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) ALTER DROPOUT RATES?** Denny Sakkas, PhD¹, Alice D. Domar, Ph.D.¹ and Laura E Dodge, ScD, MPH², ¹Boston IVF, Waltham, MA, ²Harvard Medical School, Boston, MA

12:00 PM **O-156 HAIR CORTISOL AS A NEW BIOMARKER OF UNDERLYING CHRONIC STRESS, ANXIETY AND DEPRESSION IN INFERTILITY: A PILOT STUDY.** Diana C. Santa-Cruz, MSc¹, Rafael Caparros-Gonzalez, PhD² and Juan A. Garcia-Velasco, MD, PhD¹, ¹IVI-RMA Madrid, Madrid, Spain, ²Universidad de Jaen, Jaen, Spain

PEDIATRIC AND ADOLESCENT GYNECOLOGY

Moderators: Beth Rackow and Alla Vash-Margita

10:45 AM **O-157 ADOLESCENTS AND ECTOPIC PREGNANCY: TRENDS IN EMERGENCY DEPARTMENT UTILIZATION BETWEEN 2006-2014.** Emma Giuliani, MD¹, Monica W Rosen, MD², Elisabeth H Quint, MD², Erica E Marsh, MD¹ and Yolanda R. Smith, MD², ¹Reproductive Endocrinology and Infertility, University of Michigan, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI

11:00 AM **O-158 PARENT COMPREHENSION FOLLOWING VIDEO-BASED EDUCATION FOR PEDIATRIC FERTILITY PRESERVATION.** Nicole Handa, BS¹, Courtney J Harris, MD², Kristine S Corkum, MD², Aminata Bangoura, BS², Shaina M Goff, -², Monica M Laronda, PhD³ and Erin E Rowell, MD⁴, ¹Northwestern University Feinberg School of Medicine, Chicago, IL, ²Department of Pediatric Surgery, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ³Stanley Manne Children's Research Institute, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ⁴Division of Pediatric Surgery, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

11:15 AM **O-159 FACTORS ASSOCIATED WITH CHOOSING FERTILITY PRESERVATION IN A PEDIATRIC, ADOLESCENT AND YOUNG ADULT POPULATION.** Megan R Sax, MD¹, Tara Schafer-Kalkhoff, MA², Brycen Ferrara, BS³, Olivia Jaworek Frias, MSN, RN, CNL³, Lesley Breech, MD³, Karen Burns, MD, MS³, Andrew C Strine, MD⁴ and Julie Sroga Rios, MD⁵, ¹University of Cincinnati and Cincinnati Children's Medical Center, Cincinnati, OH, ²Cincinnati Children's Hospital medical center, Cincinnati, OH, ³Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ⁴Division of Pediatric Urology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ⁵University of Cincinnati and Cincinnati Children's Hospital Medical Center, Cincinnati, OH



ORAL ABSTRACTS

11:30 AM **O-160 WHO SEES FERTILITY SPECIALISTS? CANCER TREATMENTS AND SEEKING FERTILITY SERVICES IN ADOLESCENTS AND YOUNG ADULTS (AYA) WITH CANCER** Christina Lam, MD¹, Alexa CO Medica, MD¹, Kelsey Pinson, MD², Ksenya Shliakhtsitsava, MD³, Brian W Whitcomb, PhD⁴ and H. Irene Su, M.D., M.S.C.E.¹, ¹University of California San Diego, La Jolla, CA, ²University of California, San Diego, La Jolla, CA, ³UT Southwestern, Dallas, TX, ⁴University of Massachusetts, Amherst, Amherst, MA

11:45 AM **O-161 BEYOND PREMATURE OVARIAN INSUFFICIENCY: CHARACTERIZING REPRODUCTIVE AGING AND RISKS FOR ACCELERATED AGING IN ADOLESCENT AND YOUNG ADULT (AYA) CANCER SURVIVORS.** Alexa CO Medica, MD¹, Christina Lam, MD², Kelsey Pinson, MD², Ksenya Shliakhtsitsava, MD³, Brian W Whitcomb, PhD⁴ and H. Irene Su, M.D., M.S.C.E.¹, ¹University of California San Diego, La Jolla, CA, ²University of California, San Diego, La Jolla, CA, ³UT Southwestern, Dallas, TX, ⁴University of Massachusetts, Amherst, Amherst, MA

12:00 PM **O-162 COMPENSATORY OVARIAN HYPERTROPHY AFTER UNILATERAL OOPHORECTOMY: EVALUATION OF OVARIAN VOLUMES IN THE PEDIATRIC AND ADOLESCENT POPULATION.** Allison C Mayhew, MD, Mina Farahzad, MD, PhD and Krista Childress, MD, Emory University School of Medicine, Atlanta, GA

11:00 AM **O-164 DOES THE OPERATOR PERFORMING THE EMBRYO TRANSFER SIGNIFICANTLY INFLUENCE THE CYCLE OUTCOME?** Federico Cirillo, MD, EFRM ESHRE/EBCOG¹, Pasquale Patrizio, M.D.², Emanuela Morengi, Prof³, Michela Baccini, Prof⁴, Elena Zannoni, MD¹, Luca Cafaro, MD¹, Camilla Ronchetti, MD¹, Annamaria Baggiani, MD¹ and Paolo Emanuele Levi Setti, MD¹, ¹Humanitas Research Hospital, Rozzano (Milan), Italy, ²Yale Fertility Center, New Haven, CT, ³Biostatistics Unit, Humanitas Research Hospital, Rozzano (MI), Italy, ⁴Department of Statistics, Computer Science, Applications, University of Florence, Florence, Italy

11:15 AM **O-165 ONLINE PATIENT REVIEWS ARE INFLUENCED BY TYPE OF PHYSICIAN-BASED INFERTILITY PRACTICE.** Ricci Allen, BA, BS, MSc¹, Shruti Agarwal, DO² and Mark P Trollice, MD³, ¹University of Central Florida College of Medicine, Orlando, FL, ²UCF College of Medicine/HCA Consortium of Greater Orlando, Kissimmee, FL, ³Fertility CARE: The IVF Center; University of Central Florida College of Medicine – Associate Professor, Winter Park, FL

11:30 AM **O-166 FREQUENCY AND CLAIMS BASIS FOR LAWSUITS OVER LOST, DISCARDED AND DAMAGED FROZEN EMBRYOS OVER A 10 YEAR PERIOD.** Gerard Letterie, MD¹ and Dov Fox, JD, DPhil, LL.M.², ¹Seattle Reproductive Medicine, San Diego, CA, ²Professor of Law and Director of the Center for Health Law Policy and Bioethics at the University of San Diego, San Diego, CA

PRACTICE MANAGEMENT

Moderators: Sara Mooney and Colin Thomas

10:45 AM **O-163 CURRENT STATUS OF REPRODUCTIVE LABORATORY PROFESSION: WORKLOAD, WELLNESS, EARNINGS AND JOB SATISFACTION.** T. Arthur Chang, PhD, HCLD, ELD¹, Ching-Chien Chang, PhD, HCLD², Liesl Nel-Themaat, PhD, HCLD³, Scott E. Smith,



ORAL ABSTRACTS

11:45 AM O-167 IMPROVED MONITORING OF HUMAN EMBRYO CULTURE CONDITIONS USING A DEEP LEARNING-DERIVED KEY PERFORMANCE INDICATOR (KPI).

Manoj Kumar Kanakasabapathy, MS¹, Prudhvi Thirumalaraju, BS¹, Raghav Gupta, BTech¹, Rohan Pooniwal, BTech², Hemanth Kandula, BS¹, Irene Souter, MD², Irene Dimitriadis, MD², Charles L Bormann, PhD² and Hadi Shafiee, PhD¹,
¹Brigham and Women's Hospital, Harvard Medical School, Boston, MA,
²Massachusetts General Hospital, Harvard Medical School, Boston, MA

12:00 PM O-168 AUTOMATED QUALITY ASSESSMENT OF INDIVIDUAL EMBRYOLOGISTS PERFORMING ICSI USING DEEP LEARNING-ENABLED FERTILIZATION AND EMBRYO GRADING TECHNOLOGY.

Prudhvi Thirumalaraju, BS¹, Manoj Kumar Kanakasabapathy, MS¹, Raghav Gupta, BTech¹, Rohan Pooniwal, BTech², Hemanth Kandula, BS¹, Irene Souter, MD², Irene Dimitriadis, MD², Charles L Bormann, PhD² and Hadi Shafiee, PhD¹,
¹Brigham and Women's Hospital, Harvard Medical School, Boston, MA,
²Massachusetts General Hospital, Harvard Medical School, Boston, MA

11:15 AM O-171 EFFECTS OF INTRAOVARIAN INJECTION OF AUTOLOGOUS PLATELET RICH PLASMA ON OVARIAN RESERVE AND IVF OUTCOMES IN WOMEN WITH PREMATURE OVARIAN INSUFFICIENCY.

Yigit Cakiroglu, M.D.¹, Ayse Saltik, M.D.¹, Aysen Yuceturk, M.D.¹, Ozge Karaosmanoglu, M.D.¹, Ahter TANAY Tayyar, M.D.², Richard Thomas Scott Jr., MD³, Bulent Tiras, M.D.⁴ and Emre Seli, M.D.³,
¹M.D., Istanbul, Turkey,
²Assoc.Prof., Istanbul, Turkey,
³IVI-RMA New Jersey, Basking Ridge, NJ,
⁴Prof.,Acibadem Maslak Hospital Assisted Reproductive Techniques Unit,, Istanbul, Turkey

11:30 AM O-172 ENDOMETRIAL RECEPTIVITY ANALYSIS DOES NOT INCREASE LIVE BIRTH RATES IN FIRST FROZEN EMBRYO TRANSFER WITH A EUPLOID BLASTOCYST.

Deborah A Lee, M.D., M.S.¹, Kaylen Silverberg, MD¹, Alicia Picou, M.S.², Hongyu Miao, Ph.D.³, Christina M Garcia, B.S.¹ and Anthony M Propst, M.D.¹,
¹Texas Fertility Center, Austin, TX,
²Ovation Fertility, Austin, TX,
³School of Public Health, University of Texas Health Science Center at Houston, Houston, TX

11:45 AM O-173 SAFETY OF OIL-BASED CONTRAST MEDIUM FOR HYSTEROSALPINGOGRAPHY: A SYSTEMATIC REVIEW.

Inez Roest, BSc¹, Nienke van Welie, M.D.², Velja Mijatovic, M.D., PhD², Kim Dreyer, M.D., PhD², Carolien A.M. Koks, M.D., PhD¹ and Ben W Mol, M.D., Ph.D. Prof.³,
¹Department of Reproductive Medicine, Maxima Medical Center, Eindhoven/Veldhoven, Veldhoven, Netherlands,
²Department of Reproductive

PROCEDURES AND TECHNIQUES

Moderators: Amy Jones and Jason Swain

10:45 AM O-169 EMBRYO TRANSFER MANEUVERS AND MANIPULATIONS – THE EFFECT ON IN VITRO FERTILIZATION (IVF) OUTCOMES.

Briana O'Leary, MD¹, Andrea Lanes, PhD¹, Ann M Thomas, PhD², Elizabeth S Ginsburg, MD² and Malinda S Lee, MD, MBA¹,
¹Brigham and Women's Hospital, Boston, MA,
²Brigham & Women's Hospital, Boston, MA

11:00 AM O-170 MINIMALLY INVASIVE UTERINE ASPIRATION 24 HOURS AHEAD OF EMBRYO TRANSFER CHARACTERIZES THE COMPROMISED RIF UTERINE MICROENVIRONMENT AND IS



ORAL ABSTRACTS

- 12:00 PM **O-174 NATIONAL TRENDS IN EMBRYO TRANSFER TRAINING.** Dana B. McQueen, M.D., M.A.S., Jared C Robins, MD and Eve C. Feinberg, M.D., Northwestern University, Chicago, IL
- Medicine, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, Netherlands, ³Monash University, Monash Medical Centre, Department of Obstetrics and Gynecology, Melbourne, VIC, Australia

- 11:30 AM **O-178 SAFE AND EFFICIENT DETECTION OF EGG MATURITY WITHOUT CUMULUS CELL REMOVAL BY NON-INVASIVE TOMOGRAPHY.** Rebecca L. Krisher, PhD¹, Deirdre M Logsdon, MS¹, Benjamin B Goheen, BS¹, Sandeep K Rajput, PhD¹, Travis A. Morgan, MBA², William B Schoolcraft, MD¹, Ran An, PhD² and Brian A Levine, MD³, ¹Colorado Center for Reproductive Medicine, Lone Tree, CO, ²Animated Dynamics, Inc., Indianapolis, IN, ³CCRM NY, New York, NY
- and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

- 11:45 AM **O-179 THE PLASMINOGEN ACTIVATOR SYSTEM IN THE PRIMATE ENDOMETRIUM DURING THE OVARIAN CYCLE AND MENSTRUATION.** Reem Sabouni, MD¹, Esra Demirel, MD² and David F Archer, MD³, ¹EVMS/ Jones Institute for Reproductive Medicine, Norfolk, VA, ²North Shore University Hospital & Long Island Jewish Medical Center, Manhasset, NY, ³Eastern Virginia Medical School, Norfolk, VA

- 12:00 PM **O-180 THE ROLE OF GLYPHOSATE IN INFERTILITY: THE MECHANISTIC LINK.** Charalampos Chatzicharalampous, MD, PhD, Zeina A Yahfoufi, BS, David Bai, BS, Awoniyi Olumide Awonuga, MD and Husam Abu-Soud, PhD, Wayne State University, Detroit, MI

- 10:45 AM **O-175 HIGH-FAT DIET CAUSES DYSREGULATION OF OVARIAN ENDOTHELIN-2 EXPRESSION ACROSS THE ESTROUS CYCLE.** Natalie M Hohos, PhD, Emily M Elliott, BS and Malgorzata E Skaznik-Wikiel, MD, UNIVERSITY OF COLORADO - ANSCHUTZ MEDICAL CAMPUS, Aurora, CO
- 11:00 AM **O-176 REGULATION OF EMBRYONIC DEVELOPMENT BY PLATELET-ACTIVATING FACTOR IS MOST LIKELY VIA THE INTRINSIC APOPTOSIS PATHWAY.** Tracy Oyugi, BS¹, Lindsay Michele Grasso, BS, MS¹, Charlotte Leblang, BA, MS¹, Lauren Tyler, BS¹, Arnab Lal, na¹, Jonathan L Blalock, BS¹, Shawn Zimmerman, PhD, HCLD², Renee J. Chosed, PhD¹ and William E. Roudebush, PhD¹, ¹University of South Carolina School of Medicine Greenville, Greenville, SC, ²Vios Fertility Institute, Swansea, IL
- 11:15 AM **O-177 OOCYTE SPECIFIC TRANSCRIPTION REGULATORS, NOBOX AND FIGLA, ARE IDENTIFIED AS KEY CONTRIBUTORS TO THE DECLINE IN FECUNDITY ASSOCIATED WITH OVARIAN AGING.** Jennifer E Russ, BS, Jason C Parks, BS, Blair R McCallie, BS, Mary E Haywood, PhD, William B Schoolcraft, MD



ORAL ABSTRACTS

Wednesday, October 16, 2019

10:45 am - 12:15 pm

ORAL ABSTRACT SESSION

[ART LAB: TECHNOLOGY](#)

[ENDOMETRIOSIS](#)

[FEMALE REPRODUCTION](#)

[FERTILITY PRESERVATION](#)

[FIBROIDS](#)

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[REPRODUCTIVE ENDOCRINOLOGY](#)

[REPRODUCTIVE IMMUNOLOGY](#)

[PARENTAL AGING](#)

[LATE-BREAKING](#)

ART LAB: TECHNOLOGY

Moderators: Gerard Celia and Brad Milette

10:45 AM **O-181** **SHORTER TELOMERE LENGTH OF WHITE BLOOD CELLS IS ASSOCIATED WITH HIGHER RATES OF ANEUPLOIDY IN WOMEN UNDERGOING IN VITRO FERTILIZATION.** Brent M Hanson, MD¹, Xin Tao, Ph.D², Yiping Zhan, Ph.D³, Julia G Kim, MD, MPH¹, Emily K Osman, MD¹, Ashley W Tiegs, MD¹, Shelby A Neal, MD¹, Richard Thomas Scott Jr., MD¹ and Emre Seli, M.D.¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³Foundation for Embryonic Competence, Basking Ridge, NJ

11:00 AM **O-182** **NON-INVASIVE OOCYTE SELECTION INCREASES CLINICAL PREGNANCY RATE: A PROSPECTIVE STUDY OF 108 PATIENTS.** Inge Van Vaerenbergh, PhD¹, Tom Adriaenssens, MSc¹, Nazli Akin, MSc¹, Wim Coucke, PhD², Ileana Mateizel, PhD³, Greta Verheyen, PhD³, Elien Van Hecke,

MSc⁴, André Rosenthal, Prof.⁴ and Johan Smits, MD, PhD, Prof.¹, ¹Follicle Biology Laboratory, Vrije Universiteit Brussel, Brussels, Belgium, ²Quality of Laboratories, Sciensano, Brussels, Belgium, ³Centre for Reproductive Medicine, UZ Brussel, Brussels, Belgium, ⁴Fertiga, Leede, Belgium

11:15 AM **O-183** **mtDNA CONTENT IS NOT ASSOCIATED WITH EMBRYONIC REPRODUCTIVE COMPETENCE.** Richard Scott III, B.S.¹, Li Sun, Ph.D², Yiping Zhan, Ph.D³, Diego Marin, M.S.⁴, Xin Tao, Ph.D² and Emre Seli, M.D.⁴, ¹Yale School of Medicine, New Haven, CT, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³Foundation for Embryonic Competence, Basking Ridge, NJ, ⁴IVI-RMA New Jersey, Basking Ridge, NJ

11:30 AM **O-184** **IS THERE ANY ROOM TO IMPROVE EMBRYO SELECTION? ARTIFICIAL INTELLIGENCE TECHNOLOGY APPLIED FOR IVE BIRTH PREDICTION ON BLASTOCYSTS** Marcos Meseguer, PhD¹, Cristina Hickman, PhD², Lorena Bori Arnal, PhD³, Lucia Alegre, PhD³, Marco Toschi, MSc⁴, Raquel Del Gallego, PhD³ and Jose Celso Rocha, PhD⁵, ¹IVIRMA Global, Valencia, Spain, Tel Aviv, Israel, ²Imperial College London, London, United Kingdom, ³IVIRMA Global, Valencia, Spain, ⁴IVIRMA, Rome, Italy, ⁵State University of São Paulo Júlio de Mesquita Filho, Assis, Brazil

11:45 AM **O-185** **A DEEP LEARNING FRAMEWORK OUTPERFORMS EMBRYOLOGISTS IN SELECTING DAY 5 EUPLOID BLASTOCYSTS WITH THE HIGHEST IMPLANTATION POTENTIAL.** Eduardo Hariton, MD, MBA¹, Irene Dimitriadis, MD¹, Manoj Kumar Kanakasabapathy, MS², Prudhvi Thirumalaraju, BS², Raghav Gupta, BTech², Rohan Pooniwal, BTech¹,



ORAL ABSTRACTS

Irene Souter, MD¹, Sarah T Rice, MS¹, Pragati Bhowmick, MD¹, Leslie B Ramirez, PhD³, Carol Lynn Curchoe, PhD, TS (ABB)⁴, Jason E Swain, PhD⁵, Lynn M Boehnlein, BS⁶, Charles L Bormann, PhD¹ and Hadi Shafiee, PhD², ¹Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ³Extend Fertility, New York, NY, ⁴San Diego Fertility Center, San Diego, CA, ⁵CCRM Fertility Network, Lone Tree, CO, ⁶Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology, University of Wisconsin, Madison, WI

12:00 PM O-186 THE ASSOCIATION BETWEEN RAPIDLY DIVIDING EMBRYOS AND EMBRYONIC EUPLOIDY DETECTED VIA NEXT GENERATION SEQUENCING (NGS).

Jenna Friedenthal, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Lawrence Grunfeld, MD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

11:00 AM O-188 **PLATELETS DRIVE FIBROGENESIS THROUGH INDUCTION OF ENDOTHELIAL-MESEMCHYMAL TRANSITION (ENDOMT) IN ENDOMETRIOSIS.** Xishi Liu, MD, PhD, Dingmin Yan, MD and Sun-Wei Guo, PhD, Shanghai Obstetrics and Gynecology Hospital, Fudan University, Shanghai, China

11:15 AM O-189 **SOMATIC CANCER DRIVER MUTATIONS IN ENDOMETRIOSIS LESIONS CONTRIBUTE TO SECONDARY CANCER RISK.** Kenneth Ward, MD¹, Rakesh Chettier, MS², Hans M Albertsen, PhD², Terry Morgan, MD, PhD³ and Todd Williams, MD³, ¹Predictive Laboratories Inc, Salt Lake City, UT, ²Juneau Biosciences, LLC, Salt Lake City, UT, ³Oregon Health Sciences University, Portland, OR

11:30 AM O-190 **CYTOSKELETAL AND EXTRA CELLULAR MATRIX GENES ARE KEY CONTRIBUTORS IN THE PATHOGENESIS OF ENDOMETRIOSIS.** Hans M Albertsen, PhD, Rakesh Chettier, MS and Kenneth Ward, MD, Juneau Biosciences, LLC, Salt Lake City, UT

11:45 AM O-191 **ENDOMETRIOSIS DOES NOT IMPACT LIVE BIRTH RATES IN FROZEN EMBRYO TRANSFER (FET) OF EUPLOID BLASTOCYSTS.** Lauren A Bishop, MD¹, Kate Devine, MD², Justin C Gunn, BS³, Eric A Widra, M.D.⁴, Rhiana D. Saunders, MD⁵, Alan H Decherney, MD⁶, Breonna Slocum, MD⁷ and Micah J Hill, DO⁸, ¹NIH, Bethesda, MD, ²Shady Grove Fertility, Washington D.C., DC, ³F. Edward Hébert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, ⁴SG Fertility, Washington, DC, ⁵Walter Reed National Military Medical Center, Bethesda, MD, ⁶Eunice Kennedy Shriver National Institute of Child Health and Human Development,

ENDOMETRIOSIS

Moderators: Steven Young and Katherine Burns

10:45 AM O-187 CORRELATION BETWEEN FOLLICULAR LEVELS OF INTERLEUKIN 6 (IL-6) AND ANTI-MULLERIAN HORMONE (AMH) AND ICSI OUTCOME IN WOMEN WITH PROVEN ENDOMETRIOSIS.

Khadija Fériel Kacem Berjeb, Associate Professor¹, Marouen Braham, Associate professor², Cirine BEN Massaoud, Research Master's Degree in Biomedical Sciences³, Manel Hamdoun, Medical Degree⁴, Asma Chaabene, Bachelor's degree in medical biology⁵, Anis Fadhlou, Associate Professor², Olfa Bahri Sr., Professor⁴ and Fethi Zhioua, Pr², ¹Aziza Othmana Hospital, Tunis, Tunisia, ²Aziza Othmana University hospital, Tunis, Tunisia, ³Aziza Othmana hospital,



ORAL ABSTRACTS

- 12:00 PM **O-192** **NON-INVASIVE DIAGNOSIS OF ENDOMETRIOSIS: USING MACHINE LEARNING INSTEAD OF THE OPERATING ROOM.** Kathryn L Shaia, MD, MHA¹, Chaitanya R Acharya, PSM, PhD², Stephanie Smeltzer, MD¹, Herbert K Lyerly, MD² and Kelly S. Acharya, MD¹, ¹Division of Reproductive Endocrinology and Infertility, Duke University Medical Center, Durham, NC, ²Duke Center for Applied Therapeutics, Department of Surgery, Durham, NC
- Bethesda, MD, ⁷Medstar Georgetown University/Washington Hospital Center, Washington, DC, ⁸National Institute of Child Health and Human Development, NIH, Bethesda, MD
- 11:15 AM **O-195** **REPRODUCTIVE OUTCOMES FOLLOWING A RUPTURED ECTOPIC PREGNANCY.** Barry E Perlman, DO¹, Kavitha Krishnamoorthy, MD¹, Ruchi Karsalia, BS² and Debra Heller, MD¹, ¹Rutgers New Jersey Medical School, Newark, NJ, ²Rutgers-New Jersey Medical School, Newark, NJ
- 11:30 AM **O-196** **PROGESTIN THERAPY FOR WOMEN WITH COMPLEX ATYPICAL HYPERPLASIA: LEVONORGESTREL INTRAUTERINE DEVICE VERSUS SYSTEMIC THERAPY.** Rachel S Mandelbaum, MD, Marcia A Ciccone, MD, David J Nusbaum, BS, Heena Purswani, MD, Elise B. Morocco, MD, Christina E Dancz, MD, Begum Ozel, MD, Lynda D Roman, MD, Mahdi Khoshchreh, MD, MS, Meghan B Smith, MD, Richard J Paulson, MD, MS and Koji Matsuo, MD, PhD, University of Southern California, Los Angeles, CA
- 11:45 AM **O-197** **PRECONCEPTION A1c AND TIME TO PREGNANCY, PREGNANCY LOSS, AND LIVE BIRTH.** Jessica R Zolton, DO¹, Kerry S Flannagan, PhD¹, Sunni L Mumford, PhD¹, Lindsey A Sjaarda, PhD¹, Jeannie G Radoc, BS¹, Samrawit F Yisahak, PhD¹, Neil J Perkins, PhD¹, Keewan Kim, PhD¹, Robert M Silver, MD², Micah J Hill, DO¹, Alan H DeCherney, MD¹ and Enrique F Schisterman, PhD¹, ¹National Institute of Child Health and Human Development, NIH, Bethesda, MD, ²University of Utah, Salt Lake City, UT
- 12:00 PM **O-198** **A LONGITUDINAL ASSESSMENT OF OVARIAN RESERVE AFTER MYOMECTOMY.** Devora Aharon, MD¹, Lucky Sekhon, MD², Joseph A. Lee, BA², Mackenzie Naert, BA¹, Ahmad Kerr, MD¹, Charles Ascher-Walsh, MD¹ and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- 10:45 AM **O-193** **METABOLIC SYNDROME (MetS): FECUNDABILITY AND ADVERSE PREGNANCY OUTCOMES IN UNEXPLAINED INFERTILITY.** Sushila Arya, MD¹, Karl R Hansen, MD PhD¹, Michael P. Diamond, MD², Robert A. Wild, M.D., M.P.H. Ph.D.¹ and NICHD's Reproductive Medicine Network, ¹University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma city, OK, ²Augusta University, Augusta, GA
- 11:00 AM **O-194** **THE AROMATASE INHIBITOR, LETROZOLE: A NOVEL TREATMENT FOR ECTOPIC PREGNANCY.** Mohamed F. Mitwally, MD, FACOG¹, Walaa G. Hozayen, PhD², Kamel M. A. Hassanin, PhD³, Kamal A Abdalla, MD⁴ and Noha K. Abdalla, B.Sc.², ¹Odessa Reproductive Medicine Center, Helotes, TX, ²Biochemistry Division, Chemistry Department, Faculty of Science, Beni-Suef University, Beni-Suef, Egypt, ³Biochemistry Department, Faculty of Veterinary Medicine, Minia University, Minya, Egypt, ⁴Department of Obstetrics & Gynecology, Faculty of Medicine, Minya University, Minya, Egypt

FEMALE REPRODUCTION

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Moderators: Emily Barnard and Anate Brauer



ORAL ABSTRACTS

FERTILITY PRESERVATION

Moderators: David Cohen and Robert Coward

- 10:45 AM **O-199 HOW OPEN IS THE WINDOW OF OVARIAN FUNCTION AFTER CANCER TREATMENT?** Brian Kwan, PhD¹, Shaylyn S Stark, MPH¹, Mary D Sammel, ScD², Brian W Whitcomb, PhD³, Andrew C Dietz, MD, MSCR⁴, Elena Martinez, PhD⁵, Loki Natarajan, PhD⁵ and H. Irene Su, M.D., M.S.C.E.¹, ¹University of California San Diego, La Jolla, CA, ²UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM, PHILADELPHIA, CA, ³University of Massachusetts, Amherst, Amherst, MA, ⁴University of California San Diego Moores Cancer Center, San Diego, CA, ⁵University of California, San Diego, Family and Preventive Medicine and Public Health, La Jolla, CA
- 11:00 AM **O-200 IN SEARCH OF THE CRYSTAL BALL - HOW MANY EGGS TO A LIVE BIRTH? A 2-STEP PREDICTION MODEL FOR EGG FREEZING COUNSELING BASED ON INDIVIDUAL PATIENT AND CENTER DATA** Serena H Chen, M.D.¹, Yajing Angela Xie, PhD², Natalie A Cekleniak, MD¹, Debba A Keegan, MD¹ and Mylene WM Yao, MD², ¹Division of Reproductive Medicine, IRMS at St Barnabas, Livingston, NJ, ²Univfy Inc., Los Altos, CA
- 11:15 AM **O-201 CHEMOTHERAPY CAUSES PRIMORDIAL FOLLICLE DEATH IN THE HUMAN OVARY VIA MULTIPLE APOPTOTIC PATHWAYS AND NOT BY "BURN OUT".** Shiny Titus, Ph.D. and Kutluk H Oktay, M.D., Ph.D., Yale University School of Medicine, New Haven, CT
- 11:30 AM **O-202 METFORMIN: A NOVEL OPTION OF FERTILITY PRESERVATION DURING CYCLOPHOSPHAMIDE-CONTAINING CHEMOTHERAPY.** Chu-Chun Huang, MD¹, Mei-Jou Chen, MD, PhD², Shee-Uan Chen, MD, PhD¹, Hong-Nerng Ho, MD, PhD³ and Yu-Shih Yang, MD, PhD⁴, ¹Department of Obstetrics and Gynecology, National Taiwan

University Hospital, Taipei, Taiwan, ²National Taiwan University Livia Shangyu Wan Scholar, Taipei, Taiwan, ³Taipei Medical University, Taipei, Taiwan, ⁴Department of Obstetrics and Gynecology, Fu Jen Catholic University Hospital, New Taipei, Taiwan

- 11:45 AM **O-203 WORLD WIDE UPDATE: RESULTS WITH CRYOPRESERVED OVARIAN TISSUE TRANSPLANT.** Sherman Silber, MD¹, Yuting Fan, M.D.² and Sierra Goldsmith, B.S.¹, ¹Infertility Center of St. Louis, Chesterfield, MO, ²University of Michigan, Ann Arbor, MI
- 12:00 PM **O-204 ARE GENDER DYSPHORIA PATIENTS COUNSELED ON FERTILITY PRESERVATION PRIOR TO INITIATING HORMONAL THERAPY?** Ross G Everett, MD MPH, Bryce A Toburen, BA, Kaylee M Luck, BS, Johnathan Doolittle, MD and Jay I Sandlow, MD, Medical College of Wisconsin, Milwaukee, WI

FIBROIDS

Moderators: Bradley Hurst and Zaraq Khan

- 10:45 AM **O-205 EFFECT OF FIBROID LOCATION AND SIZE ON EFFICACY OF ELAGOLIX: RESULTS FROM PHASE 3 CLINICAL TRIALS.** Ayman Al-Hendy, MD PhD¹, James Simon, MD², Sandra M Hurtado, MD³, Linda D Bradley, MD⁴, Charlotte D Owens, MD⁵, Ran Liu, PhD⁵, Kurt T Barnhart, MD, MSCE⁶ and Veronica Gillispie, MD⁷, ¹University of Illinois College of Medicine, Chicago, IL, ²IntimMedicine Specialists, Washington DC, ³The Woman's Hospital of Texas Clinical Research Center, Houston, TX, ⁴Cleveland Clinic, Cleveland, OH, ⁵AbbVie, Inc., North Chicago, IL, ⁶University of Pennsylvania, Philadelphia, PA, ⁷Ochsner Baptist Hospital, New Orleans, LA
- 11:00 AM **O-206 SUBLINGUAL MISOPROSTOL 400 VS. 200 MCG FOR REDUCING BLOOD LOSS DURING ABDOMINAL MYOMECTOMY: A RANDOMIZED**



ORAL ABSTRACTS

DOUBLE-BLINDED CLINICAL TRIAL

Ahmed M Abbas, MD¹, Hossam Ramdan, MSc², Shymaa Ali, MSc³, Yehia Ali, MD⁴ and Mohammed Khairy Ali, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Aswan University, Aswan, Egypt, ³Department of Obstetrics and Gynecology, Faculty of Medicine, Suez University, Suez, Egypt, ⁴Department of Obstetrics and Gynecology, Faculty of Medicine, Qena, Egypt

Valencia, Spain, ⁵IVI Foundation Innovation - Reproductive Medicine IIS La Fe, Valencia, Spain

11:45 AM O-209 MULTI-OMIC ANALYSIS OF UTERINE LEIOMYOMAS IN AFRICAN AMERICANS AND CAUCASIANS: INSIGHTS INTO HEALTH DISPARITY.

George L. Maxwell, MD¹, Christopher Tarney, MD², Nicholas Bateman, PhD³, Anthony R Soltis, PhD⁴, Brian L Hood, PhD², Clifton L Dalgard, PhD⁴, Matthew Wilkerson, PhD⁵, Kathleen M Darcy, PhD², Yovanni Casablanca, MD², Ayman Al-Hendy, MD PhD⁶ and Thomas Conrads, PhD², ¹Department of Obstetrics and Gynecology, Inova Fairfax Hospital, Falls Church, VA, ²Gynecologic Cancer Center of Excellence, Murtha Cancer Center Research Program, Uniformed Services University of the Health Science, Henry M Jackson FDN, Bethesda, MD, ³Gynecologic Cancer Center of Excellence, Murtha Cancer Center Research Program, Uniformed Services University of the Health Science, Henry M Jackson FDN, Annandale, VA, ⁴The American Genome Center, Uniformed Services University, Bethesda, MD, ⁵The American Genome Center, Bethesda, MD, ⁶University of Illinois College of Medicine, Chicago, IL

12:00 PM O-210 PREOPERATIVE TREATMENT WITH LEUPROLIDE ACETATE AND ULIPRISTAL ACETATE BEFORE OUTPATIENT HYSTEROSCOPIC MYOMECTOMY: PROSPECTIVE COMPARATIVE STUDY.

Simone Ferrero, MD, PhD¹, Fabio Barra, MD¹, Umberto Leone Roberti Maggiore, MD, PhD², Valerio Gaetano Vellone, MD, PhD³ and Carolina Scala, MD⁴, ¹DINOGLI, University of Genova, Genova, Italy, ²Department of Gynecologic Oncology, IRCCS National Cancer Institute, Milan, Italy, ³DISC, University of Genova, Genova, Italy, ⁴Istituto G. Gaslini, Genova, Italy

11:15 AM O-207 URINARY PARABEN CONCENTRATIONS AND INCIDENCE OF UTERINE LEIOMYOMATA: A PROSPECTIVE ULTRASOUND STUDY.

Lauren A Wise, Sc.D.¹, Olivia R Orta, Ph.D.¹, Traci N Bethea, Ph.D., M.P.A.², Amelia K Wesselink, Ph.D.¹, Jennifer Weuve, Sc.D.¹, Michael McClean, Sc.D.¹, Paige L Williams, Sc.D.³, Russ Hauser, MD, MPH, Sc.D.³ and Donna D Baird, Ph.D.⁴, ¹Boston University School of Public Health, Boston, MA, ²Boston University School of Medicine, Boston, MA, ³Harvard T.H. Chan School of Public Health, Boston, MA, ⁴National Institute of Environmental Health Sciences, Durham, NC

11:30 AM O-208 VITAMIN D LONG-TERM TREATMENT DECREASES HUMAN UTERINE LEIOMYOMA SIZE THROUGH SPECIFIC MOLECULAR MECHANISMS IN A XENOGRAFT ANIMAL MODEL.

Ana Corachán, MS¹, Hortensia Ferrero, PhD², Julia Escrig, MD³, Javier Monleón, MD³, Amparo Faus, Lab Technician⁴, Irene Cervelló, PhD⁴ and Antonio Pellicer, MD⁵, ¹IVI Foundation - University of Valencia, Valencia, Spain, ²IVI Foundation - Instituto de Investigación Sanitaria INCLIVA, Valencia, Spain, ³Servicio de Ginecología, Hospital Universitario y Politécnico La Fe, Valencia, Spain, ⁴IVI Foundation,



ORAL ABSTRACTS

IVF OUTCOME PREDICTORS 2

Moderators: Sarah Bjorkman and Thomas Toth

10:45 AM **O-211** **IMPACT OF BODY WEIGHT ON OVARIAN RESPONSE AFTER INDIVIDUALIZED OR FIXED FOLLICLE-STIMULATING HORMONE DOSING IN WOMEN UNDERGOING OVARIAN STIMULATION FOR IN VITRO FERTILIZATION.** Scott M Nelson, MD, PhD¹, Antonio La Marca, MD, PhD², Juan A Garcia-Velasco, MD, PhD³, Marie Göthberg, PhD⁴, Daniel M Jonker, PhD⁴ and Bernadette Mannaerts, PhD⁴, ¹University of Glasgow, Glasgow, United Kingdom, ²University of Modena and Reggio Emilia and Clinica Eugenio Modena, Modena, Italy, ³IVI Madrid, Rey Juan Carlos University, Madrid, Spain, ⁴Ferring Pharmaceuticals, Copenhagen, Denmark

11:00 AM **O-212** **PREDICTORS OF EARLY PREGNANCY LOSS FOR 7,261 INFERTILE PATIENTS AFTER IN VITRO FERTILIZATION.** Yan Ouyang, MD./Ph.D¹, Xihong Li, MD./Ph.D¹, Yuyao Mao, Master¹ and Pei Cai, Master², ¹Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China, ²Central South University, Changsha, China

11:15 AM **O-213** **THE IMPACT OF AGE BEYOND PLOIDY: OUTCOME DATA FROM 9,101 EUPLOID SINGLE EMBRYO TRANSFERS.** Andres Reig, M.D.¹, Richard Thomas Scott Jr., MD² and Emre Seli, M.D.², ¹Yale University - Bridgeport Hospital, Bridgeport, CT, ²IVI-RMA New Jersey, Basking Ridge, NJ

11:30 AM **O-214** **THREE-DIMENSIONAL ULTRASOUND DIAGNOSIS OF ADENOMYOSIS IS NOT ASSOCIATED WITH DIMINISHED LIVE BIRTH FOLLOWING SINGLE THAWED EUPLOID BLASTOCYST TRANSFER: A PROSPECTIVE COHORT STUDY.** Shelby A Neal, MD¹, Scott J Morin, MD², Marie D Werner, MD¹, Ndeye-Aicha Gueye, MD³, Paul Pirtea, MD¹, George Patounakis,

MD, PhD⁴, Richard Thomas Scott Jr., MD¹ and Linnea R Goodman, MD⁵, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²IVI-RMA Northern California, San Francisco, CA, ³IVI-RMA Pennsylvania, Allentown, PA, ⁴IVI-RMA Florida, Lake Mary, FL, ⁵University of North Carolina, Raleigh, NC

11:45 AM **O-215** **ART OUTCOMES AMONG PRE-PREGNANCY CANCER SURVIVORS: LINKAGE OF MASSACHUSETTS SART CORRS AND CANCER REGISTRY.** Leslie V. Farland, Sc.D.¹, Judy E Stern, PhD², Chia-Ling Liu, ScD³, Howard Cabral, PhD, MPH⁴, Richard Knowlton, MS⁵, Susan T Gershman, PHD, MS, MPH⁵, Hafsatou Diop, MD, MPH³ and Stacey A Missmer, Sc.D.⁶, ¹University of Arizona, Tucson, AZ, ²Dartmouth-Hitchcock, Lebanon, OR, ³MDPH, Bureau of Family Health and Nutrition, Boston, MA, ⁴Boston University, Boston, MA, ⁵MDPH, Massachusetts Cancer Registry, Boston, MA, ⁶Michigan State and Harvard T.H. Chan SPH, Grand Rapids, MI

12:00 PM **O-216** **ENDOMETRIAL COMPACTION (DECREASED THICKNESS) IN RESPONSE TO PROGESTERONE RESULTS IN HIGHER ONGOING PREGNANCY RATE.** Eran Zilberberg, M.D.¹, Dan Nayot, M.D.², Ramsey Genco Smith, B.Sc³, James Meriano, M.Sc³, Eran Barzilay, M.D. Ph.D.⁴, Jigal Haas, M.D.⁵ and Robert F. Casper, M.D.⁶, ¹Trio Fertility, Toronto, ON, Canada, ²TRIO Fertility; Staff Physician, Toronto, ON, Canada, ³TRIO Fertility, Toronto, ON, Canada, ⁴Department of Obstetrics and Gynecology, Samson Assuta Ashdod University Hospital, Ashdod, Israel, ⁵Affiliation not provided, ⁶TRIO Fertility and University of Toronto, Toronto, ON, Canada



ORAL ABSTRACTS

MALE FACTOR

Moderators: Robert Brannigan and Mark Sigman

10:45 AM **O-217** **A MICROFLUIDIC SPERM-SORTING DEVICE REDUCES THE PROPORTION OF SPERM WITH DOUBLE STRAND DNA FRAGMENTATION.** Aïda Pujol Masana, PhD¹, Agustín García-Peiró Sr., PhD², Rafael Lafuente, PhD³, Karinna Lattes, MD, MSc⁴, Rita Vassena, DVM, PhD⁵ and Daniel Mataró, MD, PhD⁴, ¹CIRH (Centro de Infertilidad y reproducción Humana), Barcelona, Spain, ²Barcelona Male Infertility Center (CIMAB) Vallcorba street, 1, Sant Quirze del Valles, Spain, ³Affiliation not provided, ⁴CIRH (Centro de Infertilidad y Reproducción Humana), Barcelona, Spain, ⁵Clinica EUGIN, Barcelona, Spain

11:00 AM **O-218** **A STEP TOWARDS THE AUTOMATION OF INTRACYTOPLASMIC SPERM INJECTION (ICSI): REAL TIME CONFIRMATION OF OOCYTE PENETRATION BY ELECTRICAL RESISTANCE MEASUREMENT.** Amir Mor, MD PhD¹, Man Zhang, M.D., Ph.D¹, Ecem Esencan, M.D.¹, Burcin Simsek, Ph.D.², Stephanie M Nichols-Burns, PhD³, Yifei Liu, PhD¹, Jonathan Lo, MSc¹, Dawn A Kelk, Ph.D., HCLD¹, Xiao-Bing Gao, PhD¹ and Emre Seli, M.D.¹, ¹Yale School of Medicine, New Haven, CT, ²University of Pittsburgh, Pittsburgh, PA, ³Yale University, New Haven, CT

11:15 AM **O-219** **SIMPLE VITRIFICATION OF A SMALL NUMBER OF TESTICULAR SPERMATOZOA USING RAPID-I CARRIERS IN NON-OBSTRUCTIVE AZOOSPERMIA.** Yozo Nagao, MS, Keiko Tanaka, MS, Hitomi Otsubo, BS, Shigetoshi Mizumoto, Ph.D., Takeshi Kuramoto, M.D., Ph.D. and Masao Murakami, PhD, Kuramoto Women's Clinic, Fukuoka, Japan

11:30 AM **O-220** **COMPARISON OF CRYOPROTECTANT FREE VITRIFICATION OF HUMAN SPERMATOZOA IN A NEW SEMEN SIMULANT WITH RAPID FREEZE OF**

SPERMATOZOA IN GLYCEROL.

Soundarya Janani Senthil Kumar, MBBS, M.Sc¹, N Sanjeeva Reddy, MD (Obstetrics and Gynecology), DGO², Manjula Daniel G, PhD³ and Sindhuja Namboori Srinivasan, MBBS, M.Sc Clinical Embryology, PhD Research Scholar⁴, ¹Clinical Embryology Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ²Professor and Head, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ³Assistant Professor, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁴Lecturer, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India

11:45 AM **O-221** **SURGICAL SPERM EXTRACTION VS. SEMEN CENTRIFUGATION: METHOD OF SPERMATOZOA RECOVERY DOES NOT CORRELATE WITH EUPLOIDY RATES IN PATIENTS WITH CRYPTOZOOSPERMIA** Carlos Hernandez-Nieto, MD¹, Joseph A. Lee, BA¹, Martha Luna-Rojas, MD¹, Tamar Alkon, MD¹, Christine Briton-Jones, PhD, HCLD¹, Natan Bar-Chama, MD², Alan B Copperman, MD² and Benjamin Sandler, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

12:00 PM **O-222** **TRANSIT THROUGH THE MALE GENITAL TRACT INCREASES SPERM CHROMATIN FRAGMENTATION.** Derek Keating, B.A., Philip Xie, B.S., Alessandra Parrella, M.Sc., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY



ORAL ABSTRACTS

MALE REPRODUCTION AND UROLOGY: RESEARCH

Moderators: Ranjith Ramasamy and Thomas Walsh

- 10:45 AM **O-223 A NOVEL MOUSE MODEL TO INVESTIGATE PLACEMENT, PROCESSING AND REMOVAL OF SPERM PROTAMINES.** Samantha B Schon, MD, MTR¹, Lindsay Moritz, BS² and Sue Hammoud, Ph.D.¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan, Cellular and Molecular Biology Graduate Program, Ann Arbor, MI
- 11:00 AM **O-224 POLYMORPHISMS IN THE HUMAN PRDM9 GENE MAY LEAD TO MEIOTIC ARREST AND AZOOSPERMIA.** M. Blake Evans, DO, Sherry Ralls, BA, Mohamed Mahgoub Mohamed, MD, PhD, Alan H DeCherney, MD and Todd Macfarlan, PhD, NIH-NICHD, Bethesda, MD
- 11:15 AM **O-225 A RANDOMIZED CONTROLLED ANIMAL TRIAL: EFFICACY OF A 4K3D VIDEO MICROSCOPE VERSUS AN OPTICAL OPERATING MICROSCOPE FOR UROLOGIC MICROSURGERY.** Russell P Hayden, MD¹, Huixing Chen, MD¹, Marc Goldstein, MD² and Philip S. S Li, MD³, ¹Weill Cornell Medicine, New York, NY, ²Weill Cornell Medicine, New York Presbyterian Hospital, New York, NY, ³Weill Cornell Medical College, New York, NY
- 11:30 AM **O-226 MALE PARTNER AGE AND THE RISK OF ISCHEMIC PLACENTAL DISEASE IN AUTOLOGOUS IVF PREGNANCIES.** Anna Merport Modest, PhD, MPH¹, Ai-ris Y. Collier, MD¹, Emily A Seidler, MD² and Laura E Dodge, ScD, MPH¹, ¹Beth Israel Deaconess Medical Center; Harvard Medical School, Boston, MA, ²Boston IVF; Beth Israel Deaconess Medical Center; Harvard Medical School, Boston, MA
- 11:45 AM **O-227 EVALUATION OF SPERM PROTEOME IN CANCER PATIENTS PRIOR TO TREATMENT.** Manesh Kumar Panner Selvam, PhD¹, Ashok Agarwal, PhD¹ and Peter Natesan Pushparaj, PhD²,

¹American Center for Reproductive Medicine, Cleveland Clinic, Cleveland, OH, ²Center of Excellence in Genomic Medicine, Faculty of Applied Medical Sciences, King Abdulaziz University, Jeddah, Saudi Arabia

- 12:00 PM **O-228 NOVEL EX VIVO CULTURE OF NEONATAL MOUSE TESTICULAR ORGANOID MAINTAINED IN A HANGING DROPLET WITH RETINOIC ACID.** Philip Xie, B.S., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

NURSING

Moderators: Lauren Nervi and Eleanor Stevenson

- 10:45 AM **O-229 TRIGGER PREPARATION ONLINE VIDEOS IMPROVE WORKPLACE EFFICIENCY & NURSING SATISFACTION.** Viji Sundaram, MD¹, Katrina Cruz, BSN, MSN², Maria Farinha, BSN², Martha Noel, MD², Marcelle I Cedars, MD³ and Heather G. Huddleston, MD³, ¹University of California, San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA, ²University of California, San Francisco, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA
- 11:00 AM **O-230 ELECTIVE EGG FREEZING AND MALE SUPPORT: A QUALITATIVE STUDY OF MEN'S HIDDEN ROLES IN WOMEN'S FERTILITY PRESERVATION.** Marcia C. Inhorn, PhD, MPH¹, Daphna Birenbaum-Carmeli, PhD² and Pasquale Patrizio, M.D.³, ¹Yale University, New Haven, CT, ²University of Haifa, Haifa, Israel, ³Yale Fertility Center, New Haven, CT
- 11:15 AM **O-231 THE EFFECTIVENESS OF EDUCATION USING VIDEOS WITH SMART PHONES AND A BOOKLET ON FERTILITY WOMEN - FOCUSED ON THE PROCESS OF IN VITRO FERTILIZATION.**



ORAL ABSTRACTS

Eun Hee Seo, MS¹, Hwayeon Cho, Master¹, Eunjung Jeon, master¹, Kyongyol Kim, MS¹, Jisuk Lee, BS¹, Hyunju Choi, BS¹, Mi Ok Moon, MS¹, Hayoung Lee, MS¹, Tae Ki Yoon, M.D., Ph.D.² and Hyeok Kim, MD, PhD², ¹CHA University, CHA fertility center, Seoul station, Seoul, Korea, Republic of (South), ²CHA Fertility Center Seoul Station, Obstetrics and Gynecology, Seoul, Korea, Republic of (South)

11:30 AM **O-232** **EVALUATION OF ANXIETY IN FREEZE-ALL PATIENTS.** Nagihan Dinçer, Bsc¹, Aysel Salgın, Bsc¹, Necati Findikli, Ph.D.², Fazilet Kubra Boynukalin, M.D., MSc³ and Mustafa Bahçeci, M.D., Ph.D.², ¹BAHÇECİ FULYA IVF CENTER, İSTANBUL, Turkey, ²Bahçeci Health Group-Fulya IVF Centre, Istanbul, Turkey, ³Bahçeci Health Group-Fulya IVF Centre, İSTANBUL, Turkey

11:45 AM **O-233** **CLINICAL EXPERIENCE OF NURSING TEAM IN PRECONCEPTION GENETIC COUNSELING AT A LARGE, DIVERSE INFERTILITY PRACTICE.** Marlene De La Mota, BS¹, Elizabeth Lipov, BS¹, Karina Yaipen, RN¹, Joseph A. Lee, BA¹, Teresa A. Cacchione, MS, CGC¹, Melissa Bell, RN¹, Margaret Daneyko, RN¹ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

12:00 PM **O-234** **WHAT IS THE IDEAL NUMBER OF VIALS OF DONOR SPERM TO PURCHASE FOR PATIENTS UNDERGOING DONOR SPERM INTRAUTERINE INSEMINATION (DIUI)?** Sydney Chang, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Melissa Bell, RN², Margaret Daneyko, RN², Alan B Copperman, MD¹ and Tanmoy Mukherjee, MD², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

PROFESSIONAL DEVELOPMENT

Moderators: Abbey Kruper and Premal Patel

10:45 AM **O-235** **IMPROVING THE REI FELLOWSHIP INTERVIEW EXPERIENCE: A SURVEY.** Erika P New, MD, MPH¹, Papri Sarkar, MD², Ruben J Alvero, MD³ and Anthony N Imudia, MD⁴, ¹University of South Florida, Brandon, FL, ²USF, Tampa, FL, ³Stanford University, Palo Alto, CA, ⁴University of South Florida, Tampa, FL

11:00 AM **O-236** **THE STATE OF WOMEN IN ACADEMIC REPRODUCTIVE ENDOCRINOLOGY PROGRAMS.** Jessica Selter, MD, Emily Spurlin, MD and Paula C. Brady, MD, Columbia University Medical Center, New York, NY

11:15 AM **O-237** **EVALUATION OF OFFICE HYSTEROSCOPY SIMULATION AS PART OF AN OB/GYN RESIDENCY TRAINING CURRICULUM.** Jessica Selter, MD, Sally F. Vitez, MD, Eric J. Forman, MD and Samuel Zev Williams, M.D., Ph.D., Columbia University Medical Center, New York, NY

11:30 AM **O-238** **FERTILITY KNOWLEDGE IN OBSTETRICS AND GYNECOLOGY RESIDENTS.** Leah Roberts, MD¹, Rashmi Kudesia, MD², Shalizi Dolan, MD¹ and Marisa Rose, MD¹, ¹Temple University Hospital, Philadelphia, PA, ²CCRM Fertility Houston, Houston, TX

11:45 AM **O-239** **COLLABORATIVE AND MULTIDISCIPLINARY APPROACH TO THE REI FELLOWSHIP APPLICATION.** Randi H. Goldman, M.D., Christine Mullin, M.D., Esther Lopez, M.P.A., Jeanette Tomasino, Ph.D., Martina Borovica, M.B.A. and Avner Hershlag, M.D., Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY

12:00 PM **O-240** **REI EXPOSURE IN RESIDENCY: HOW MUCH IS ENOUGH?** Jason A. Schneider, M.D.¹, Tomer Singer, MD², Avner Hershlag, M.D.² and Randi H. Goldman, M.D.², ¹Zucker School of Medicine at Hofstra/Northwell at Lenox Hill Hospital, New York, NY, ²Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY



ORAL ABSTRACTS

REGENERATIVE MEDICINE AND STEM CELLS

Moderators: Monica Laronda and Kyle Orwig

10:45 AM **O-241** **DIFFERENTIATION OF EMBRYONIC STEM CELLS INTO MALE GERM LINE CELLS IN A BIOREACTOR USING DECELLULARIZED SEMINIFEROUS TUBULE MATRIX IMMERSSED IN A CONDITIONED MEDIUM.** Philip Xie, B.S., Aysha Trout, B.A., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

11:00 AM **O-242** **EFFICIENT GENERATION OF GRANULOSA CELL LIKE CELLS FROM HUMAN ENDOMETRIUM DERIVED IPS CELLS AS A SOURCE FOR AUTOLOGOUS ESTRADIOL PRODUCTION.** Joo Hyun Park, MD, PhD, Heeyon Kim, M.D., Hyun Kyung Kim, MS and SiHyun Cho, M.D., Ph.D., Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Korea, Republic of (South)

11:15 AM **O-243** **TARGETING ACTIVATED PRO-INFLAMMATORY PATHWAY IN PRIMED MYOMETRIAL STEM CELLS WITH VITAMIN D3 AND PARICALCITOL.** Hoda Elhossiny Elkafas, MSc¹, Osama A Badary, PhD², Engy Elmorsy, PhD³, Rehab Kamel, PhD³, Ayman Al-Hendy, MD PhD¹ and Qiwei Yang, PhD⁴, ¹University of Illinois at Chicago College of Medicine, Chicago, IL, ²National Organization for Drug Control and Research (NODCAR), Giza, Egypt, ³pharmacology and toxicology department faculty of pharmacy Helwan University, Cairo, Egypt, ⁴University of Illinois at Chicago, Chicago, IL

11:30 AM **O-244** **BONE MARROW MESENCHYMAL STEM CELLS ARE MOBILIZED TO THE CIRCULATION DURING PREGNANCY AND ARE A SOURCE OF DECIDUAL STROMAL CELLS.** Reshef Tal, MD, PhD¹, Pallavi Pallavi, MD¹, Yuan-Yuan Fang,

MD¹, Shruti Chinchankar, MBBS¹ and Hugh S. Taylor, M.D.², ¹Yale School of Medicine, New Haven, CT, ²Yale University School of Medicine, New Haven, CT

11:45 AM **O-245** **USE OF CRISPR/dCas9 SYSTEM FOR INDUCTION OF MESENCHYMAL STEM CELLS.** Sercin Karahuseyinoglu, MD¹, Ayse Kose, MD¹, Gizem Nur Sahin, MS² and Yagmur Ergun, MS. Student³, ¹Asst. Prof., Istanbul, Turkey, ²MS, Istanbul, Turkey, ³MS. Student, Istanbul, Turkey

12:00 PM **O-246** **POST-MEIOTIC MALE GERM CELL DIFFERENTIATION OF MOUSE EMBRYONIC STEM CELLS BY EXPOSURE TO CONDITIONED MEDIUM.** Aysha Trout, B.A., Philip Xie, B.S., Alessandra Parrella, M.Sc., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

REPRODUCTIVE ENDOCRINOLOGY

Moderators: Malinda Lee and Jennifer Eaton

10:45 AM **O-247** **VARYING LEVELS OF SERUM ESTRADIOL DO NOT ALTER THE TIMING OF THE EARLY ENDOMETRIAL SECRETORY TRANSFORMATION.** Emily K Osman, MD¹, Tianren Wang, M.D., Ph.D.², Min Yang, PhD², Yiping Zhan, Ph.D², Caroline R Juneau, MD³, Scott J Morin, MD⁴, Emre Seli, M.D.¹, Richard Thomas Scott Jr., MD¹ and Jason M Franasiak, MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Foundation for Embryonic Competence, Basking Ridge, NJ, ³Audubon Fertility, New Orleans, LA, ⁴IVI-RMA Northern California, San Francisco, CA

11:00 AM **O-248** **DISRUPTION OF MITOCHONDRIAL DYNAMICS IN OOCYTES RESULTS IN INFERTILITY AND DIMINISHED OVARIAN RESERVE.** Man Zhang, M.D, Ph.D¹, Muhammed Burak Bener, B.S¹,



ORAL ABSTRACTS

Zongliang Jiang, Ph.D.², Tianren Wang, M.D., Ph.D.³, Ecem Esencan, M.D.¹, Richard Scott III, B.S.⁴ and Emre Seli, M.D.¹, ¹Yale School of Medicine, New Haven, CT, ²Louisiana State University, Baton Rouge, LA, ³Foundation for Embryonic Competence, Basking Ridge, NJ, ⁴Foundation of Embryo Competence, Basking Ridge, NJ

11:15 AM **O-249** **CELL TYPE SPECIFIC EFFECTS OF HYPERLIPIDEMIA AND HYPERINSULINEMIA, CHARACTERISTIC OF REPROMETABOLIC SYNDROME, ON PITUITARY FUNCTION.** Rosemary McDonald, BS¹, Katherine Kuhn, MS², Andrew P Bradford, PhD² and Nanette Santoro, M.D.², ¹University of Colorado Anschutz Medical Campus, Aurora, CO, ²University of Colorado School of Medicine, Aurora, CO

11:30 AM **O-250** **CHRONIC EXPOSURE TO AMH MAY ACCELERATE GROWTH OF FOLLICLES VIA DOWNREGULATION OF AMHR II.** Limor Man, M.D., M.Med.Sc¹, Eleni Kallinos, B.S.², Daylon James, PhD³ and Zev Rosenwaks, M.D.³, ¹Assistant Professor of research, NYC, NY, ²NYC, NY, ³The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

11:45 AM **O-251** **ANDROGEN HORMONES AND SEXUAL FUNCTION AMONG CANCER SURVIVORS: SHORT AND LONG-TERM TREATMENT EFFECTS.** Leigh A Humphries, MD¹, Katherine E Cameron, MD, MBE², Mary D Sammel, ScD³ and Clarisa R Gracia, MD, MSCE¹, ¹Hospital of the University of Pennsylvania, Philadelphia, PA, ²University of Pennsylvania, Philadelphia, PA, ³Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania, Philadelphia, PA

12:00 PM **O-252** **ETHNIC DISCORDANCE IN SERUM MÜLLERIAN HORMONE (AMH) IN HEALTHY WOMEN; POPULATION STUDY FROM CHINA AND EUROPE.** Scott M Nelson, MD, PhD¹, Gemma

L Clayton, PhD², Abigail Fraser, PhD³ and Sun Aijun, PhD⁴, ¹University of Glasgow, Glasgow, United Kingdom, ²University of Bristol, Bristol, United Kingdom, ³University of Bristol, Bristol, United Kingdom, ⁴Peking Union Medical College Hospital, Beijing, China

REPRODUCTIVE IMMUNOLOGY

Moderators: Raymond Anchan and Svetlana Dambaeva

10:45 AM **O-253** **INTERFERON GAMMA-INDUCED PROTEIN 10 (IP-10) IS SIGNIFICANTLY LOWER AT EARLY IMPLANTATION IN TWIN VERSUS SINGLETON PREGNANCIES.** Samantha Simpson, MD¹, Janina Kaislasuo, MD, PhD¹, Gang Peng, PhD², Paulomi Aldo, MS¹, Michael Paidas, MD², Seth Guller, PhD², Gil Mor, MD, PhD² and Lubna Pal, MBBS², ¹Yale University, New Haven, CT, ²Affiliation not provided

11:00 AM **O-254** **SUPEROVULATION ALTERS THE HUMAN UTERINE NATURAL KILLER CELL REPERTOIRE DURING THE WINDOW OF IMPLANTATION.** Anna Sokalska, MD, PhD¹, Scott Gordon, MD, PhD², Sneha Mani, PhD¹, Charikleia Kalliora, MD¹ and Monica Mainigi, MD¹, ¹University of Pennsylvania, Philadelphia, PA, ²Children's Hospital of Philadelphia, Division of Neonatology, Philadelphia, PA

11:15 AM **O-255** **UNRAVELLING THE IMMUNOGENETICS OF PREGNANCY: PARENTAL HLA-C ALLOTYPES ARE PREDICTIVE OF PREGNANCY LOSS AFTER SINGLE EUPLOID EMBRYO TRANSFERS.** Diego Marin, M.S.¹, Xin Tao, Ph.D², Li Sun, Ph.D² and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Foundation for Embryonic Competence, Basking Ridge, NJ

11:30 AM **O-256** **EFFICIENCY OF IMMUNOMODULATION OF ENDOMETRIUM WITH MIXED PATERNAL AND MATERNAL**



ORAL ABSTRACTS

PERIPHERAL MONONUCLEAR CELLS IN REPEATED IMPLANTATION FAILURES.

Hanen Elloumi, Dr, Khaled Mahmoud, Dr, Sonia Mnallah, Dr, Mariem ben Khelifa, PhD, Fathi Zhioua, Dr, Khaled Terras, Dr and Mohamed Khrouf, Dr, clinique la rose, centre FERTILLIA, Tunis, Tunisia

11:45 AM **O-257** **UTERINE NK CELL ACTIVITY IN RECURRENT IMPLANTATION FAILURE-ROLE OF INTRALIPIDS.** Krishna Deepika, MS, FRM¹ and Arveen Vohra, MS, FRM², ¹Consultant in Rep Med, Bangalore, India, ²Senior Consultant, Milann Fertility Centre, Bangalore, India

12:00 PM **O-258** **EXPRESSION AND FUNCTION OF THE PD-1 IMMUNE CHECKPOINT IN THE HUMAN OVARY AND FALLOPIAN TUBE.** Joshua Johnson, PhD¹, Evelyn Mercedes Llerena Cari, M.S.¹, Peter Ka Sam, B.S.¹, Elise S Bales, B.S.¹, Susan Ryu, Ph.D.¹, Liesl Nel-Themaat, PhD, HCLD¹, Amanda Nicole Kallen, MD², Alex J Polotsky, M.D., M.S.¹, Miriam D. Post, M.D.³, David J Orlicky, Ph.D.³, Kimberly Jordan, Ph.D.⁴ and Benjamin G Bitter, Ph.D.¹, ¹University of Colorado Anschutz Medical Campus, Aurora, CO, ²Yale University, New Haven, CT, ³University of Colorado Anschutz Medical Campus, Department of Pathology, Aurora, CO, ⁴University of Colorado Anschutz Medical Campus, Department of Immunology and Microbiology, Aurora, CO

M.D.³, Weon-Young Son, Ph.D.⁶, Mali Salmon-Divon, Ph.D.⁷ and Michael H. Dahan, MD¹, ¹McGill University, Montreal, QC, Canada, ²Montreal, QC, Canada, ³Affiliation not provided, ⁴McGill University Health Centre, Montreal, QC, Canada, ⁵MUHC Reproductive Centre, Montreal, QC, Canada, ⁶Division of Reproductive Endocrinology and Infertility, McGill University Health Care Centre, Montreal, QC, Canada, ⁷Senior Lecturer, Ariel, Israel

11:00 AM **O-260** **SUBDERMAL HORMONE IMPLANT AS TREATMENT FOR THE IMPROVEMENT OF MENOPAUSAL SYMPTOMS IN A PRIVATE FERTILITY CENTER.** Arnoldo Gonzalez, M.D.¹, Pasquale Patrizio, M.D.², Julio C. Rosales, M.D.¹, Guillermo Russell, M.D.¹, Salomon Alvarado, M.D.¹ and Roberto Santos, M.D.¹, ¹IECH, Monterrey, NL, Mexico, ²Yale Fertility Center, New Haven, CT

11:15 AM **O-261** **CIRCULATING ESTRADIOL (E2) LEVELS IN POSTMENOPAUSAL USERS AND NON-USERS OF VAGINAL ESTROGEN.** Molly B Moravek, MD, MPH¹, Sybil L Crawford, PhD², Daniel McConnell, PhD¹, John F Randolph, MD¹, Elaine Waetjen, MD³, Fangbai Sun, MPH⁴, Heping Zhang, PhD⁴ and Nanette Santoro, M.D.⁵, ¹University of Michigan, Ann Arbor, MI, ²University of Massachusetts Medical School, Worcester, MA, ³University of California Davis School of Medicine, Sacramento, CA, ⁴Yale University School of Public Health, New Haven, CT, ⁵University of Colorado Denver, Aurora, CO

11:30 AM **O-262** **DO ORAL OVULATION INDUCTION AGENTS OFFER BENEFITS IN WOMEN 38 YEARS AND OLDER?** Naama Steiner, M.D.¹, Jacob Ruiter-Ligeti, M.D.¹, Guy Shrem, M.D.¹, Alexander Volodarsky-Perel, M.D.², William Buckett, M.D.² and Michael H. Dahan, MD³, ¹McGill University Health Centre, Montreal, QC, Canada, ²Division of Reproductive

PARENTAL AGING

Moderators: John Nichols and Luis Hoyos

10:45 AM **O-259** **INFLUENCE OF MATERNAL AGE AND OVARIAN RESERVE ON THE DECISION TO CONTINUE OR TO CANCEL IVF CYCLES IN PATIENTS WITH ONE OR TWO LARGE FOLLICLES.** Guy Shrem, M.D.¹, Alina Mariana Mahfoudh, M.A.², Jacques Balayla, M.D.³, Naama Steiner, M.D.⁴, Alexander Volodarsky-Perel, M.D.³, Sara Henderson, M.Sc.⁵, Atif Zeadna,



ORAL ABSTRACTS

11:45 AM **O-263** **A 5-YEAR ANALYSIS OF DEMOGRAPHICS, CYCLE CHARACTERISTICS AND REPRODUCTIVE OUTCOMES OF 907 EGG FREEZING CYCLES IN PATIENTS WITH DIMINISHED OVARIAN RESERVE AND AGE-RELATED FERTILITY DECLINE.** Aylin P. Cil, M.D.¹, Remzi Abali, M.D.², Aysen Boza, M.D.¹, Lale S. Karakis, M.D.², Mehmet Ceyhan, M.D.¹, Ece Aksakal, M.D.¹, Ipek Keles, Ms³, Ozgur Oktem, M.D.³, Mustafa Baris Ata, M.D.³, Mustafa Bahçeci, M.D., Ph.D.² and Bulent Urman, M.D.¹, ¹American Hospital,

12:00 PM **O-264** **THE IMPACT OF PATERNAL AGE ON REPRODUCTIVE OUTCOMES IN THE SETTING OF A EUPLOID SINGLE EMBRYO TRANSFER ACHIEVED WITH SURGICALLY EXTRACTED SPERM.** Brent M Hanson, MD¹, Julia G Kim, MD, MPH¹, Ashley W Tiegs, MD², Emily K Osman, MD¹, Shelby A Neal, MD¹, Ruth B Lathi, MD³, Richard Thomas Scott Jr., MD¹ and Jason M Franasiak, MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, ³Stanford Fertility and Reproductive Medicine Center, Sunnyvale, CA

Wednesday, October 16, 2019

10:45 am - 12:15 pm

LATE-BREAKING ABSTRACT SESSION 1

Moderators: James Dupree and Fady Sharara

10:45 AM **O-265** **TREATMENT OF SYMPTOMS OF UTERINE FIBROIDS WITH RELUGOLIX COMBINATION THERAPY: EFFICACY AND SAFETY RESULTS FROM THE PHASE 3 LIBERTY 1 CLINICAL TRIAL.** Ayman Al-Hendy, MD PhD¹, Andrea S Lukes, MD², Alfred Poindexter III, MD³, Roberta Venturella, MD PhD⁴, Claudio Villarroel, MD⁵, Yulan Li, PhD⁶, Laura F McKain, MD⁶ and Elizabeth A. Stewart, M.D.⁷, ¹University of Illinois College of Medicine, Chicago, IL, ²Carolina Women's Research and Wellness Center, Durham, NC, ³Advances In Health, Houston, TX, ⁴Magna Graecia University of Catanzaro, Department of Obstetrics, Catanzaro, Italy, ⁵Institute for Mother and Child Research (IDIMI), Faculty of Medicine, University of Chile, Santiago, Chile, ⁶Myovant

11:00 AM **O-266** **OPEN-LABEL PHASE IV CLINICAL TRIAL TO EVALUATE THE EFFECT OF NASAL TESTOSTERONE GEL ON REPRODUCTIVE HORMONES AND SEMEN PARAMETERS IN HYPOGONADAL MEN.** Thomas A Masterson III, MD¹, Joshua N Bitran, BS², Manuel Molina, MD², Emad Ibrahim, MD, HCLD(ABB)¹, Ursula Kaiser, MD³ and Ranjith Ramasamy, M.D.¹, ¹University of Miami Miller School of Medicine, Miami, FL, ²University of Miami, Miami, FL, ³Brigham and Women's Hospital, Division of Endocrinology, Boston, MA

11:15 AM **O-267** **DECREASED LIVE BIRTH RATE WITH LONGER OVARIAN STIMULATION IN FRESH BUT NOT FREEZE-ALL IN VITRO FERTILIZATION (IVF) CYCLES: ANALYSIS**



ORAL ABSTRACTS

OF 17,830 CYCLES FROM THE SART REGISTRY. Rachel S Gerber, MD¹, Michelle Kappy, MD¹, Melissa Fazzari, Ph.D.¹, Sharon Galperin, BS¹, Alexa Cohen, MD¹, Harry Lieman, MD¹, Sangita K Jindal, Ph.D.² and Erkan Buyuk, MD¹, ¹Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ²Montefiore Institute for Reproductive Medicine and Health, Hartsdale, NY

ANTI-MULLERIAN HORMONE (AMH) IN THE CALIPER COHORT OF HEALTHY COMMUNITY CHILDREN AND ADOLESCENTS: IMPROVING CARE IN ONCOFERTILITY. Ruth Ronn, M.D.¹, Mary Kathryn Bohn, BSc², Khosrow Adeli, PhD, FCACB, DABCC², Barry Hoffman, PhD, FCACB³ and Ellen M Greenblatt, MD¹, ¹Mount Sinai Fertility, Sinai Health System, Toronto, ON, Canada, ²The Hospital for Sick Children/University of Toronto, Toronto, ON, Canada, ³Mount Sinai Hospital, Toronto, ON, Canada

DAMAGED SPERM PARAMETERS AND SPERMATION FAILURE IN VENLAFAXINE-TREATED RATS: A CORRELATION WITH HIGH TESTICULAR AROMATASE IMMUNOEXPRESSION AND REDUCED EPIDIDYMAL V-ATPASE. Estela Sasso-Cerri, PhD¹, Fabiane de Santi, Master degree², André AS da Silva, Under graduate student¹, Beatriz M Rodrigues, Under graduate student¹, Flávia L Beltrame, PhD² and Paulo S Cerri, PhD¹, ¹São Paulo State University - UNESP, Araraquara, Brazil, ²São Paulo Federal University - UNIFESP, Morphology and Genetics, São Paulo, Brazil

IN VITRO MATURATION (IVM) VERSUS IN VITRO FERTILIZATION (IVF) IN WOMEN WITH HIGH ANTRAL FOLLICLE COUNT (AFC): A RANDOMIZED CONTROLLED TRIAL (NCT03405701). Lan N Vuong, M.D; Ph.D.¹, Vu N A Ho, MD², Tuong M Ho, MD², Vinh Q Dang, MD², Tuan H Phung, MD², Nhu H Giang, MD², Anh H Le, MSc², Toan D Pham, BSc², Rui Wang, MD³, Robert J Norman, MD, PhD, Prof.³, Robert B Gilchrist, Ph.D., Prof.⁴, Johan Smits, MD, PhD, Prof.⁵ and Ben W Mol, M.D., Ph.D. Prof.⁶, ¹University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh, Viet Nam, ²HOPE Research Center, Ho Chi Minh, Viet Nam, ³The University of Adelaide, Robinson Research Institute, Adelaide, SA, Australia, ⁴School of Women's and Children's Health, University of New South Wales Sydney, Sydney, NSW, Australia, ⁵Follicle Biology Laboratory, Vrije Universiteit Brussel,

11:45 AM O-269

12:00 PM O-270

Wednesday, October 16, 2019

10:45 am - 12:15 pm

LATE-BREAKING ABSTRACT SESSION 2

Moderators: Kathryn Go and Peter McGovern

THE AGE TAX: OOCYTE CRYOPRESERVATION (OC) AGE-BASED COST ANALYSIS. Bat-Sheva L Maslow, MD, MSCTR¹, Kristen Mancinelli, MSPH¹, Jennifer Nicole Lannon, BS², Sidonia R Swarm, BS² and Joshua U Klein, MD¹, ¹Extend Fertility, New York, NY, ²Freeze. Health, Miami, FL

MENSTRUAL CYCLE REGULARITY AND LENGTH AND RISK OF MORTALITY: A PROSPECTIVE COHORT STUDY. Yixin Wang, MD¹, Mariel Arvizu, MD, ScD¹, Bernard Rosner, PhD¹, Jennifer J Stuart, ScD², Janet Rich-Edwards, PhD¹, JoAnn E. Manson, MD, DrPH¹, An Pan, PhD³ and Jorge E Chavarro,



ORAL ABSTRACTS

MD, Sc.D.¹, ¹Harvard T.H. Chan School of Public Health, Boston, MA, ²Brigham and Women's Hospital and Harvard Medical School, Boston, MA, ³Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

11:15 AM **O-273 THE EFFECT OF EXTENDED BLASTOCYST EXPOSURE OF HYALURONAN ENRICHED TRANSFER MEDIA ON IMPLANTATION RATE IN FROZEN EMBRYO TRANSFERS.** Oscar Perez, Ph.D.¹, Hannalie Adriaanse, BS¹, Breanna Tilley, MSc¹, Gabriella Navarrete, BS¹, Linda Lay, BS¹, Lucille M Little, BS¹, Ravi Gada, MD², Laura Lawrence, MD², Karen Lee, MD², Mika R Thomas, MD² and Samuel Chantilis, MD², ¹Dallas Fertility Center, Dallas, TX, ²Dallas Fort Worth Fertility Associates, Dallas, TX

11:30 AM **O-274 THE RATE OF TRUE RECURRENT IMPLANTATION FAILURE (RIF) IS LOW: RESULTS OF THREE SUCCESSIVE FROZEN EUPLOID SINGLE EMBRYO TRANSFERS (SET).** Paul Pirtea, MD¹, Dominique De Ziegler, MD², Diego Marin, M.S.¹, Li Sun, Ph.D³, Yiping Zhan, Ph.D³, Jean Marc Ayoubi, MD.PhD², Emre Seli, M.D.¹, Jason M Fransiak, MD¹ and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Hospital FOCH, Paris, France, ³Foundation for Embryonic Competence, Basking Ridge, NJ

11:45 AM **O-275 A SINGLE INJECTION OF LONG ACTING GnRH-ANTAGONIST -DEGARELIX- DOWNREGULATES HYPOPHYSIS DURING OVARIAN STIMULATION. A RANDOMIZED CONTROLLED TRIAL** Tatiana Chartomatsidou, MSc¹, Robert Najdecki, MD, PhD¹, Foteini Chouliara, MD¹, Evangelia Timotheou, MSc¹, Petroula Tatsi, MSc¹, Eirini Asouchidou, MD, PhD², Sofia Bouchlariotou, MD, PhD¹, Evangelos Mbambas, MD, PhD¹,

Lazaros Konstantinos Karagiannidis, MD¹, Nikolaos Nikolettos, MD, PhD³ and Evangelos Papanikolaou, MD, PhD¹, ¹Assisting Nature, Center of Assisted Reproduction and Genetics, Thessaloniki, Greece, ²Medical Department, Aristotle University of Thessaloniki, Thessaloniki, Greece, ³Medical Department, Democritus University of Thrace, Alexandroupolis, Greece

12:00 PM **O-276 EFFICACY OF LF111 IN OBESE WOMEN, AN INVESTIGATIONAL PROGESTIN-ONLY ORAL CONTRACEPTIVE.** Carolyn L Westhoff, MD, MSc¹, Kurt T Barnhart, MD, MSCE², Anne E Burke, MD, MPH³, Thomas D Kimble, MD⁴, David F Archer, MD⁴ and Enrico Colli, MD⁵, ¹Columbia University, New York, NY, ²University of Pennsylvania, Division of Reproductive Endocrinology and Infertility, Philadelphia, PA, ³Johns Hopkins School of Medicine, Baltimore, MD, ⁴Eastern Virginia Medical School, Norfolk, VA, ⁵Exeltis, Madrid, Spain



POSTER PRESENTATIONS AND ABSTRACTS

Tuesday, October 15, 2019

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ACCESS TO CARE

- P-1 DOES AN INSURANCE MANDATE TO COVER INFERTILITY TREATMENT INCREASE ACCESS TO IN VITRO FERTILIZATION?** Kelly Payne, B.A.¹, Nannan Thirumavalavan, M.D.², Jabez Gondokusumo, B.S.¹, Adithya Balasubramanian, BA¹, Michael Lehner, B.S.³, Jason Scovell, Ph.D.¹, J. Scott Gabrielsen, M.D., Ph.D.¹, Dolores J. Lamb, Ph.D.⁴ and Larry I. Lipshultz, M.D.¹, ¹Baylor College of Medicine, Houston, TX, ²University Hospitals Urology Institute/Case Western Reserve University, Cleveland, OH, ³University of Texas McGovern Medical School, Houston, TX, ⁴Weill Cornell Medical College, New York, NY
- P-2 DEFINING INFERTILITY: HOW THE LANGUAGE USED TO DESCRIBE INFERTILITY SHAPES PUBLIC PERCEPTION AND POLICY.** Abigail C Mancuso, MD, Karen M Summers, MPH CHES, Rebecca K Chung, MD, Aaron Scherer, PhD and Ginny L Ryan, MD, MA, University of Iowa Carver College of Medicine, Iowa City, IA
- P-3 PATIENT ACCESS AND UNTAPPED POTENTIAL: CAN NEW DATA DRIVE PROGRESS?** Howard Taske, BA¹, Patty Stull, BS¹, Andrew F Khair, PhD, MBA² and Gaurang S Daftary, MD, MBA², ¹Fertility Dynamics, Washington, DC, ²Ferring Pharmaceuticals Inc, Parsippany, NJ
- P-4 GENDER AND FERTILITY STATUS AFFECT PERCEPTIONS OF INFERTILITY AND SUPPORT FOR ACCESS TO CARE: A CROSS SECTIONAL STUDY.** Rebecca K Chung, MD, Karen M Summers, MPH CHES, Abigail C Mancuso, MD, Aaron Scherer, PhD and Ginny L Ryan, MD, MA, University of Iowa Hospitals and Clinics, Iowa City, IA
- P-5 VARIATION IN AVAILABILITY OF FERTILITY CARE TREATMENTS ACROSS US REGIONS.** Leslie B Ramirez, PhD¹, Alexis Adler, BS¹, Bat-Sheva L Maslow, MD, MSCTR¹, Joshua U Klein, MD¹ and Urbano L Franca, PhD², ¹Extend Fertility, New York, NY, ²Boston Children's Hospital / Harvard Medical School, Boston, MA
- P-6 NATIONWIDE SURVEY OF ACCESS TO CARE INITIATIVES IN REI PRACTICES ASSOCIATED WITH OB/GYN RESIDENCY PROGRAMS.** Tia Jackson-

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POSTER PRESENTATIONS AND ABSTRACTS

Bey, MD MPH¹, Holly Mehr, MD MEd², Jacqueline Ho, MD MS³, Lusine Aghajanova, MD PhD⁴, Molly M Quinn, MD², Jacquelyn Rose Hoffman, BA⁵ and Christopher N Herndon, MD⁶, ¹University of Illinois at Chicago, College of Medicine, Chicago, IL, ²University of California, Los Angeles, Los Angeles, CA, ³University of Southern California, Los Angeles, CA, ⁴Stanford University School of Medicine, Stanford, CA, ⁵University of Arizona College of Medicine - Tucson, Tucson, AZ, ⁶University of Washington, Seattle, WA

CANCER

- P-7 ONCOLOGIC OOCYTE CRYOPRESERVATION FOR FERTILITY PRESERVATION: NATIONAL TRENDS AND COMPARISON OF CYCLE CHARACTERISTICS BETWEEN WOMEN WITH AND WITHOUT CANCER.** Jennifer F Kawwass, MD¹, Lisa M Shandley, MD, MSc², Sheree L Boulet, DrPH³ and Heather S Hipp, MD¹, ¹Emory University, Atlanta, GA, ²Affiliation not provided, ³Emory University School of Medicine, Atlanta, GA
- P-8 RISK FACTORS FOR ATYPICAL HYPERPLASIA AND ENDOMETRIAL CANCER IN THE INFERTILITY POPULATION: A CASE-CONTROL STUDY.** Jenna Lipson Kahn, M.D.¹, Lindsey Buckingham, M.D.², Nathanael C Koelper, MPH³, Mary D Sammel, ScD⁴ and Divya Kelath Shah, MD, MME⁵, ¹Pennsylvania Hospital, University of Pennsylvania Health System, Philadelphia, PA, ²Affiliation not provided, ³UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM, PHILADELPHIA, PA, ⁴UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM, PHILADELPHIA, CA, ⁵University of Pennsylvania, Philadelphia, PA
- P-9 UTILIZATION OF GONADOTROPIN-RELEASING HORMONE AGONISTS FOR PRESERVATION OF OVARIAN FUNCTION IN WOMEN WITH BREAST CANCER RECEIVING CHEMOTHERAPY.** Sally F. Vitez, MD, Ling Chen, MD MPH, Paula C. Brady, MD and Jason D. Wright, MD, Columbia University Medical Center, New York, NY
- P-10 EVIDENCE THAT ALKYLATING CHEMOTHERAPY IS NOT RELATED TO CLINICAL INFERTILITY IN ADOLESCENT AND YOUNG ADULT (AYA) CANCER SURVIVORS.** Kelsey Pinson, MD¹, Christina Lam, MD¹, Alexa CO Medica, MD², Brian W Whitcomb, PhD³, Ksenya Shliakhtsitsava, MD⁴ and H. Irene Su, M.D.,

M.S.C.E.⁵, ¹University of California, San Diego, La Jolla, CA, ²UCSD resident, San Diego, CA, ³University of Massachusetts, Amherst, Amherst, MA, ⁴UT Southwestern, Dallas, TX, ⁵University of California San Diego, La Jolla, CA

- P-11 REPRODUCTIVE POTENTIAL OF VITRIFIED OOCYTES AND EMBRYOS PRODUCED FROM IN VITRO MATURATION CYCLES OF CANCER PATIENTS FOR FERTILITY PRESERVATION.** Weon-Young Son, Ph.D, Helene Creux, M.D., Sara Henderson, M.Sc, Shaoguang Jin, Ph.D., Jin-Tae Chung, M.Sc. and William Buckett, M.D., Division of Reproductive Endocrinology and Infertility, McGill University Health Care Centre, Montreal, QC, Canada
- P-12 FEASIBILITY OF FERTILITY PRESERVATION IN PRE-PUBERTAL MALES SCHEDULED TO RECEIVE CHEMOTHERAPY.** Helen Levey Bernie, DO MPH, Elizabeth Schofield, MPH, Nicole Benfante, BS and John P. Mulhall, MD MSc FECSM FACS, Memorial Sloan Kettering Cancer Center, New York, NY
- P-13 FERTILITY PRESERVATION DISCUSSION IN CANCER PATIENTS IS UNDERUTILIZED AND VARIES BASED ON AGE.** Peter N Dietrich, MD, G Luke Machen, MD, Pranav Dadhich, MD, Johnathan Doolittle, MD and Jay I Sandlow, MD, Medical College of Wisconsin, Milwaukee, WI
- P-14 FERTILITY-SPARING TREATMENT (FST) AND ASSISTED REPRODUCTIVE TECHNOLOGY (ART) IN PATIENTS WITH ENDOMETRIAL CARCINOMA (EMCA) AND ENDOMETRIAL INTRAEPITHELIAL NEOPLASIA (EIN): PREGNANCY OUTCOMES AFTER EMBRYO TRANSFER (ET).** Hilary Friedlander, MD¹, Jennifer K Blakemore, MD², David H. McCulloh, Ph.D.³ and Mary Elizabeth Fino, MD⁴, ¹NYU School of Medicine, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³NYU Langone Health, New York, NY, ⁴NYU Langone Fertility Center, New York, NY
- P-15 OVARIAN STIMULATION IN CANCER PATIENTS: RANDOM VERSUS CONVENTIONAL START.** Andrea Natalia Coscia, MD¹, Mariana Miguens, M.D.¹, Mariana Cecilia Calvo, MD¹, Rocío Belén Anria, M.D.¹, Milfra Espinal, MD², Elayne Margarita Vasquez, MD¹ and Sergio D Papier Sr., M.D.¹, ¹CEGYR, Ciudad Autonoma de Buenos Aires, Argentina, ²Cegyr, Buenos Aires, Argentina



POSTER PRESENTATIONS AND ABSTRACTS

P-16 ADDED BENEFIT OF IMMATURE OOCYTE MATURATION FOR FERTILITY PRESERVATION IN WOMEN WITH MALIGNANCY. Yoni Cohen, M.D., Ph.D.¹, Samer Tannus, M.D.², Alexander Volodarsky-Perel, M.D.², Weon-Young Son, Ph.D.², Togas Tulandi, M.D.² and William Buckett, M.D.², ¹Reproductive center- IVF unit. Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, ²Division of Reproductive Endocrinology and Infertility, McGill University Health Care Centre, Montreal, QC, Canada

P-17 ACCESS TO FERTILITY-SPARING TREATMENT OF ENDOMETRIAL INTRAEPITHELIAL NEOPLASIA: REPRODUCTIVE OUTCOMES AND PATIENT SATISFACTION. Matthew Shear, MD¹, Alice Kennedy, BS¹, Hannah Stack-Dunbier, BS¹, Emily A Seidler, MD², Michele Hacker, ScD, MSPH³ and Katharine M Esselen, MD, MBA¹, ¹Beth Israel Deaconess Medical Center, Boston, MA, ²Boston IVF, Waltham, MA, ³Harvard Medical School, Boston, MA

P-18 LETROZOLE AND FERTILITY PRESERVATION IN PATIENTS WITH BREAST CANCER. Marouen Braham Sr., Associate professor¹, Sarah Amari, Medical Degree², Khadija Ferial Kacem Berjeb, Associate professor³, Haithem Khalil Sr., Doctorate in Medecine¹, Manel Hamdoun, Medical Degree⁴, Mounir Ben Meftah Sr., Medical Degree¹, Habiba Essoussi, Medical Degree³, Olfa Bahri Sr., Professor⁴, Anis Fadhlaoui, Associate Professor¹ and Fethi Zhioua, Pr¹, ¹Aziza Othmana University hospital, Tunis, Tunisia, ²Gynecology, Obstetric and Reproductive Medecine Department. Aziza Othmana University Hospital, Tunis, Tunisia, ³Reproductive Medecine Laboratory. Aziza Othmana University Hospital., Tunis, Tunisia, ⁴Biochemistry Department. Aziza Othmana University hospital., Tunis, Tunisia

CRYOPRESERVATION

P-19 OOCYTE YIELD WITH IMMEDIATE SUBSEQUENT OOCYTE CRYOPRESERVATION (OC) CYCLES COMPARED TO INTERVAL CYCLES. Bat-Sheva L Maslow, MD, MSCTR, Dayna Hennessy, MSN, NP-C, Michael M Guarnaccia, MD, MPH, Leslie B Ramirez, PhD and Joshua U Klein, MD, Extend Fertility, New York, NY

P-20 INITIAL VALIDATION OF AN AUTOMATED CRYOSTORAGE AND INVENTORY

MANAGEMENT SYSTEM. Timothy Allen Sharp, B.S.¹, William N Garbarini Jr., MBA², Chad A Johnson, PhD¹, Ann Watson, B.A.¹, Rachel Greenberg, B.A.¹ and Kathryn J Go, PhD¹, ¹TMRW Life Sciences, New York, NY, ²TMRW Life Sciences, Inc., New York, NY

P-21 CRYOPRESERVATION OF BOTH MALE AND FEMALE GAMETES LEADS TO REDUCED EMBRYO DEVELOPMENT AND IMPLANTATION POTENTIAL. Assumpto Iaconelli Jr., MD¹, Amanda Souza Setti, MSc¹, Daniela Paes de Almeida Ferreira Braga, PhD¹, Matheus de Castro Azevedo, BSc² and Edson Borges Jr., PhD¹, ¹Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil, ²Fertility Medical Group, Sao Paulo, Brazil

P-22 AUTOMATED VITRIFICATION FOR EMBRYO CRYOPRESERVATION: PRELIMINARY COMPARATIVE RESULTS AND FIRST LIVE BIRTH IN EUROPE. Mariabeatrice Dal Canto, BSci, PHD¹, Clarissa Moutier, BSci¹, Fausta Brambillasca, BSci, PHD², Maria Cristina Guglielmo, BSci, PHD¹, Alessandro Bartolacci, BSci¹, Mario Mignini Renzini, MD¹, Rubens Fadini, MD¹ and Jose Buratini, DVM, PHD¹, ¹Biogenesi Reproductive Medicine Centre, Monza, Italy, ²Biogenesi Reproductive medicine Center, Monza, Italy

P-23 PROLONGED SEMEN CRYOPRESERVATION DECREASES MOTILE CONCENTRATION. Rhodel Simbulan, MS, Emani Harris, BS, Fleurdeliza Rabara, BS, CLS, Sean Pae, BS, MS, Fang Xie, PhD, Liza Jalalian, BS, CLS and Mitchell P Rosen, MD, HCLD, University of California San Francisco, San Francisco, CA

P-24 EMBRYOS FROZEN WITHIN A SHORT TIME OF REACHING THE EXPANDED BLASTOCYSTS FROM THE EARLY BLASTOCYSTS HAVE HIGH VIABILITY: TIME-LAPSE INVESTIGATION OF 5177 BLASTOCYSTS. Yuki Kobayashi, B.A., Rie Matsunaga, M.A., Hiromi Morita, M.A., Rui Hasegawa, B.A., Kana Isobe, B.A., Megumi Miura, M.A., Minako Kamihata, B.A., Shinichi Watanabe, DVM, Tomoko Maeda, Ph.D., Hiroshi Makino, Ph.D., Masanori Ochi, Ph.D. and Toshitaka Horiuchi, Ph.D., OCHI YUME CLINIC NAGOYA, Nagoya, Japan

P-25 THE TWO-STEP ASYNCHRONOUS VITRIFIED-THAWED BLASTOCYST EMBRYO TRANSFER STRATEGY. THE IMPACT ON MULTIPLE PREGNANCY RATE. Viktor Veselovskyy, MD, Nadiya Clinic, Kyiv, Ukraine



POSTER PRESENTATIONS AND ABSTRACTS

P-26 IMPACT OF EQUILIBRATION DURATION DURING OOCYTE VITRIFICATION PROTOCOL: PRELIMINARY RESULTS OF A PROSPECTIVE OBSERVATIONAL STUDY. Charlene Herbemont, Pharm.D.¹, Isabelle Cedrin-Durnerin, M.D.², Michael Grynberg, M.D., Ph.D.² and Christophe Sifer, M.D.², ¹Jean Verdier Hospital, Bondy, France, ²Jean Verdier Hospital, Bondy, France

P-27 COMPARATIVE STUDY OF FERTILITY PARAMETERS IN VITRIFIED HUMAN SPERM IN THE PRESENCE AND ABSENCE OF EMBRYOP®: A NOVEL ANTIOXIDANT. César Rodrigo Coria, College degree¹, Paulina Torres, Master Degree¹, Lina Villar Sr., MD², Israel Maldonado, MD², Israel Jiménez Sr., MD¹ and Claudia Lydia Treviño, PhD¹, ¹Instituto de Biotecnología, Cuernavaca, MR, Mexico, ²Clínica de Reproducción Asistida en la Ciudad de México, Ciudad de México, DF, Mexico

P-28 IS THE INCREASE IN EGG FREEZING CYCLES RELATED TO INCREASED NUMBERS OF SINGLE WOMEN IN THE UNITED STATES? Alexandra Peyser, M.D. and Avner Hershlag, M.D., Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY

P-29 THE IMPACT OF THE SHORT-TERM HUMAN SPERM STORAGE IN THE CRYOPROTECTANT-FREE MEDIUM ON SPERM MOTILITY AND VITALITY. Nabil Sayme, Dr. med.¹, Marija Kljajic, Master of Biology Science², Thomas Krebs, Biology¹ and Dieter Maas, Prof. Dr. med.¹, ¹Team Kinderwunsch Hannover, Hannover, Germany, ²Saarland University Medical Center, Homburg, Germany

CRYOPRESERVATION RATES COMPARED TO FROZEN OOCYTE CYCLES IN AN EGG-SHARING DONATION PROGRAMME. Amanda Souza Setti, MSc¹, Daniela Paes de Almeida Ferreira Braga, PhD¹, Matheus de Castro Azevedo, BSc², Assumpto Iaconelli Jr., MD¹ and Edson Borges Jr., PhD¹, ¹Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil, ²Fertility Medical Group, Sao Paulo, Brazil

P-33 DONOR DIALOGUE: A CROSS-SECTIONAL ASSESSMENT OF LONG-TERM MEDICAL AND PSYCHOLOGICAL HEALTH STATUS AFTER ELECTIVE OOCYTE DONATION. Jennifer K Blakemore, MD¹, Paxton E Voigt, BA², Mindy R Schiffman, PhD³, Shelley Lee, PhD³ and Mary Elizabeth Fino, MD³, ¹NYU Langone School of Medicine, New York, NY, ²NYU School of Medicine, New York, NY, ³NYU Langone Fertility Center, New York, NY

P-34 IS PATERNAL AGE PLAYING A MAJOR ROLE IN OOCYTE DONATION PROGRAM? Pamela E. Villanueva, MD. PhD¹, Luis Noriega-Hoces, MD.¹, Fabrizio Vizcarra, MD.¹, Jazmin Meza, BSc.², Luis Noriega-Portella, MD.¹ and Luis Guzman, PhD.², ¹Doctor, Lima, Peru, ²Embryologist, Lima, Peru

EMBRYO CULTURE

P-35 PROSPECTIVE RANDOMIZED MULTICENTER STUDY ON CULTURE OF SIBLING HUMAN OOCYTES IN A SEQUENTIAL MEDIA SYSTEM WITH AND WITHOUT ANTIOXIDANTS : THE EFFECT OF FEMALE AGE. Shigetoshi Mizumoto, Ph.D.¹, Atsumi Yoshida, M.D, Ph.D., MBA², Takeshi Kuramoto, M.D., Ph.D.¹, Miho Tanaka, M.Sc.², Markus HM Montag, Ph.D.³ and David Gardner, Ph.D.⁴, ¹Kuramoto Women's Clinic, Fukuoka, Japan, ²Kiba Park Clinic, Tokyo, Japan, ³ilabcomm GmbH, Eisenachstr, Sankt Augustin, Germany, ⁴School of BioSciences, University of Melbourne, Melbourne, VIC, Australia

P-36 MODELING OF AIRBORNE EMBRYOTOXIC VOLATILE ORGANIC COMPOUNDS (VOCs) IN THE IVF CULTURE ENVIRONMENT – THEIR CONCOMITANT CYTOTOXIC CONCENTRATION WITHIN THE GROWTH MEDIA AND EMBRYO. Kathryn Colonna WorriLOW, Ph.D.¹, Alicia R. Urrutia, B.S.¹, Huey T. Huynh, M.S.¹ and John T. Fox, Ph.D.², ¹LifeAire Systems, Allentown, PA, ²Lehigh University, Bethlehem, PA

DONOR GAMETES

P-30 CHANGES IN U.S. UTILIZATION OF DONOR EGG IVF CYCLES AT DIFFERENT FEMALE AGES BETWEEN 2005-2016. Norbert Gleicher, MD, Sarah K Darmon, PhD, David F Albertini, PhD and David H Barad, MD, MS, Center for Human Reproduction, New York, NY

P-31 DONOR OOCYTE PREGNANCIES AND FETAL FRACTION: MANAGING PATIENT EXPECTATIONS AND PROVIDING ACCURATE INFORMATION. Melissa K Maisenbacher, MS, Georgina Goldring, MS, Wendy DiNonno, MS and Allison Ryan, PhD, Natera, San Carlos, CA

P-32 FRESH OOCYTE CYCLES YIELD IMPROVED EMBRYO QUALITY AND SURPLUS EMBRYO



POSTER PRESENTATIONS AND ABSTRACTS

P-37 RANDOMIZED STUDY OF EMBRYO COMPETENCE AND DEVELOPMENTAL POTENTIAL IN GLOBAL BLASTOCYST MEDIUM AND G-TL MEDIUM, DESIGNED FOR TIME LAPSE. Nina Desai, Ph.D., HCLD¹, Jeffrey M Goldberg, M.D.², Rebecca Flyckt, MD¹, Marjan Attaran, M.D.¹, Julie Tantibhedhyangkul, M.D.¹ and Cynthia M Austin, M.D.¹, ¹Cleveland Clinic, Beachwood, OH, ²Cleveland Clinic, Cleveland, OH

P-38 3D GYRATORY ROCKER MAY ACCELERATE EMBRYONIC ZO1 EXPRESSION AND FURTHER EMBRYONIC DEVELOPMENT IN MOUSE EMBRYOS. Sook Young Yoon, Ph.D.¹, Miseon Park, Master², Jin Hee Eum, Ph.D.¹, Jin Young Kim, M.D. Ph.D.³ and Woo Sik Lee, M.D. Ph.D.¹, ¹Fertility Center of CHA Gangnam Medical Center, Seoul, Korea, Republic of (South), ²Affiliation not provided, ³CHA Fertility Center Gangnam Medical Center, Seoul, Korea, Republic of (South)

P-39 GROUP EMBRYO CULTURE STRATEGIES AFFECT THE OXIDATIVE STATUS OF THE SPENT CULTURE MEDIA AND EMBRYO DEVELOPMENT RESULTS. Lorena Bori, PhD¹, Raquel Del Gallego, PhD¹, Lucia Alegre, PhD¹, Silvia Azaña, MSc¹, Tamara Viloria, PhD¹ and Marcos Meseguer, PhD², ¹IVIRMA Global, Valencia, Spain, ²IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

P-40 THE EFFICACY OF THE NEW EMBRYO CULTURE MEDIUM WHICH DESIGNED FROM THE COMPONENTS OF HUMAN TUBAL FLUID; PROSPECTIVE RANDOMIZED TRIAL. Takafumi Utsunomiya, M.D., Ph.D., Yoko Kumasako, PhD, Eiko Otsu, PhD, Yufuko Kai, M.D., Ph.D., Yuichi Furukawa, M.D., Ph.D. and Hiroko Itoh, M.D., Ph.D., St.luke Clinic, Oita, Japan

P-41 A NOVEL ZONA-FREE CULTURE SYSTEM FOR SEVERE CYTOPLASMIC FRAGMENTATION CASES: A PILOT STUDY USING 3PN EMBRYOS AND TIME-LAPSE CINEMATOGRAPHY. Keitaro Yumoto, B.S.¹, Toko Shimura, B.S.¹, Minako Sugishima, B.S.² and Yasuyuki Mio, MD. PHD¹, ¹Mio Fertility Clinic, Yonago, Japan, ²Japan

P-42 TYPE OF CULTURE MEDIUM IS ASSOCIATED WITH PREIMPLANTATION EMBRYO DEVELOPMENT. Linette van Duijn, MD¹, Melek Rousian, MD, PhD¹, Eva S. van Marion, MD², Joop S.E. Laven, MD, PhD², Régine P.M. Steegers-Theunissen, MD, PhD¹ and Esther B. Baart, PhD³, ¹Erasmus University Medical Centre, Rotterdam, Netherlands,

²Erasmus University Medical Center, Rotterdam, Netherlands, ³Erasmus MC University Medical Center, Rotterdam, Netherlands

P-43 BLASTULATION AND GOOD BLASTULATION BETWEEN DAYS 5 AND 6 OF EXTENDED EMBRYO CULTURE. Edward B Nguyen, MD, PhD¹, Emily A Jacobs, MD², Violet E Klenov, MD¹, Karen M Summers, MPH CHES², Amy E Sparks, PhD³, Bradley J Van Voorhis, MD⁴ and Eyup Hakan Duran, MD², ¹University of Iowa Hospitals and Clinics, Iowa City, IA, ²University of Iowa, Iowa City, IA, ³University of Iowa Center for Advanced Reproductive Care, Iowa City, IA, ⁴University of Iowa Carver College of Medicine, Iowa City, IA

P-44 EMBRYO CULTURE IN TIME-LAPSE SYSTEM PROVIDES BETTER RATES OF BLASTOCYST FORMATION, DECREASES EMBRYO DEVELOPMENT ARREST RATE COMPARED TO TRADITIONAL TRIPLE-GAS CULTURE SYSTEM. Mariana Nicolielo, BSc¹, Catherine Jacobs, BSc¹, Andrea Belo, BSc¹, Ana Paula Reis, BSc¹, Renata Erberelli, BSc¹, Fabiana Mendez, BSc¹, Marina Fanelli, BSc¹, Livia Cremonesi, BSc¹, Paulo Cesar Serafini, MD, PhD², Eduardo LA Motta, MD, PhD², Aline R Lorenzon, PhD³ and Jose Roberto Alegretti, MSc¹, ¹Huntington Medicina Reprodutiva, Sao Paulo, Brazil, ²Huntington Medicina Reprodutiva, Clinical Department, São Paulo, Brazil, ³Scientific Coordinator, Huntington Medicina Reprodutiva, Sao Paulo, Brazil

EMBRYO PHYSIOLOGY

P-45 INHIBITION OF LINE-1 TRANSPOSITION BLOCKS TELOMERE ELONGATION AND DOWNREGULATES TOTIPOTENCY GENES DURING MOUSE EMBRYO DEVELOPMENT. Isaac J. Chamani, B.A.¹, Fang Wang, PhD², Danxia Luo, MD², Paula Andrea Navarro, MD², Vanessa Lynn Cortes, B.A.² and David L. Keefe, M.D.², ¹New York University School of Medicine, New York, NY, ²New York University School of Medicine, Department of Obstetrics and Gynecology, New York, NY

P-46 HYPERGLYCOSYLATED HUMAN CHORIONIC GONADOTROPIN IN BLASTOCYST CULTURE MEDIUM OF MALE AND FEMALE HUMAN EMBRYOS. Georgi Stamenov Stamenov, MD/PhD¹, Kristina Nikolova, MSc¹, Magdalena



POSTER PRESENTATIONS AND ABSTRACTS

Vasileva, MSc¹, Ivaylo Rangelov, MSc¹, Rumiana Ganeva, MSc¹, Maria Pancheva, MSc¹, Maria Serafimova, MSc¹, Rada Staneva, MD, PhD¹, Savina Hadjidekova, MD/PhD², Fabio Scarpellini, MD³ and Dimitar Parvanov, PhD¹, ¹Nadezhda Women's Health Hospital, Sofia, Bulgaria, ²Department of Medical Genetics, Medical University of Sofia, Sofia, Bulgaria, ³Centre for Endocrinology and Reproductive Medicine, Rome, Italy

P-47 STUDY ON THE RELATIONSHIP BETWEEN PRONUCLEAR PROXIMITY IN ZYGOTE AND MULTINUCLEATION OF EARLY CLEAVAGE EMBRYOS IN HUMAN USING TIME-LAPSE SYSTEM. So Young Kim, M.S., Sojung Kwon, PhD, Soyoung Bang, M.S., Wonyun Choi, PhD, Jin Hee Eum, Ph.D, Hyunjin Kim, M.D., Han Moie Park, M.D.Ph.D., Jin Young Kim, M.D. Ph.D, Eun Mi Chang, M.D. and Woo Sik Lee, MD, Fertility Center of CHA Gangnam Medical Center, Seoul, Korea, Republic of (South)

P-48 OXIDATIVE STRESS IN HUMAN TESTICULAR TISSUE BEFORE AND AFTER CRYOPRESERVATION: A COMPARATIVE STUDY. Alaa Moubasher, MD¹, Hanan Morsy, MD², Aya Hassan Younis, MD², Mikel Effat, MD³ and Emad Taha, MD², ¹Assiut University, Assiut, Egypt, ²Affiliation not provided, ³Assiut University, Biochemistry departement, Assiut, Egypt

P-49 SELF-CORRECTION OF ANEUPLOIDY IN HUMAN BLASTOCYSTS AND SELF-ORGANIZING GASTRULOIDS . Tiago Rito, PhD¹, Jeff Naftaly, BA¹, Norbert Gleicher, MD² and Ali H Brivanlou, PhD¹, ¹Rockefeller University, New York, NY, ²Center for Human Reproduction, New York, NY

P-50 EMBRYO RESPIRATION TO EVALUATE THE EMBRYO QUALITY AND VIABILITY, AND ITS CLINICAL OUTCOME. Atsushi Fukui, MD, PhD, Yuji Ukita, MD, Ryu Takeyama, MD, Toru Kato, MD and Hiroaki Shibahara, MD, PhD, Hyogo College of Medicine, Nishinomiya, Hyogo, IL, Japan

P-51 REPLICATION STRESS LIMITS DEVELOPMENTAL POTENTIAL OF HUMAN PREIMPLANTATION EMBRYOS. Katherine L. Palmerola, MD¹, Eric J. Forman, MD¹, Rogerio A. Lobo, MD¹ and Dieter M. Egli, PhD², ¹Columbia University Fertility Center, New York, NY, ²Division of Molecular Genetics, Department of Pediatrics and Naomi Berrie Diabetes Center, New York, NY

P-52 THE EFFECT OF ZONA PELLUCIDA THICKNESS VARIATION ON FERTILIZATION AND SUBSEQUENT EMBRYONIC DEVELOPMENT: A LARGE SINGLE CENTER COHORT STUDY. Makiko Kawakami, M.S., Tadashi Okimura, B.S., Kazuo Uchiyama, M.T., Akiko Yabuuchi, Ph.D., Tamotsu Kobayashi, M.D. and Keiichi Kato, M.D., Ph.D., Kato Ladies Clinic, Tokyo, Japan

P-53 IDENTIFICATION OF NUCLEOLAR CHANNEL SYSTEMS (NCSS) IN ENDOMETRIAL SECRETIONS AT THE TIME OF FROZEN EMBRYO TRANSFER IN ARTIFICIAL CYCLES WITH SUCCESSFUL IMPLANTATION. Rachel S Gerber, MD¹, Erkan Buyuk, MD¹, Harry Lieman, MD¹ and U. Thomas Meier, Ph.D.², ¹Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ²Dept. of Anatomy & Structural Biology, Albert Einstein College of Medicine, Bronx, NY

P-54 SINGLE-CELL MITOCHONDRIAL STAINING OF HUMAN BLASTOCYSTS. Taraneh Gharib Nazem, MD¹, Kristin Beaumont, PhD¹, Christine Britton-Jones, PhD, HCLD², Joseph A. Lee, BA², Robert P. Sebra, PhD³ and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY, ³Sema4, a Mount Sinai Venture, Stamford, CT

P-55 COMPARATIVE ANALYSIS OF DNA METHYLATION IN EUPLOID AND ANEUPLOID HUMAN EMBRYOS USING REDUCED REPRESENTATION BISULFITE SEQUENCING. Xin Tao, Ph.D¹, Yiping Zhan, Ph.D², Katherine Scott, MS³, Richard Thomas Scott Jr., MD⁴ and Emre Seli, M.D.⁴, ¹The Foundation for Embryonic Competence, Basking Ridge, NJ, ²Foundation for Embryonic Competence, Basking Ridge, NJ, ³IVI-RMA Southern California, Los Angeles, CA, ⁴IVI-RMA New Jersey, Basking Ridge, NJ

P-56 MATERNAL AGE AND BLASTOCYST QUALITY DO NOT INFLUENCE THE EMBRYO PRODUCTION OF HYPERGLYCOSYLATED HUMAN CHORIONIC GONADOTROPIN. Dimitar Parvanov, PhD¹, Dragomira Nikolova, PhD², Rumiana Ganeva, MSc¹, Kristina Nikolova, MSc¹, Magdalena Vasileva, MSc¹, Ivaylo Rangelov, MSc¹, Fabio Scarpellini, MD³ and Georgi Stamenov Stamenov, MD/PhD¹, ¹Nadezhda Women's Health Hospital, Sofia, Bulgaria, ²Department of Medical Genetics, Medical Faculty, Medical University – Sofia, Sofia, Bulgaria, ³Centre for Endocrinology and Reproductive Medicine, Rome, Italy



POSTER PRESENTATIONS AND ABSTRACTS

P-57 EVALUATING THE ABILITY OF AN OOCYTE TO REPAIR FRAGMENTED SPERM CHROMATIN. Derek Keating, B.A., Alessandra Parrella, M.Sc., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-58 THE MITOCHONDRIAL DNA QUANTIFICATION IN CUMULUS CELLS AND IMPLANTATION POTENTIAL OF EMBRYOS. Anna Korolkova, MD¹, Nona Mishieva, PhD¹, Bella Martazanova, PhD¹, Yulia Kiseleva, PhD², Evgeniya Kovalskaya, MSc², Olga Burmenskaya, PhD³, Aydar Abubakirov, PhD¹ and Tatiana Kodyleva, MSc², ¹Reproductive endocrinology, Moscow, Russian Federation, ²Embryologist, Moscow, Russian Federation, ³Genetic, biology, Moscow, Russian Federation

P-59 DYNAMIC AND VIABILITY OF HUMAN DAY-6 TROPHECTODERM CELLS DURING 141 DAYS OF CELL CULTURE. Oscar Perez, Ph.D.¹, Hannalie Adriaanse, BS¹, Breanna Tilley, MSc¹, Gabriella Navarrete, BS¹, Ravi Gada, MD², Laura Lawrence, MD², Mika R Thomas, MD², Karen Lee, MD² and Samuel Chantilis, MD², ¹Dallas Fertility Center, Dallas, TX, ²Dallas Fort Worth Fertility Associates, Dallas, TX

P-60 IS LOW MITOCHONDRIAL DNA (mtDNA) CONTENT AFTER FERTILIZATION FAILURE DUE TO OOCYTE AGING IN CULTURE? Marta Pérez, PhD student¹, Amparo Mercader, PhD², Diana Beltrán, Master², Arantza Delgado, PhD², Laura Escrich, PhD², Antonio Pellicer, MD, PhD³, Carmen Vidal, M.D., Ph.D.² and M^a José de los Santos, PhD², ¹IVI foundation, Instituto de Investigación Sanitaria la Fe, Valencia, Spain, ²IVIRMA Valencia, Valencia, Spain, ³IVIRMA ROMA, Roma, Italy

P-61 DO MALE EMBRYOS GROW FASTER THAN FEMALE EMBRYOS? Musang Liu, BS¹, Samuel Yongxin Sun, Ph.D.², Li Li, BS³, Jing Xu, BS³, Tetyana Nesterchuk, MS³ and Preston Sacks, MD³, ¹Columbia Fertility Associates, Washington DC, DC, ²Columbia Fertility Associates, Falls Church, VA, ³Affiliation not provided

P-62 TROPHECTODERM CELL DEVELOPMENT FROM DAY-6 HUMAN BLASTOCYSTS. IS IT POSSIBLE TO REPRODUCE THEM IN VITRO? Oscar Perez, Ph.D.¹, Hannalie Adriaanse, BS¹, Breanna Tilley, MSc¹, Gabriella Navarrete, BS¹, Linda Lay, BS¹, Lucille M Little, BS¹, Ravi Gada, MD², Laura Lawrence, MD², Karen Lee, MD², Mika

R Thomas, MD² and Samuel Chantilis, MD², ¹Dallas Fertility Center, Dallas, TX, ²Dallas Fort Worth Fertility Associates, Dallas, TX

P-63 CAN GROWTH HORMONE REALLY IMPACT ANEUPLOIDY RATES? Ruchi Kaushik Amin, MD¹, Lauren Grimm, MA², Elisabeth Rosen, BS, MA², Angeline Beltsos, MD² and Roohi Jeelani, MD², ¹Wayne State University, Detroit, MI, ²Vios Fertility Institute, Chicago, IL

ENDOMETRIAL PHYSIOLOGY

P-64 THE INFLUENCE OF HYPOXIA ON ANGIOGENESIS AND METABOLISM IN HUMAN ENDOMETRIAL STROMAL CELLS. Hidetaka Okada, MD and Takeharu Kido, MD, Kansai Medical University, Hirakata, Japan

P-65 DOES THE ENDOMETRIUM HAVE A ROLE IN SELECTING EMBRYO GENDER? Javier Herreros Sr., MSc, Hector Huete Ferriz, MSc, Mireia Florensa, MSc and Marga Esbert, PhD, IVI RMA Barcelona, Barcelona, Spain

EUPLOID EMBRYO PREDICTORS

P-66 THE ASSOCIATION OF AGING MARKERS IN LUTEINIZED GRANULOSA CELLS AND EMBRYO ANEUPLOIDY RATE IN PREIMPLANTATION GENETIC TEST FOR ANEUPLOIDY CYCLES. Tsung-Hsien Lee, MD, PhD¹, En-Hui Cheng, PhD² and Maw-Sheng Lee, MD, PhD³, ¹Chung Shan Medical University Hospital, Taichung, Taiwan, ²Lee Women's Hospital, Taichung, Taiwan, ³Chung Shan Medical University, Taichung, Taiwan

P-67 BLASTOCYST PLOIDY IS NOT RELATED TO THE NUMBER OF EMBRYOS GENERATED NOR TO THE TYPE OF OVARIAN STIMULATION. Sandro C Esteves, M.D., Ph.D.¹, Peter Humaidan, M.D., Ph.D.², José F. Carvalho, Ph.D.³, Danilo Cimadomo, PhD⁴, Alberto Vaiarelli, MD⁴, Hakan Yarali, M.D.⁵, Irem Y Ozbek, PhD⁵, Thor Haahr, MD², Alessandro Conforti, MD⁶, Carlo Alviggi, MD, PhD⁶ and Filippo Maria Ubaldi, M.D., Ph.D.⁴, ¹Medical Director, Campinas, Brazil, ²The Fertility Clinic, Skive Regional Hospital, Skive, Denmark, ³Statistika Consulting, Campinas, Brazil, ⁴GENERA, Center for Reproductive Medicine, Rome, Italy, ⁵Anatolia IVF, Ankara, Turkey, ⁶Department of Neuroscience, University of Naples Federico II, Naples, Italy



POSTER PRESENTATIONS AND ABSTRACTS

P-68 THE IMPACT OF LEAD FOLLICLE SIZE AND DURATION OF STIMULATION ON THE PROBABILITY OF EUPLOID EMBRYOS. Denis Schapira Wajman, MD¹, David L. Keefe, M.D.², David H. McCulloh, Ph.D.³, James A. Grifo, MD, PhD³ and Cheongeun Oh, PhD¹, ¹NYU Langone, New York, NY, ²New York University School of Medicine, Department of Obstetrics and Gynecology, New York, NY, ³NYU Langone Fertility Center, New York, NY

P-69 EXOGENOUS GONDOTROPIN USE NOT ASSOCIATED WITH INCREASE IN ANEUPLOIDY OF IN VIVO RECOVERED BLASTOCYSTS. Steven T Nakajima, MD¹, Sam Najmabadi, MD², Santiago Munne, PhD³, Alex Nadal, BA⁴, Kajal Choudhary, PhD⁴ and John E. Buster, MD⁴, ¹Stanford University School of Medicine, Stanford, CA, ²Punta Mita Hospital, Punta Mita Fertility Center/Center for Reproductive Health and Gynecology, Punta de Mita, NA, Mexico, ³Overture Life, Madrid, Spain, ⁴Previvo Genetics Inc., San Carlos, CA

P-70 ADJUVANT GROWTH HORMONE USE IMPROVES EUPLOID RATE IN WOMEN UNDERGOING IVF/PGT-A WHO ARE NOT POOR RESPONDERS. Whitney A. Leonard, MD - PGY2¹, Winifred Mak, MD, Ph.D², Amanda Skillern, MD, FACOG³ and Jordyn Pike, MPH⁴, ¹University of Texas Dell Medical School, Dept of Women's Health, Austin, TX, ²University of Texas Dell Medical School, Women's Health, Austin, TX, ³Aspire Austin, Austin, TX, ⁴University of Texas Dell Medical School, Women's Health, Austin, TX

P-71 EMBRYO EUPLOIDY RATES DIFFER IN SAME-SEX MALE COUPLES UTILIZING A SINGLE OVUM DONOR. Nasario E. Ramos, BS¹, Deborah E. Johnson, MA¹, Zachary Haimowitz, BS¹, Mark W. Surrey, MD², Hal C. Danzer, MD², Shahin Ghadir, MD², Wendy Y. Chang, MD², Carolyn J. Alexander, MD² and Jason A. Barritt, PhD¹, ¹ART Reproductive Center, Beverly Hills, CA, ²Southern California Reproductive Center, Beverly Hills, CA

P-72 ANEUPLOIDY RATE IN BRCA CARRIERS IS SIMILAR TO AGE-MATCHED INFERTILE WOMEN. Maria Facadio Antero, MD¹, Mindy S. Christianson, MD² and William G. Kearns, MD, PhD³, ¹John Hopkins University School of Medicine, Lutherville, MD, ²John Hopkins University School of Medicine, Lutherville, OR, ³Johns Hopkins University School of Medicine, Advagenix, 9430 Key West Hwy, Suite 130, MD

P-73 SUBOPTIMAL STIMULATION IS PREDICTIVE OF INCREASED ANEUPLOIDY AND REDUCED PREGNANCIES PER CYCLE START. John B. Whitney, BS¹, Robert E. Anderson, MD² and Mitchel C. Schiewe, MS, PhD¹, ¹Ovation Fertility, Newport Beach, CA, ²SCCRM, Newport Beach, CA

FERTILITY PRESERVATION

P-74 ESTIMATES OF INFERTILITY IN AN ERA OF INCREASING STI RATES, 2002-2015. Morgan Snow, BA¹, Tyler McClung, BS, MS², Maria Trent, MD, MPH¹ and Jamie Perin, PhD¹, ¹Johns Hopkins School of Medicine, Baltimore, MD, ²Johns Hopkins University, Baltimore, MD

P-75 FERTILITY PRESERVATION FOR SOCIAL REASONS IN A POPULATION OF OLDER WOMEN. ¿MYTH OR REALITY? Raymond Joseph Osés, MD, Alberto Valcarcel, PhD, Marisa Tiveron, MS, Mercedes Leticia Guidobono, MS, Macarena Felici, MS, Soledad Bouzas, MS and Alberto Kenny, MD, IFER, Ciudad Autónoma de Buenos Aires, Argentina

P-76 THE QUANTIFICATION OF RESIDUAL CRYOPROTECTANTS IN THE THAWED OVARIAN TISSUE FOR OVARIAN TISSUE TRANSPLANTATION. Yodo Sugishita, M.D., Ph.D.¹, Yuki Suzuki, M.D., Ph.D.¹, Sandy Nishimura, Ms.¹, Meng Lingbo, M.D.², Atsushi Uekawa, Ph.D.², Akiko Tozawa, M.D., Ph.D.² and Nao Suzuki, M.D., Ph.D.², ¹St. Marianna University, School of Medicine, Kawasaki, Kanagawa, Japan, ²St. Marianna University, Kanagawa, Japan

P-77 EMPLOYER-BASED INSURANCE COVERAGE DRAMATICALLY INCREASES UTILIZATION OF PLANNED OOCYTE CRYOPRESERVATION. Arielle S. Yeshua, MD, Christine Mullin, M.D., Avner Hershlag, M.D., Tomer Singer, MD and Randi H. Goldman, M.D., Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY

P-78 OOCYTE VITRIFICATION FOR ANTICIPATED GAMETE EXHAUSTION (AGE -BANKING) - A SYSTEMATIC REVIEW AND META-ANALYSIS OF SOCIAL TRENDS AND EFFICACY. Shira Baram, MD¹, Noga Fuchs Weizman, MD¹, Janice Montbriand, Ph.D² and Clifford Lawrence Librach, MD¹, ¹CreAtE Fertility



POSTER PRESENTATIONS AND ABSTRACTS

Centre, Toronto, ON, Canada, ²Department of Obstetrical Anesthesia, Sunnybrook Health Sciences Centre, Toronto, ON, Canada

- P-79 FERTILITY PRESERVATION: FROZEN IN TIME?** Stephanie R Baum, MD¹, Randi H. Goldman, M.D.², Tomer Singer, MD³ and Christine Mullin, M.D.⁴, ¹Lenox Hill Hospital - Northwell Health, New York, NY, ²Northwell Health Fertility, Manhasset, NY, ³NY, ⁴Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY

- P-80 PROVIDING PATIENTS WITH SUBSIDIZED FERTILITY PRESERVATION SERVICES IMPROVES ACCESS TO CARE.** Lauren T Bouchard, MD¹, Kristin Van Heertum, MD², Amelia Baffa, MSN, RN, PMHNP-BC³, Kathryn D Coyne, MD⁴, Daniel L Kuhr, MD⁵, James Goldfarb, MD, MBA⁶ and Rachel S Weinerman, MD², ¹University Hospital Cleveland Medical Center, Case Western Reserve University, Cleveland, OH, ²University Hospitals Fertility Center/Case Western Reserve University, Beachwood, OH, ³University Hospitals of Cleveland Rainbow Babies & Children's Hospital, Cleveland, OH, ⁴University Hospitals Cleveland Medical Center, Cleveland, OH, ⁵Department of Obstetrics and Gynecology, University Hospitals Cleveland Medical Center, Case Western Reserve University, Cleveland, OH, ⁶OH

- P-81 SPERM CRYOPRESERVATION FOR FERTILITY PRESERVATION IN MEN WITH NON-MALIGNANT DISEASES.** Teppei Takeshima, M.D., Shinnosuke Kuroda, M.D and Yasushi Yumura, Ph.D., Yokohama City University, Medical Center, Yokohama, Japan

- P-82 EQUAL OPPORTUNITY FOR ALL? AN ANALYSIS OF RACE AND ETHNICITY IN FERTILITY PRESERVATION (FP) IN A MAJOR AMERICAN CITY** Paxton E Voigt, BA¹, Jennifer K Blakemore, MD², David H. McCulloh, Ph.D.³ and Mary Elizabeth Fino, MD⁴, ¹NYU School of Medicine, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³NYU Langone Health, New York, NY, ⁴NYU Langone Fertility Center, New York, NY

- P-83 WHAT IS IMPORTANT TO WOMEN CONSIDERING FERTILITY PRESERVATION BEFORE CANCER TREATMENT? COMPARING DECISION-MAKING VALUES WITH AND WITHOUT USING THE PATHWAYS PATIENT DECISION AID WEBSITE**

Sukhkamal Campbell, MD¹, Aubri Hoffman, PhD², June Weston, Sr Research Coordinator², Laura Covarrubias Crocker, MSPH², Deborah Holman, CRNP², Ashley Housten, MSCI, OTD², Robert Volk, PhD² and Terri Woodard, MD¹, ¹Baylor College of Medicine, Houston, TX, ²The University of Texas MD Anderson Cancer Center, Houston, TX

- P-84 ELECTIVE OOCYTE CRYOPRESERVATION COUNSELING TOOL BASED ON NEXT GENERATION SEQUENCING RESULTS.** Mariana Miguens, M.D.¹, Andrea Natalia Coscia, MD¹, Daniela Lorenzi, B.Sc.², Melina Elena Bilinski, B.Sc.², Mariana Cecilia Calvo, MD¹, Rocío Belén Anria, M.D.¹, Milfra Espinal, MD¹ and Sergio D Papier Sr., M.D.¹, ¹CEGYR, Ciudad Autonoma de Buenos Aires, Argentina, ²NOVAGEN, Ciudad Autonoma de Buenos Aires, Argentina

IN-VITRO OOCYTE MATURATION

- P-85 ENHANCING REPRODUCTIVE OPPORTUNITIES: THE BIOLOGIC POTENTIAL OF VITRIFIED IN-VITRO MATURED OOCYTES.** Carlos Hernandez-Nieto, MD¹, Christine Briton-Jones, PhD, HCLD¹, Daniel E. Stein, MD², Tanmoy Mukherjee, MD¹, Benjamin Sandler, M.D.¹ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

- P-86 SUPPLEMENTING IN-VITRO MATURATION MEDIA WITH HUMAN FOLLICULAR FLUID IMPROVES BOTH THE MATURATION RATE OF MOUSE IMMATURE OOCYTES AND THE SUBSEQUENT EMBRYONIC DEVELOPMENT.** Takashi Horikawa, MD¹, Yasuyuki Araki, Ph.D.², Koji Nakagawa, MD, PhD¹, Keiji Kuroda, MD, PhD¹, Satoru Takamizawa, MD, PhD¹, Yuichi Sato, MD., PhD.³ and Rikikazu Sugiyama, MD, PhD¹, ¹Sugiyama Clinic Shinjuku, Tokyo, Japan, ²The Institute for Advanced Reproductive Medical Technology, Maebashi, Gunma, Japan, ³Takasaki ART clinic, Takasaki, Japan

- P-87 IN VITRO OOCYTE MATURATION (IVM) IS A SUCCESSFUL ART OPTION FOR PCOS PATIENTS.** Terry Schlenker, BSc, MA, MT, Rebecca Kile, MS, Rachel Makloski, RN, Ann Schneiderman, BS, Sue McCormick, BS, William B Schoolcraft, MD and Rebecca L. Krisner, PhD, Colorado Center for Reproductive Medicine, Lone Tree, CO



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P-88 THE TIMING OF THE RELEASE OF THE FIRST POLAR BODY PREDICTS THE CLEAVAGE RATE AFTER PARTHENOGENETIC ACTIVATION FOR HUMAN OOCYTES OBTAINED BY IN VITRO MATURATION. Hiromitsu Shirasawa, Ph.D, M.D., Yukiyo Kumazawa, Ph.D., M.D., Wataru Sato, Ph.D., M.D., Kazumasa Takahashi, Ph.D. and Yukihiro Terada, Ph.D., M.D., Akita University Hospital, Akita, Japan

P-89 EMBRYOLOGIST FRIENDLY PROGRAMMED IVM WITH DELAYED BLASTOCYST TRANSFER. Bruce I Rose, MD, PhD, Kevin Nguyen, MS and Samuel Brown, MD, Brown Fertility LLC, Jacksonville, FL

IVF OUTCOME PREDICTORS - AGE

P-90 INCREASED PATERNAL AGE IS ASSOCIATED WITH DECREASED BLASTULATION AND EUPLOID RATES BUT NOT PREGNANCY OUTCOMES IN THE SETTING OF A EUPLOID SINGLE EMBRYO TRANSFER. Brent M Hanson, MD¹, Julia G Kim, MD, MPH¹, Emily K Osman, MD¹, Ashley W Tieg, MD², Shelby A Neal, MD¹, Ruth B Lathi, MD³, Richard Thomas Scott Jr., MD¹ and Jason M Franasiak, MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, ³Stanford Fertility and Reproductive Medicine Center, Sunnyvale, CA

P-91 ADVANCED PATERNAL AGE IS ASSOCIATED WITH AN INCREASED RISK FOR SEGMENTAL ABERRATIONS IN EMBRYOS DERIVED FROM YOUNG OOCYTE DONORS. Michal Dviri, MD¹, Svetlana Madjunkova, MD¹, Ran Antes, PhD¹, Rina Abramov, MSc¹, Jordana Mashiach, MD¹, Sergey Moskovtsev, MD² and Clifford Lawrence Librach, MD², ¹CRaTE fertility centre, Toronto, ON, Canada, ²CRaTE Fertility Centre, Toronto, ON, Canada

P-92 CLINICAL PREGNANCY OUTCOME ACCORDING TO AGE OF PATIENTS WITH HIGH PROPORTION OF FAILED OOCYTE MATURATION IN ICSI CASES. Yeon Sook Park, MS, Su Hyeon Kim, MS, Han Su Kim, MS, Jae Won Kim, M.D., Hee Sun Lee, M.D., Myung Hee Kim, M.D., Hyeon Jeong Jeong, M.D and Mi Kyung Chung, Ph.D, Seoul Rachel Fertility Center, Seoul, Korea, Republic of (South)

IVF OUTCOME PREDICTORS - EMBRYO CULTURE

P-93 IS THE NUMBER OF BLASTOCYST MORPHOLOGIC EVALUATIONS (BMA) ON DAY 6 CORRELATED WITH DAY 7 EMBRYONIC COMPETENCE? Jenna Friedenthal, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Christine Briton-Jones, PhD, HCLD², Alan B Copperman, MD¹ and Lawrence Grunfeld, MD², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-94 INFLUENCE OF POST-THAW EMBRYO CULTURE INTERVAL ON ASSISTED REPRODUCTION TECHNIQUES PREGNANCY RATES. Laudislina Colodetti, MD PhD¹, Patricia Pinho de França, PhD², Marcos Sampaio, MD PhD² and Selmo Geber, Professor¹, ¹Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, ²ORIGEN, Belo Horizonte, Brazil

P-95 USABLE BLASTOCYST DEVELOPMENT RATE IS INFLUENCED BY MATERNAL AGE AND ULTRA-LOW OXYGEN TENSION IN EXTENDED CULTURE. Alice Fournier, MD¹, Aneta Andreeva, RESIDENT¹, Anna Gala, MD², Sophie Brouillet, PharmD, PHD², Cecile Brunet, MD³, Claire Vincens, MD³ and Samir Hamamah, MD, PhD¹, ¹Arnaud de Villeneuve Hospital, CHU Montpellier, Montpellier, France, ²Inserm U1203, CHU Montpellier, St-Eloi Hospital, Montpellier, France, ³ART-PGD department, Arnaud de Villeneuve Hospital, CHU Montpellier, Montpellier, France

P-96 THE EFFECTS OF CO-CULTURE WITH AUTOLOGOUS CUMULUS CELL ON PREGNANCY OUTCOMES BY MATERNAL AGE. Dae-han Kim, Master, Jeong-Ho Cha, Ph.D., Sun-Hee Shin, Master, Yun-Jung Kim, Master, Seul-Ki Lee, Master, Ji-Hae Kim, Master, Hwa-Yeong Kim, Master, Seung-Hyun Back, Master, Ji-Hyun Ahn, M.D., Hye-Young Kim, M.D., Kyung-Ah Pak, M.D., Ji-Sung Yoon, M.D. and Seo-Young Park, M.D., Agaon fertility clinic, seoul, Korea, Republic of (South)

IVF OUTCOME PREDICTORS - EMBRYO TRANSFER

P-97 LIVE BIRTH RATES AFTER BLASTOCYST TRANSFERS PERFORMED BY FELLOWS. Dana B. McQueen, M.D., M.A.S.¹, Jared C Robins, MD¹, John Zhang, PhD² and Eve C. Feinberg, M.D.¹, ¹Northwestern University, Chicago, IL, ²Northwestern Medicine, Chicago, IL



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P-98 PREGNANCY OUTCOME AFTER BED REST VERSUS EARLY AMBULATION FOLLOWING EMBRYO TRANSFER DURING IVF/ICSI CYCLES-A RANDOMISED CONTROLLED STUDY.

Neena Malhotra, MD FRCOG¹ and Plabani Sarkar, MD², ¹All India Institute of Medical Sciences, New Delhi, India, ²Member AOGD, NEW DELHI, India

P-99 THE CONTINUED PUSH TOWARDS ELIMINATING TWIN PREGNANCY: THE CLINICAL IMPACT OF THE 2017 ASRM EMBRYO TRANSFER GUIDELINES.

Allison A Eubanks, MD¹, Anthony DeAngelis, MD, PhD², Mae W Healy, DO¹, Rhiana D. Saunders, MD¹, Saioa Torrealday, MD¹, Alan H Decherney, MD², Nanette Rollene, MD¹, John M Csokmay, MD¹ and Micah J Hill, DO¹, ¹Walter Reed National Military Medical Center, Bethesda, MD, ²Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD

P-100 HIGHER PREGNANCY RATES ARE OBSERVED AFTER SINGLE EUPLOID FROZEN EMBRYO TRANSFER UTILIZING TIME-LAPSE MONITORING TECHNOLOGY WHEN COMPARED TO TRADITIONAL EMBRYO INCUBATION.

Lauren W Sundheimer, MD, MS¹, Zachary Haimowitz, BS², Alin Lina Akopians, MD, PhD¹, Deborah E Johnson, MA², Wendy Y Chang, MD¹, Mark W Surrey, MD¹, Hal C Danzer, MD¹, Shahin Ghadir, MD¹, Carolyn J Alexander, MD¹ and Jason A Barritt, PhD², ¹Southern California Reproductive Center, Beverly Hills, CA, ²ART Reproductive Center, Beverly Hills, CA

P-101 DECREASING RATES OF MULTIPLE GESTATION AND NUMBER OF EMBRYOS TRANSFERRED IN GESTATIONAL CARRIER PREGNANCIES: A LONGITUDINAL ANALYSIS.

Rachel S Mandelbaum, MD, Meghan B Smith, MD, Jacqueline Ho, MD MS, Richard J Paulson, MD, MS and Kristin Bendikson, M.D., University of Southern California, Los Angeles, CA

P-102 DOES CATHETER TYPE AND/OR SONOGRAPHER IMPACT SUCCESS RATES FOR EMBRYO TRANSFER?

Emily Sarah Lin, BA pending¹, Angela Claire Thyer, MD² and Paul Chungyu Lin, MD², ¹Northwestern University, Evanston, IL, ²Seattle Reproductive Medicine, Seattle, WA

P-103 EVIDENCE BASED QUANTITATIVE PREDICTION OF RISK OF MULTIPLE GESTATION RESULTING FROM THE TRANSFER OF MULTIPLE EMBRYOS.

Michael Awadalla, MD, Kristin Bendikson, M.D., Jacqueline Ho, MD MS, Ali Ahmady, PhD and Richard J Paulson, MD, MS, University of Southern California, Los Angeles, CA

P-104 REDUCING SIZE OF TRANSFER SYRINGE IS BENEFICIAL FOR IVF PREGNANCY OUTCOMES.

Van Pham, B.S.¹, Randall Dunn, M.D.¹, Subodh Chauhan, M.D.¹, Leah Schenk, M.D.¹, Rakesh Mangal, M.D.¹, Ertug Kovanci, M.D.¹, George M Grunert, M.D.¹ and Wan-Song A Wun, PhD², ¹Aspire Fertility, Houston, TX, ²Harvest Fertility, Arcadia, TX

IVF OUTCOME PREDICTORS - EMBRYOS

P-105 ONGOING PREGNANCY RATE OF VITRIFIED-WARMED BLASTOCYST TRANSFERS IN AUTOLOGOUS PATIENTS: SINGLE VS DOUBLE TRANSFER ACCORDING TO THE DAY OF DEVELOPMENT.

Juergen Liebermann, PhD, HCLD, Sara Sanchez-Julias, BS, Rebecca Brohammer, BS, Janna Schwab, MS, Meike L Uhler, M.D., Jennifer E Hirshfeld-Cytron, MD and Christopher Sipe, MD, Fertility Centers of Illinois, Chicago, IL

P-106 RELATIONSHIP OF EMBRYO SEX TO EMBRYO QUALITY, DAY OF BLASTOCYST TRANSFORMATION, AND IVF OUTCOMES.

Christopher P Moutos, MD¹, William G. Kearns, MD, PhD², Sarah E Farmer, MS³, Jon P Richards, MS³, Antonio F Saad, MD¹ and John R Crochet Jr., MD³, ¹University of Texas Medical Branch, Galveston, TX, ²Johns Hopkins University School of Medicine, Advagenix, 9430 Key West Hwy, Suite 130, MD, ³Center of Reproductive Medicine, Houston, TX

P-107 IMPACT OF FRESH-EMBRYO PARAMETERS ON SURVIVAL AND IMPLANTATION IN VITRIFIED BLASTOCYST CYCLES: ANALYSIS OF 11936 WARMED BLASTOCYSTS.

Aila Coello, PhD¹, M^a José de los Santos, PhD², Mar Nohales, PhD¹, Marcos Meseguer, PhD³, Jose Alejandro Remohi, MD, PhD⁴ and Ana Cobo, PhD¹, ¹VIRMA VALENCIA, VALENCIA, Spain, ²VIRMA Valencia, Valencia, Spain, ³VIRMA Global, Valencia, Spain, Tel Aviv, Israel, ⁴VIRMA Valencia, Valencia, Spain

P-108 DEVELOPMENT AND PRELIMINARY VALIDATION OF AN AUTOMATED STATIC DIGITAL IMAGE ANALYSIS SYSTEM UTILIZING MACHINE LEARNING FOR BLASTOCYST SELECTION.

Alejandro Chavez-Badiola, MD¹, Adolfo Flores-Saiffe



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Farias, MSc, PhD², Gerardo Mendizabal-Ruiz, PhD³, Rodolfo Garcia-Sanchez, MSc⁴ and Andrew J Drakeley, MD FRCOG⁵, ¹New Hope Fertility Center Mexico, Mexico City, EM, Mexico, ²New Hope Fertility Center, Guadalajara, JA, Mexico, ³Departamento de Ciencias Computacionales, Universidad de Guadalajara, Guadalajara, JA, Mexico, ⁴Affiliation not provided, ⁵Hewitt Centre for Reproductive Medicine, Liverpool Women's Hospital, Liverpool, United Kingdom

P-109 ODDS OF EUPLOIDY ARE SIGNIFICANTLY ASSOCIATED WITH NOT ONLY AGE BUT BLASTOCYST MORPHOKINETIC PARAMETERS AND ICM/TROPHOECTODERM CHARACTERISTICS.

Nina Desai, Ph.D., HCLD¹, Jeffrey M Goldberg, M.D.², Rebecca Flyckt, MD¹, Marjan Attaran, M.D.¹, Julie Tantibhedhyangkul, M.D.¹ and Cynthia M Austin, M.D.¹, ¹Cleveland Clinic, Beachwood, OH, ²Cleveland Clinic, Cleveland, OH

P-110 BLASTOCYST GRADE PREDICTS OUTCOME AFTER FROZEN EUPLOID TRANSFER IN PATIENTS WITH RECURRENT PREGNANCY LOSS.

Gayathree Murugappan, MD¹, Julia G Kim, MD, MPH², Jonathan D Kort, MD³, Brent M Hanson, MD², Shelby A Neal, MD², Ashley W Tiegs, MD⁴, Emily K Osman, MD², Richard Thomas Scott Jr., MD² and Ruth B Lathi, MD¹, ¹Stanford University Medical Center, Sunnyvale, CA, ²IVI-RMA New Jersey, Basking Ridge, NJ, ³IVI/Reproductive Medicine Associates of Northern California, San Francisco, CA, ⁴Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA

P-111 SURVIVAL BEHAVIOR OF EMBRYO COHORT IN CULTURE IS ASSOCIATED WITH PREGNANCY PERFORMANCE OF A SURVIVING EUPLOID BLASTOCYST AFTER SINGLE EMBRYO TRANSFER (SET): THE CANARIES IN THE COAL MINE?

Eleni A Greenwood, MD, MSc¹, Rhodel Simbulan, MS¹, Charles E McCulloch, PhD², Marcelle I Cedars, MD³ and Mitchell P Rosen, MD, HCLD², ¹University of California San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

P-112 FULLY HATCHED EUPLOID BLASTOCYSTS EXHIBIT LOWER PREGNANCY OUTCOMES WHEN COMPARED TO OTHER BLASTOCYST STAGES IN

FROZEN SET CYCLES. Ahmad Morsi Abu Maizar, M.Sc, TS(ABB)¹, Eric Urcia, M.Sc, TS(ABB)², Matthew David VerMilyea, PhD³, Richard Marrs, MD², Guy E Ringler, MD¹ and Kelly Baek, MD², ¹California Fertility Partners, Los Angeles, CA, ²Affiliation not provided, ³Ovation Fertility, Austin, TX

P-113 BLASTOCYST MORPHOLOGY CORRELATES WITH PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) RESULTS AND MAY FURTHER PREDICT PREGNANCY POTENTIAL AFTER EUPLOID SINGLE EMBRYO TRANSFER (SET).

Eleni A Greenwood, MD, MSc¹, Charles E McCulloch, PhD², Giovanna Olivera, MS³, Wingka Lin, MSc³, Fang Xie, PhD⁴, Marcelle I Cedars, MD⁵ and Mitchell P Rosen, MD, HCLD², ¹University of California San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³Affiliation not provided, ⁴University of California - San Francisco, San Francisco, CA, ⁵University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

P-114 INCREASED MALE LIVE-BIRTH RATES AFTER BLASTOCYST-STAGE FROZEN-THAWED EMBRYO TRANSFERS COMPARED WITH CLEAVAGE STAGE: A SOCIETY FOR ASSISTED REPRODUCTIVE TECHNOLOGIES CLINICAL OUTCOMES REPORTING SYSTEM STUDY.

Barry E Perlman, DO¹, Kavitha Krishnamoorthy, MD¹, Sara S Morelli, MD, PhD¹, Patricia Greenberg, MS², Sangita K Jindal, Ph.D.³ and Peter McGovern, MD⁴, ¹Rutgers New Jersey Medical School, Newark, NJ, ²Rutgers School of Public Health, New Brunswick, NJ, ³Einstein COM, Montefiore, Hartsdale, OR, ⁴University Reproductive Associates, NJ

P-115 EMBRYO SELECTION IN DEVELOPING COUNTRIES- INNER CELL MASS TO BLASTOCYST DIMENSION RATIO AS A PREDICTOR OF PREGNANCY OUTCOME.

Deepika Krish, MS, FRM, Consultant in Rep Med, BANGALORE, India

P-116 DOUBLE BIOPSY, NOT DOUBLE VITRIFICATION, LEADS TO DECREASED PROBABILITY OF ESTABLISHING AND SUSTAINING A VIABLE CLINICAL PREGNANCY.

Terry Schlenker, BSc, MA, MT, Sue McCormick, BS, Robin Smith, BS, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO



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- P-117 DEGREE OF RE-EXPANSION FOLLOWING VITRIFICATION/REWARMING OF EUPLOID BLASTOCYSTS IS INVERSELY CORRELATED WITH IMPLANTATION AND ONGOING PREGNANCY/LIVE BIRTH RATES.** Sydney Chang, MD¹, Taraneh Gharib Nazem, MD¹, Dmitry Gounko, MA², Marlena Duke, MSc, ELD², Christine Briton-Jones, PhD, HCLD², Alan B Copperman, MD¹ and Beth McAvey, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- P-118 PREDICTIVE ABILITY OF A BLASTOCYST GRADE ON REPRODUCTIVE OUTCOMES IN ELECTIVE FRESH EMBRYO TRANSFER.** Alyson M Digby, MD, BSc¹, Lesley Roberts, MD FRCPSC², Mary M Brown, MSc³, Megan Dufton, PhD Sc⁴ and Renda Bouzayen, MD FRCPSC³, ¹WK Health Centre, Dalhousie University, Halifax, NS, Canada, ²University of Manitoba, Winnipeg, MB, Canada, ³WK Health Centre Dalhousie University, Halifax, NS, Canada, ⁴Atlantic Assisted Reproductive Technologies, Halifax, NS, Canada
- P-119 IS THERE A RELATIONSHIP BETWEEN MITOCHONDRIAL DNA CONTENT AND ABORTION RATE IN PATIENTS UNDERGOING SINGLE EUPLOID FROZEN EMBRYO TRANSFER?** Ahmed El-Damen, MSc, Ibrahim Elkhatab, MSc, Asina Bayram, MSc, Ana Aranz, MSc, Suzan Samir, BVM, Neelke De Munk, PhD, Barbara Lawrenz, MD, PhD and Human M Fatemi, MD, PhD, IVIRMA Middle East Fertility Clinic, Abu Dhabi, United Arab Emirates
- P-120 FROZEN-THAWED EMBRYO TRANSFER IS BETTER THAN FRESH EMBRYO TRANSFER IN GnRH ANTAGONIST CYCLE IN NORMO-RESPONDERS: A RETROSPECTIVE COHORT STUDY.** Xitong Liu, Resident and Haiyan Bai, Physician, Northwest women's and children's hospital, Xi'an, China
- P-121 REGAINING OF FULL EXPANDED STAGE AT 3 HOURS POST-WARMING IS A SUPERIOR MORPHOLOGICAL MARKER FOR LIVE BIRTH RATES IN VITRIFIED-WARMED SINGLE BLASTOCYST TRANSFER CYCLES.** Natchandra Manohar Rao Chimote, M.Sc., Ph.D¹ and Bindu N. Chimote, M.Sc., M.Phil, Ph.D.(Biochemistry); M.Sc. Clinical Embryology (Leeds-UK)², ¹Scientific Director, Vaunshdharma Fertility Centre, Nagpur, India, ²Consultant Clinical Embryologist, Nagpur, India
- P-122 DOUBLE EMBRYO TRANSFERS OF POOR QUALITY BLASTOCYSTS GIVE THE SAME LIVE BIRTH RATE AS A SINGLE EMBRYO TRANSFER OF A GOOD QUALITY BLASTOCYST.** Maiko Hanada, Associate, Ogikubo hospital Niji clinic, Tokyo, Japan
- P-123 THE IMPACT OF TEMPERATURE AND RELATIVE HUMIDITY ON OUTCOMES OF OVARIAN STIMULATION AND IN VITRO FERTILIZATION USING AN OOCYTE DONATION COHORT.** Audrey J Gaskins, ScD¹, Zsolt Peter Nagy, MD, PhD², Sarah M Capelouto, MD³, Daniel B Shapiro, MD², Jessica B Spencer, MD, MSc¹ and Heather S Hipp, MD¹, ¹Emory University, Atlanta, GA, ²Reproductive Biology Associates, Atlanta, GA, ³The University of Texas, Southwestern Medical Center, Dallas, TX
- P-124 TIMING OF BLASTOCYST DEVELOPMENT IS THE SOLE PREDICTOR OF POSITIVE PREGNANCY OUTCOME IN ADVANCED MATERNAL AGE PATIENTS FOLLOWING SINGLE EUPLOID BLASTOCYST TRANSFER.** Mandy G Katz-Jaffe, Ph.D., Annette Matts, MS, Amy Bartoli, MS, Diane Klepacka, MS, Danielle Young, MS, Emily Anderson, BS, Michelle M Denomme Tignaneli, PhD and William B Schoolcraft, MD, Colorado Center for Reproductive Medicine, Lone Tree, CO
- P-125 AUTOMATED HALO IDENTIFICATION: A NOVEL PREDICTIVE FEATURE FOR IVF SUCCESS IDENTIFIED THROUGH AN ARTIFICIAL INTELLIGENCE (AI) ALGORITHM.** Marcos Meseguer, PhD¹, Ron Uriel Maor, BSc², Lucia Alegre, PhD¹, Raquel Del Gallego, PhD¹, Antonio Pellicer, MD, PhD³, Daniel S Seidman, M.D, MMSc⁴ and Daniella Gilboa, MSc², ¹IVIRMA Global, Valencia, Spain, ²AIVF, Tel Aviv, Israel, ³The Foundation For Embryonic Competence, Basking Ridge, NJ, ⁴Department of Obstetrics and Gynecology Sheba Medical Center affiliated to The Sackler Faculty of Medicine, Tel Aviv, Israel
- P-126 HIGHER CUMULATIVE LIVE BIRTH RATES (CLBR) ARE EXPECTED WITH A FREEZE-ALL POLICY AS COMPARED TO A FRESH EMBRYO TRANSFER POLICY, WHEN MORE THAN TWO BLASTOCYSTS ARE AVAILABLE.** Petroula Tatsi, MSc¹, Tatiana Chartomatsidou, MSc¹, Christina Vlachou, MSc¹, George Michos, MD, PhD², Robert Najdecki, MD, PhD¹, Evangelos Papanikolaou, MD, PhD¹, Eros Nikitos, MSc³ and Evangelia Timotheou, MSc¹, ¹Assisting



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Nature, Center of Assisted Reproduction and Genetics, Thessaloniki, Greece, ²3rd Department of Obstetrics and Gynecology, Aristotle University of Thessaloniki, Thessaloniki, Greece, ³Institute of Life, Athens, Greece

- P-127 IMPACT OF MEIOTIC SPINDLE IMAGING ON FERTILIZATION, EMBRYO DEVELOPMENT, CLINICAL OUTCOME AND MORPHOKINETIC PARAMETERS: AN ANALYSIS OF 415 IN-VIVO MATURED AND 317 IN-VITRO MATURED HUMAN OOCYTE SIBLINGS.** Yukiko Nakajo, AS¹, Nobuya Aono, Ph.D.², Hiromitsu Hattori, M.Sc.¹, Yusuke Nakamura, BS¹, Chiyuri Kumao, BS¹, Noriyuki Okuyama, M.Sc.³, Tomoko Hashimoto, M.D., Ph.D.³, Mayumi Toya, M.D., Ph.D.¹, Hideki Igarashi, M.D., Ph.D.¹ and Koichi Kyono, M.D., Ph.D.³, ¹Kyono ART Clinic, Sendai, Miyagi, Japan, ²3-13-1, takanawa, Minato-ku, Tokyo, Japan, ³Kyono ART Clinic Takanawa, Tokyo, Japan

- P-128 CORRELATION BETWEEN BLASTOCYST STAGE OF EXPANSION AND CLINICAL OUTCOME: A RETROSPECTIVE ANALYSIS OF 810 SINGLE EUPLOID BLASTOCYST TRANSFER CYCLES AT A SINGLE IVF CENTER.** Vikrant V Reddy, MSc¹, Qianying Zhao, MSc², Odgerel Badamjav, MSc¹, Jennifer Dasig, MSc¹, Jeong Hee Moon, Ph.D.¹, Yimin Qin, Ph.D.¹, Ali Masoudi, BS¹, Kenney Tuyen, BS¹ and Barry R Behr, Ph.D.³, ¹Stanford University Medical Center (LPCH), Sunnyvale, CA, ²Stanford Fertility and Reproductive Medicine Center (LPCH), Sunnyvale, CA, ³Stanford Fertility and Reproductive Medicine Center, Sunnyvale, CA

- P-129 PREGNANCY OUTCOMES OF FROZEN THAWED CLEAVAGE STAGE EMBRYOS WITH OR WITHOUT EXTENDED CULTURE TO BLASTOCYST STAGE.** Cindy Chan, MD, Huang Yung Ling, MS, Chi-Huang Chen, MD, PhD and Chii-Ruey Tzeng, MD, MPH, Taipei Medical University Hospital, Taipei, Taiwan

- P-130 FACTORS PREDICTIVE OF HAVING SUPERNUMERARY EMBRYOS IN FREEZE-ALL CYCLES; AN ANALYSIS OF SART CORS DATA.** Yetunde O. Ibrahim, MD¹, Greg Stoddard, MS² and Erica Johnstone, MD³, ¹Utah Center for Reproductive Medicine, Salt Lake City, UT, ²Affiliation not provided, ³University of Utah, Salt Lake City, UT

- P-131 LIVE BIRTH DATA FROM 498 ELECTIVE AND NON-ELECTIVE AUTOLOGOUS OOCYTE THAW CYCLES (2009-2018).** Anne Martini, DO¹, Rachel Horowitz, MD², Kate Devine, MD³,

Jui-He Tsai, PhD³, Micah J Hill, DO¹, Alan H DeCherney, MD¹, Joseph Doyle, MD³ and Caleb Kallen, MD, PhD², ¹National Institute of Child Health and Human Development, NIH, Bethesda, MD, ²Shady Grove Fertility and Lankenau Medical Center, Philadelphia, PA, ³Shady Grove Fertility, Rockville, MD

- P-132 WHAT ARE THE CHANCES OF SUCCESS FOR COUPLES PERFORMING AN IVF CYCLE WITH ONLY POOR QUALITY DAY-3 EMBRYOS CULTURED TO THE BLASTOCYST STAGE?** Camille Grysole, MD, Simon Phillips, PhD, Lise Preaubert, MD, PhD and Louise Lapensée, MD, Ovo Clinic, Montréal, QC, Canada
- P-133 SUITABLE TIMING TO TRANSFER BLASTOCYSTS VITRIFIED ON DAY 6 IN FROZEN-THAWED CYCLES MAY BE DAY 5, NOT DAY 6.** Huiling Xu, master¹, Shumin Qiu, bachelor² and Beihong Zheng, bachelor¹, ¹Fujian Provincial Maternity and Children's Hospital, FuZhou, China, ²Affiliation not provided
- P-134 DOES THE DAY OF FINAL OOCYTE MATURATION INJECTION PREDICT OUTCOMES IN COUPLES UNDERGOING IN VITRO FERTILIZATION/ INTRACYTOPLASMIC SPERM INJECTION — AN ANALYSIS BASED ON AGE AND INDIVIDUAL CONTROLLED OVARIAN STIMULATION PROTOCOL.** Abey Eapen, MBBS DRCOG PhD, Amy E Sparks, PhD, Yunshu Zhou, MS, Karen M Summers, MPH CHES, Patrick Ten Eyck, MS PhD and Eyup Hakan Duran, MD, University of Iowa, Iowa City, IA
- P-135 ASSISTED HATCHING: IS IT ALL IT'S CRACKED UP TO BE?** Charis E Ng, BHSc¹, Marta Wais, MD¹ and Crystal Chan, MD, MSc², ¹University of Toronto, Toronto, ON, Canada, ²Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, ON, Canada
- P-136 RELATIONSHIP BETWEEN THE PREGNANCY AND THE SIZE OF ARRESTED BLASTOMERE DERIVED FROM ABNORMAL CYTOKINESIS IN BLASTOCYST TRANSFER CYCLES.** Hiroki Izumi, M.S.¹, Manabu Satoh, Ph.D.¹, Shu Hashimoto, Ph.D.², Yoshiharu Nakaoka, MD, PhD.¹ and Yoshiharu Morimoto, MD, PhD³, ¹IVF NAMBA CLINIC, Osaka, Japan, ²Reproductive Science, Osaka City University Graduate School of Medicine, Osaka, Japan, ³HORAC Grand Front Osaka clinic, Osaka, Japan
- P-137 EMBRYO SELECT ASSAY: A NON-INVASIVE, DIPSTICK ELISA STRIP ASSAY TO IDENTIFY**



POSTER PRESENTATIONS AND ABSTRACTS

THE MOST COMPETENT EMBRYO FROM THE COHORT. Elizabeth E Puscheck, MD, MS, MBA¹, Michael J Kirk, E.L.D.², Antony Anderson, D.H.Sc.³, Milica Ivanovic, B.S., B.A.⁴, Seth Levrant, MD⁵, Aleksandra Lazarevic, B.A.⁶ and Rajasingam Jeyendran, Ph.D, HCLD⁶, ¹Wayne State University, Detroit, MI, ²Michigan Center for Fertility and Women's Health, Warren, MI, ³Aspire Fertility San Antonio, San Antonio, TX, ⁴Andrology Laboratory Services, Chicago, IL, ⁵Partners in Reproductive Health, Tinley Park, IL, ⁶Androlab Inc, Chicago, IL

P-138 SINGLE VITRIFIED-WARMED BLASTOCYST TRANSFER: WHAT ARE THE BEST PREDICTIVE FACTORS FOR SUCCESS? Evelyne Boulet, BSc, Jason Ka Man Au, MSc, Jill Anne Mellon, MSc and Jon Havelock, MD, Pacific Centre for Reproductive Medicine, Burnaby, BC, Canada

P-139 MATURITY OF CUMULUS OOCYTE COMPLEX (COC) PREDICTS THE OUTCOME OF ART. ~ FOCUS ON DYSMATURE ~ Mitsuyoshi Amita, M.D., Ph.D., Eri Ishida, M.Sc., Kuniko Tatsumi, MSc, Yoko Yoshitake, M.D., Ryosuke Akino, M.D. and Takakazu Saito, M.D., Ph.D., National Center for Child Health and Development, Okura, Setagaya, Tokyo, Japan

P-140 THE PREDICTIVE VALUE OF DAY 5 MORPHOLOGY FOR SLOW DEVELOPING EMBRYOS. Joseph Chervenak, M.D.¹, Joshua Stewart, M.D.², Nikica Zaninovic, Ph.D.², Steven Spandorfer, M.D.² and Zev Rosenwaks, M.D.², ¹Department of Ob/Gyn, New York Presbyterian-Weill Cornell Medicine, New York, NY, ²The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

IVF OUTCOME PREDICTORS - ENDOMETRIUM

P-141 ENDOMETRIAL THICKNESS IN PREDICTION OF PREGNANCY OUTCOME IN FRESH EGG DONATION CYCLES: A RETROSPECTIVE COHORT ANALYSIS. Jakob Dobliger, MD¹, Elena Labarta, MD PhD¹ and Ernesto Bosch, MD PhD², ¹IVIRMA Valencia, Valencia, Spain, ²IVI-RMA, Valencia, Spain

P-142 WHAT IS THE CLINICAL IMPACT OF THE ENDOMETRIAL RECEPTIVITY ARRAY IN PGT-A AND OOCYTE DONATION CYCLES? Francisca Martinez, PhD¹, Ana Raquel Neves, MD², Marta Devesa, PhD³, Sandra García-Martínez, ScB³, Ignacio Rodríguez, MSc³ and Buenaventura

Coroleu, PhD, MD³, ¹Hospital Universitario Dexeus, Barcelona, Spain, ²Coimbra Hospital and University Centre, Coimbra, Portugal, ³Hospital universitario Dexeus, Barcelona, Spain

P-143 INTENTIONAL ENDOMETRIAL INJURY TRYING TO IMPROVE CLINICAL OUTCOMES OF AN OOCYTE DONATION PROGRAM IN PATIENTS WITHOUT RIF. INTERYM ANALYSIS OF A RANDOMIZED CONTROLLED TRIAL. Carmen Vidal, M.D., Ph.D.¹, Juan Giles, M.D., Ph.D.², Elena Labarta, MD PhD³, Gemma Castillon, M.D., Ph.D.⁴, Javier Martinez-Salazar, MD⁵, Laura Fernandez, MD⁶, Yanira Ayllon Sr., MD⁷, Manuel Muñoz, MD⁸, Jose Bellver, MD PhD⁹, Antonia Tocino Sr., MD¹⁰, Elkin Muñoz, M.D., Ph.D.¹¹, Antonio Pellicer, MD PhD⁸ and Nicolas Garrido, PhD¹², ¹IVIRMA Valencia, Valencia, Spain, ²IVI-RMA Valencia, Valencia, Spain, ³IVI-RMA, Valencia, Spain, ⁴IVI-RMA Barcelona, Barcelona, Spain, ⁵IVI- Madrid, Madrid, Spain, ⁶IVI Murcia, Murcia, Spain, ⁷IVIRMA, Las Palmas de GC, Spain, ⁸IVIRMA ALICANTE, Alicante, Spain, ⁹Affiliation not provided, ¹⁰IVI RMA Sevilla, SEVILLA, Spain, ¹¹IVI-RMA Vigo, Vigo, Spain, ¹²IVI Foundation, IIS La Fe, Valencia, IIS, Spain

P-144 DO PATIENTS WITH A HISTORY OF CHRONIC ENDOMETRITIS BENEFIT FROM CORTICOSTEROIDS AND ANTIBIOTICS BEFORE FROZEN EMBRYO TRANSFER? Nicole D Yoder, MD¹, David H. McCulloh, Ph.D.², James A Grifo, MD, PhD³ and Frederick L. Licciardi, M.D.², ¹NYU School of Medicine, New York, NY, ²NYU Langone Health, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY

P-145 IS THERE AN ASSOCIATION BETWEEN ENDOMETRIAL THICKNESS AT TIME OF FROZEN EMBRYO TRANSFER AND THE INCIDENCE OF SUBCHORIONIC HEMATOMA OR VAGINAL BLEEDING? Sydney Chang, MD¹, Lily Ottensooser, BA², Sass Wodoslawsky, BA², Taraneh Gharib Nazem, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Alan B Copperman, MD¹ and Beth McAvey, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-146 ENDOMETRIAL PREPARATION WITH ETANERCEPT INCREASES EMBRYO IMPLANTATION AND LIVE BIRTH IN WOMEN SUFFERING FROM IMPLANTATION FAILURE DURING IN VITRO



POSTER PRESENTATIONS AND ABSTRACTS

FERTILIZATION. Karla Y Santiago, MD¹ and Esther López-Bayghen, PhD², ¹Ingenes México, Mexico City, DF, Mexico, ²Centro de Investigación y Estudios Avanzados IPN, México, EM, Mexico

- P-147 CHRONIC ENDOMETRITIS SCREENING IN PATIENTS WHO EXPERIENCE EUPLOID EMBRYO IMPLANTATION FAILURE DOES NOT IMPROVE IVF OUTCOMES AFTER A SUBSEQUENT EUPLOID FET.** Carlos Hernandez-Nieto, MD¹, Joseph A. Lee, BA¹, Daniel E. Stein, MD², Tanmoy Mukherjee, MD¹, Benjamin Sandler, M.D.¹ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY
- P-148 VALUE OF ENDOMETRIAL ECHO PATTERN TRANSFORMATION AFTER HCG TRIGGER IN PREDICTING IVF PREGNANCY OUTCOME: A PROSPECTIVE COHORT STUDY.** Yanping Li, PhD, Xiangya hospital Central-south university, Changsha, China
- P-149 CLINICAL UTILITY OF THE ENDOMETRIAL RECEPTIVITY ARRAY IN WOMEN WITH PRIOR FAILED TRANSFERS.** Laura E Eisman, MD¹, Margareta D. Pisarska, MD¹, Sahar Wertheimer, MD¹, Jessica L Chan, MD, MSCE¹, Alin Lina Akopians, MD, PhD², Mark W Surrey, MD², Hal C Danzer, MD², Shahin Ghadir, MD², Wendy Y Chang, MD², Carolyn J Alexander, MD² and Erica T Wang, MD, MAS¹, ¹Cedars-Sinai Medical Center, Los Angeles, CA, ²Southern California Reproductive Center, Beverly Hills, CA
- P-150 WITHDRAWN**
- P-151 PROGNOSTIC VALUE OF UTERINE NATURAL KILLER (UNK) CELLS DENSITY IN PERI-IMPLANTATION ENDOMETRIUM FROM WOMEN WITH RECURRENT IMPLANTATION FAILURE.** Xiaoyan Chen, PhD, The Chinese University of Hong Kong, Hong Kong, Hong Kong
- P-152 IMPACT OF ENDOMETRIAL PREPARATION IN CRYOPRESERVED-WARMED EMBRYO TRANSFER (FET) CYCLES ON PERINATAL OUTCOME.** Anna Sokalska, MD, PhD, Nathanael C Koelper, MPH, Charikleia Kalliora, MD, Monica Mainigi, MD, Christos Coutifaris, MD, PhD and Suneeta Senapati, MD, MSCE, University of Pennsylvania, Philadelphia, PA
- P-153 SUBENDOMETRIAL JUNCTION ZONE THICKNES: IMPACT ON IVF OUTCOMES IN AN OOCYTE RECEPTOR PROGRAM.** Federico Galera Fernandez, OBGYN¹, Enriqueta Garijo Lopez,

OBGYN¹, Carmen Galera, Biologist² and Laura Garcia Bernardo, OBGYN³, ¹Instituto Madrileño de Fertilidad, Madrid, Spain, ²IMF, Madrid, Spain, ³Instituto Madrileño de fertilidad, Madrid, Spain

IVF OUTCOME PREDICTORS - GESTATIONAL CARRIERS

- P-154 CAN BIRTH WEIGHT AND GESTATIONAL AGE AT DELIVERY OF SINGLETON GESTATIONAL CARRIER PREGNANCIES BE PREDICTED BY THE GESTATIONAL CARRIER'S OWN PREVIOUS SINGLETON PREGNANCIES?** Rachel S Mandelbaum, MD, Meghan B Smith, MD, Jacqueline Ho, MD MS, Kristin Bendikson, M.D. and Richard J Paulson, MD, MS, University of Southern California, Los Angeles, CA
- P-155 WITHDRAWN**
- P-156 PREGNANCY RATES FOLLOWING SINGLE EUPLOID EMBRYO TRANSFER ARE UNCHANGED IN GESTATIONAL CARRIER COMPARED TO NON-GESTATIONAL CARRIER IN VITRO FERTILIZATION CYCLES.** Carrie Riesterberg, MD¹, Seyedeh Nahaleh Salvatian, MS², Haley Baltimore, BS², Molly M Quinn, MD¹, Alin Lina Akopians, MD, PhD³, Hal C Danzer, MD³, Mark W Surrey, MD³ and Jason A Barritt, PhD², ¹University of California, Los Angeles, Los Angeles, CA, ²ART Reproductive Center, Beverly Hills, CA, ³Southern California Reproductive Center, Beverly Hills, CA

IVF OUTCOME PREDICTORS - HORMONE LEVELS

- P-157 THE EFFECT OF SUPRAPHYSIOLOGIC ESTRADIOL LEVELS ON PREGNANCY OUTCOMES IN SINGLE EUPLOID FROZEN EMBRYO TRANSFER CYCLES.** Sydney Chang, MD¹, Taraneh Gharib Nazem, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Alan B Copperman, MD¹ and Eric Flisser, MD², ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- P-158 AN ANALYSIS OF THE CONTRIBUTION OF SERUM ESTRADIOL LEVEL ON SUBCHORIONIC HEMATOMA FORMATION RATES IN NATURAL AND PROGRAMMED FROZEN EMBRYO TRANSFER CYCLES.** Jenna Reich, BS¹, Jennifer K Blakemore, MD² and James A Grifo, MD, PhD³, ¹NYU School of Medicine, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY



POSTER PRESENTATIONS AND ABSTRACTS

P-159 CLINICAL MASS DATA ANALYSIS(CMDA) OF DIFFERENCE IN PREGNANCY RATE BETWEEN FROZEN-THAWED AND FRESH EMBRYO TRANSFER AT VARIOUS E2 LEVELS. Tae Seop Shin, MS¹, Eun Ah Kim, MS¹, Gyu Hee Choi, MS², Chun Kyu Lim, Ph.D.¹, Hwang Kwon, M.D, Ph.D.¹, Soo Yeon Kim, MD³, Jee Hyun Kim, MD³ and Eun Kyung Kim, Ph.D.², ¹Fertility Center, CHA Bundang Medical Center, CHA University, Seongnam-si, Gyeonggi-do, Korea, Republic of (South), ²Fertility Center, Seongnam-si, Gyeonggi-do, Korea, Republic of (South), ³CHA Bundang Medical Center, CHA University, Seongnam-si, Gyeonggi-do, Korea, Republic of (South)

P-160 "PREDICTIVE VALUE OF SERUM PROGESTERONE LEVEL ON DAY 4, DAY 7 AND DAY 11 AFTER BLASTOCYST TRANSFER IN A HORMONAL REPLACEMENT THERAPY CYCLE." Elena Labarta, MD PhD¹, Giulia Mariani, MD² and Ernesto Bosch, MD PhD¹, ¹IVI-RMA, Valencia, Spain, ²IVI-RMA, Valencia, Valencia, Spain

P-161 THE PREDICTIVE VALUE OF FSH BASAL LEVELS FOR ART OUTCOMES IS AGE DEPENDENT. Jose Buratini, DVM, PHD, Claudio M.M Brigante, MD, Silvana Gippone, MD, Mara Zanirato, MD, Maria Cristina Guglielmo, BSci, PHD, Mariabeatrice Dal Canto, BSci, PHD, Mario Mignini Renzini, MD and Rubens Fadini, MD, Biogenesi Reproductive Medicine Centre, Monza, Italy

P-162 THE IMPACT OF SPONTANEOUS LH SURGE DURING A NATURAL CYCLE FROZEN EMBRYO TRANSFER. Jasmyn K Johal, MD, MSc¹, Brindha Bavan, MD¹, Ruth B Lathi, MD² and Amin A Milki, MD², ¹Stanford University, Stanford, CA, ²Stanford Fertility and Reproductive Medicine Center, Sunnyvale, CA

P-163 THE RELATIONSHIP BETWEEN ANTI-MÜLLERIAN HORMONE AND ANEUPLOIDY IN REPRODUCTIVE-AGE WOMEN UNDERGOING PREIMPLANTATION GENETIC TESTING; IS THERE A CORRELATION? Monica Pasternak, MD¹, Micha Thompson, BA¹ and Steven Spandorfer, M.D.², ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-164 DO PROGESTERONE LEVELS ON DAY OF EMBRYO TRANSFER CORRELATE WITH PREGNANCY OUTCOMES IN ARTIFICIAL FROZEN-THAW CYCLES? Michelle Volovsky, MBBS (Hons)¹,

Cassandra Louise Pakes, MD², Genia Rozen, MBBS (Hons), FRANZCOG³ and Alex Polyakov, MBBS, FRANZCOG, MClinEpid, MReproMed, GradCertEBM⁴, ¹Royal Women's Hospital, Melbourne, VIC, Australia, ²Royal Women's Hospital, Melbourne, VIC, Australia, ³Royal Women's Hospital, Melbourne IVF, Melbourne, VIC, Australia, ⁴University of Melbourne and Melbourne IVF, Melbourne, VIC, Australia

P-165 COMPARING FROZEN EMBRYO TRANSFER OUTCOMES WITH BASELINE LH LEVELS. Ariel Z Benor, M.D. and Richard Grazi, M.D., Maimonides Medical Center, Brooklyn, NY

P-166 SERUM HCG LEVEL MEASURED 5 DAYS AFTER SINGLE THAWED BLASTOCYST TRANSFER AS A PREDICTOR OF OUTCOME. Angela H Liu, MD¹, Ankita Raman, MD¹, Carrie E Bedient, MD², Leah A Kaye, MD², Forest C Garner, MS² and Bruce Shapiro, M.D., Ph.D., H.C.L.D.², ¹University of Nevada, Las Vegas, Las Vegas, NV, ²Fertility Center of Las Vegas, Las Vegas, NV

P-167 A NOVEL CYTOKINE PANEL CAN BETTER PREDICT OOCYTE COMPETENCY IN OVERWEIGHT PATIENTS. Miranda K Defer, BA, Brandon A Wyse, MSc, Peter Szaraz, PhD, Sahar Jahangiri, MSc, Noga Fuchs Weizman, MD and Clifford Lawrence Librach, MD, CREAtE Fertility Centre, Toronto, ON, Canada

IVF OUTCOME PREDICTORS - LUTEAL SUPPORT

P-168 IN PATIENTS WITH SUB-OPTIMAL ENDOMETRIAL LINING, DOES THE ROUTE OF ADMINISTRATION OF SUPPLEMENTAL ESTROGEN CORRELATE WITH FROZEN EMBRYO TRANSFER OUTCOMES? Devora Aharon, MD¹, Sass Wodoslawsky, BA², Ariel Megan Schnur, RN, BSN², Jordyn Banks, RN², Melissa Bell, RN², Margaret Daneyko, RN², Lawrence Grunfeld, MD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-169 NATURAL FROZEN EMBRYO TRANSFER WITH HCG BOOSTER FOR OPTIMIZATION OF CYCLE OUTCOMES: A RETROSPECTIVE COHORT STUDY. Claire Stewart, BA¹, David Reichman, MD² and Zev Rosenwaks, M.D.³, ¹Weill Cornell Medical College, New York, NY, ²Weill Cornell Medicine, New York, NY, ³The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY



POSTER PRESENTATIONS AND ABSTRACTS

P-170 INTRAMUSCULAR INJECTION OF HUMAN CHORIONIC GONADOTROPIN BEFORE SECRETORY TRANSFORMATION SIGNIFICANTLY IMPROVES THE IMPLANTATION AND PREGNANCY OUTCOMES IN FROZEN EMBRYO TRANSFER CYCLES. Lling Deng, bachelor¹, Xin Chen, PhD², Shi-ling Chen, PhD², De-Sheng Ye, doctor² and nf, ¹Southern Medical University, Guangzhou, China, ²Center for Reproductive Medicine, Department of Gynecology and Obstetrics, Nanfang Hospital, Southern Medical University, Guangzhou, China

P-171 LUTEAL PHASE SUPPORT USING GONADOTROPIN RELEASING HORMONE AGONIST (GNRHA) VERSUS ESTROGEN AND PROGESTERONE SUPPLEMENTATION IN HIGH RESPONDERS FOLLOWING GNRHA TRIGGERING – A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL. Lilach Marom Haham, M.D.¹, Yariv Shlomo Gidoni, M.D.², Ohad Baruchin, MD, MHA², Jonathan Barkat, M.D.², Michal Youngster, M.D.¹, Ariel Revel, M.D.³ and Ido Ben-Ami, M.D. PHD³, ¹Shamir medical center, Tel Aviv university, Beer Yakov, Israel, ²Shamir Medical Center, Be'er Ya'akov, Israel, ³Tel Aviv university, Tel Aviv, Israel

P-172 PROSPECTIVE ANALYSIS OF PROGESTERONE DURATION IN PROGRAMMED SINGLE THAWED EUPLOID EMBRYO TRANSFER CYCLES. Carly I Hirschberg, MD¹, Jennifer K Blakemore, MD¹, Mary Elizabeth Fino, MD² and James A Grifo, MD, PhD³, ¹NYU Langone School of Medicine, New York, NY, ²NYU Langone Fertility Center, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY

P-173 A NOVEL PROGESTERONE RELEASING INTRAVAGINAL RING FOR LUTEAL PHASE SUPPORT: PHARMACOKINETICS AND SAFETY IN A SHEEP MODEL. David R Friend, PhD, Dare Bioscience, Inc., SAN DIEGO, CA

IVF OUTCOME PREDICTORS - OOCYTES

P-174 INCREASED NUMBER OF OOCYTES RETRIEVED IN FROZEN DONOR OOCYTE CYCLES DOES NOT HAVE A NEGATIVE IMPACT ON OUTCOMES. Rita Ann Fields, MS¹, Andrew Dorfmann, MS¹ and Laurence Udoff, MD², ¹Fairfax EggBank, Fairfax, VA, ²Genetics and IVF Institute, Fairfax, VA

P-175 ARTIFICIAL OOCYTE ACTIVATION (AOA) TREATMENT OFFERS A NEW OPTION IN PREVIOUS UNSUCCESSFUL CASES DUE TO POOR FERTILIZATION HISTORY; A PAIRED

COHORT STUDY. Alberto Tejera Sr., PhD¹, Lucia Alegre, PhD², Arantza Delgado, PhD³, Jose Maria De los Santos Sr., PhD⁴, Jose Alejandro Remohi, MD, PhD⁵ and Marcos Meseguer, PhD⁶, ¹Embryologist, Valencia, Spain, ²IVIRMA Global, Valencia, Spain, ³IVIRMA Valencia, Valencia, Spain, ⁴Affiliation not provided, ⁵IVIRMA Valencia, Valencia, Spain, ⁶IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

P-176 EFFECT OF REGULATION OF OOCYTE CYTOPLASMIC VOLUME DURING FERTILIZATION ON CLINICAL OUTCOMES OF SINGLE-EMBRYO TRANSFER. Hitomi Takenouchi, M.S., Satoshi Ueno, Ph.D., Akiko Yabuuchi, Ph.D., Tadashi Okimura, B.S., Kazuo Uchiyama, M.T., Tamotsu Kobayashi, M.D. and Keiichi Kato, M.D., Ph.D., Kato Ladies Clinic, Tokyo, Japan

P-177 ASSOCIATION BETWEEN THE NUMBER OF OOCYTES RETRIEVED, CANCELLATION RATES, AND CLINICAL OUTCOMES IN IVF PGT CYCLES WITH SINGLE EMBRYO TRANSFER (SET) - A 2273 CYCLES REVIEW. Oleksii O. Barash, Ph.D.¹, Kristen Ivani, Ph.D., H.C.L.D.², Mary D. Hinckley, MD¹ and Louis N. Weckstein, MD¹, ¹Reproductive Science Center, San Ramon, CA, ²Reproductive Science Center of the San Francisco Bay Area, San Ramon, CA

P-178 IVF OUTCOME IN WOMEN WITH ENTIRE COHORT OF OOCYTES WITH COARSE GRANULATION IN PERIVITELLINE SPACE. Raiza Ashraf, M.B.B.S¹, Aswathy Shanavas, M.S, D.N.B.², Alex C Varghese, Ph.D.³, Sankalp Singh, M.D, D.N.B, MRCOG⁴, Mohamed Ashraf, M.D, D.G.O, DPS⁵ and Noushin Abdul Majid, M.D, MRCOG, MRCPI⁶, ¹Indian Medical Association, THRISSUR, India, ²INDIAN MEDICAL ASSOCIATION, KOLLAM, India, ³Astra Fertility Clinic, Mississauga, ON, Canada, ⁴craft hospital, kodungallur, India, ⁵chairman of CRAT hospital & Research center, Kodungallure, India, ⁶Rcog.RCPI, TRAVENCORE MEDICAL COUNCIL, INDIAN MEDICAL ASSOCIATION,, thrissur, India

IVF OUTCOME PREDICTORS - OTHER

P-179 THE CAUSAL EFFECT OF DYNAMIC FERTILITY TREATMENT STRATEGIES ON THE PROBABILITY OF PREGNANCY: A NOVEL APPLICATION OF MARGINAL STRUCTURAL MODELS (MSMS). Soudeh Ansari, PhD¹, Michael P LaValley, PhD², Sara Lodi, PhD², Brooke Hayward, SM, MBA³,



POSTER PRESENTATIONS AND ABSTRACTS

Gilbert L Mottla, MD⁴, Mary Mahony, PhD⁵ and Judith J Lok, PhD⁶, ¹Prometrika LLC, Cambridge, MA, ²Boston University School of Public Health, Boston, MA, ³EMD Serono, Inc., Rockland, MA, ⁴Shady Grove Fertility Center, Annapolis, MD, ⁵US Medical Affairs, EMD Serono, Inc., Rockland, MA, ⁶Boston University, Boston, MA

P-180 ECTOPIC/HETEROTOPIC PREGNANCY OUTCOMES AFTER BLASTOCYST-STAGE FROZEN-THAWED EMBRYO TRANSFERS COMPARED WITH CLEAVAGE STAGE: A SART-CORS STUDY.

Kavitha Krishnamoorthy, MD¹, Barry E Perlman, DO¹, Sara S Morelli, MD, PhD¹, Patricia Greenberg, MS², Sangita K Jindal, Ph.D.³ and Peter McGovern, MD⁴, ¹Rutgers New Jersey Medical School, Newark, NJ, ²Rutgers School of Public Health, New Brunswick, NJ, ³Einstein COM, Montefiore, Hartsdale, OR, ⁴University Reproductive Associates, NJ

P-181 LEVERAGING A COMPOSITE OVARIAN RESERVE SCORE IN A MACHINE LEARNING MODEL OF LIVE BIRTH OUTCOMES IN IVF.

Karen Hunter Cohn, PhD¹, Cameron Wellock, PhD¹, Piraye Yurttas Beim, PhD¹ and Polaris Data Network, ¹Celmatix, NEW YORK, NY

P-182 A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTI-CENTER, PHASE 2 TRIAL TO INVESTIGATE THE EFFECT OF BARUSIBAN ON IMPLANTATION IN IVF/ICSI PATIENTS.

Ernesto Bosch, MD PhD¹, Heidi Aasted, MSc², Bjarke M Klein, PhD³, Joan-Carles Arce, MD, PhD² and the BASIC Study Group, ¹IVI Valencia, Valencia, Spain, ²Ferring Pharmaceuticals Inc., Parsippany, NJ, ³Ferring Pharmaceuticals, Copenhagen, Denmark

P-183 INCREASED OCCURRENCE OF TWIN AND VERY PRE-TERM BIRTHS IN PATIENTS UNDERGOING IN VITRO FERTILIZATION (IVF) USING FROZEN DONOR OOCYTES.

Luke Y. Ying, M.D.¹, James Baron, M.D.¹, Mark D. Sanchez, M.D.¹ and Ying Ying, Ph.D.², ¹HCA West Florida GME Consortium/ Brandon Regional Hospital, Brandon, FL, ²University of South Florida Department of Obstetrics and Gynecology, Tampa, FL

P-184 WHAT INFLUENCES IMPLANTATION OF EUPLOID EMBRYOS AFTER SINGLE THAWED EUPLOID EMBRYO TRANSFER (STEET): IS IT THE STIMULATION FOR RETRIEVAL, THE UTERINE PREPARATION FOR FET, THE EMBRYO TRANSFER OR THE EMBRYO?

David H. McCulloh, Ph.D.¹,

Caroline McCaffrey, Ph.D.² and James A Grifo, MD, PhD³, ¹NYU Langone Health, New York, NY, ²New York Langone Health, NYU Fertility Center, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY

P-185 EFFECT OF VARIATION IN LABORATORY AND CLINICAL PRACTICES DURING THE LAST DECADE ON IVF OUTCOME.

Maria Teresita W. Lao, MSc¹, Rajput Isha, M.Med Sci², Essam S.N. Michael, M.D.¹, Alex C Varghese, Ph.D¹ and Kannamannadiar Jayaprakasan, Ph.D.², ¹Astra Fertility Clinic, Mississauga, ON, Canada, ²Department of Obstetrics and Gynecology, Royal Derby Hospital and University of Nottingham, United Kingdom

P-186 CONCENTRATIONS OF STROMAL CELL-DERIVED FACTOR-1 IN HUMAN FOLLICULAR FLUIDS ARE ASSOCIATED WITH CLINICAL IN VITRO FERTILIZATION OUTCOMES.

Hidetaka Okada, MD and Akemi Nishigaki, PhD, Kansai Medical University, Hirakata, Japan

P-187 PREDICTIVE FACTORS FOR OOCYTE RETRIEVAL FAILURE IN TREATMENT CYCLES WITH ASSISTED REPRODUCTIVE TECHNOLOGY: A RETROSPECTIVE COHORT STUDY USING THE NATION-WIDE ART REGISTRY OF JAPAN.

Toshifumi Takahashi, M.D. and Kuniaki Ota, M.D., Fukushima Medical University, Fukushima, Japan

P-188 PREDICTING CLINICAL PREGNANCY BY MACHINE LEARNING ALGORITHM USING NONINVASIVE EMBRYO MORPHOKINETICS AT AN ACADEMIC CENTER.

Liubin Yang, MD, PhD¹, Mary Peavey, MD², Khalied Kaskar, MS¹, Neil Chappell, MD, MSCI¹, Darius J Devlin, BS³, Terri Woodard, MD¹, Paul Zarutskie, MD¹, Richard Cochran, PhD¹ and William Gibbons, MD¹, ¹Baylor College of Medicine, Houston, TX, ²University of North Carolina, Chapel Hill, NC, ³Interdepartmental Program in Translational Biology & Molecular Medicine, Baylor College of Medicine, Houston, TX

P-189 FROZEN-THAWED EMBRYO REPLACEMENT (FER): A UK-WIDE SURVEY OF IVF CLINICS DEMONSTRATING WIDE VARIATION IN PRACTICE AND A COMPARISON OF GnRH-ANTAGONIST WITH GnRH-AGONIST PITUITARY SUPPRESSION IN MEDICATED FER.

Tim Child, MD MRCOG¹ and Matt Noble, MBChB BSc(MedSci) MRCOG², ¹University of Oxford, Oxford, United Kingdom, ²Oxford Fertility, Oxford, United Kingdom



POSTER PRESENTATIONS AND ABSTRACTS

- P-190 IMPROVING IMPLANTATION RATE BY ADDING RECOMBINANT LH SUPPLEMENTATION TO RECOMBINANT FSH DURING CONTROLLED OVARIAN STIMULATION IN GNRH ANTAGONIST REGIMEN.** Edson Borges Jr., PhD¹, Daniela Paes de Almeida Ferreira Braga, PhD¹, Matheus de Castro Azevedo, BSc², Assumpto Iaconelli Jr., MD¹ and Amanda Souza Setti, MSc¹, ¹Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil, ²Fertility Medical Group, Sao Paulo, Brazil
- P-191 FRESH VERSUS FREEZE-ALL STRATEGY IN ASSISTED REPRODUCTIVE TECHNOLOGY – A COCHRANE REVIEW.** Tjitske Zaat, MD. (MSc), Miriam S. Zagers, MSc., Femke Mol, M.D., PhD, Mariette Goddijn, Prof. Dr. MD. PhD., M. van Wely, Dr. PhD. and Sebastiaan Mastenbroek, PhD, Amsterdam UMC, University of Amsterdam, Center for Reproductive Medicine, Amsterdam Reproduction & Development Research Institute, Meibergdreef 9, Amsterdam, Amsterdam, Netherlands
- P-192 PREDICTING CUMULATIVE LIVE BIRTH RATE FOR THE FIRST CYCLE OF IN VITRO FERTILIZATION.** Yao Lu, M.D.¹, Guquan Wang, M.D.¹, Steven R. Lindheim, M.D.² and Yun Sun, M.D.¹, ¹Center for Reproductive Medicine, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, China, ²Wright State University, OB/GYN, Dayton, OH
- P-193 PRO CASPASE-3 AND CLEAVED CASPASE-3 GENE AND PROTEIN EXPRESSION IN HUMAN GRANULOSA CELLS CORRELATE WITH COS DURATION, LENGTH OF INFERTILITY AND PROPORTION OF MATURE OOCYTES RETRIEVED.** Camila P Almeida, Ms¹, Camila O Silveira, MD, Ms², Enio F Ferreira Sr., PhD¹, Marcia C Ferreira, MD, PhD¹, Gabriella Graças Oliveira, Bs², Emerson S Veloso, Ms¹, Felipe H S Silva Sr., Ms¹, Santuza S Coelho, Ms¹, Leonardo M Moraes, MD, Ms², Fernando M Reis, MD, PhD¹ and Helen L Del Puerto, PhD¹, ¹UFMG, Belo Horizonte, Brazil, ²Fertibaby, Belo Horizonte, Brazil
- P-194 ASSOCIATION OF THE VAGINAL MICROBIOME WITH PROPHYLACTIC ANTIBIOTIC EXPOSURE AND CLINICAL OUTCOMES IN WOMEN UNDERGOING IN VITRO FERTILIZATION: A RANDOMIZED CONTROLLED PILOT STUDY.** Ashley Eskew, MD, MSCI¹, Bronwyn Bedrick, BA², Joan Riley, PhD, HCLD³, Emily S Jungheim, MD, MSCI¹ and Kristine Wylie, PhD¹, ¹Washington University School of Medicine, St. Louis, MO, ²Washington University in St. Louis, Saint Louis, MO, ³Washington University School of Medicine, St. Louis, MO
- P-195 APOPTOSIS OF CUMULUS GRANULOSA CELLS IS HIGHER IN NON-PREGNANT GROUP IN PATIENTS UNDERGOING IVF/ICSI.** Yuting Fan, M.D.¹, Xiao-yan Liang, M.D., Ph.D.¹ and Sherman Silber, MD², ¹The Sixth Affiliated Hospital of Sun Yat-sen University, Guangzhou, China, ²Infertility Center of St. Louis, Chesterfield, MO
- P-196 DOES MASSAGE THERAPY IMMEDIATELY PRIOR TO EMBRYO TRANSFER IMPROVE CLINICAL PREGNANCY RATE IN IVF-PGT-A (IN-VITRO FERTILIZATION-PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY) CYCLES?** Sarah Z Gavrizi, MD¹ and Amanda Skillern, MD, FACOG², ¹UT Dell Medical School, Austin, TX, ²Aspire Austin, Austin, TX
- P-197 WOMEN WITH PREVIOUS FAILED IVF BENEFIT FROM INTRAUTERINE INSTILLATION OF PLATELET RICH PLASMA.** Mamta Sudhir Katakdhond, DNB¹, Sangeeta Dheerendra Deshmukh, MD², Shubhada Sanjiv Khandeparkar, MD³, Nandkishor Jagannath Naik, B.Sc¹, Mangesh Sanap, MSc¹, Gajanan Naik, B.Sc¹, Pratiksha Khandare, MSc¹ and Firuza Rajesh Parikh, MD DNB PhD², ¹Fertitree-Jaslok International Fertility Centre, MUMBAI, India, ²Jaslok Hospital and Research Centre, Mumbai, India, ³Dr. Khandeparkar IVF centre, MUMBAI, India
- P-198 THE ROLE OF VITAMIN D ON PREGNANCY OUTCOMES OF IVF/ICSI.** Cai Sufen, master¹, Zeng Suimin, Graduate student², Li Jian, doctor³, Fei Gong, PhD¹, Hoher Berthold, doctor³ and Ge Lin, M.D., Ph.D.⁴, ¹Basic Medicine College, Central South University, changsha, China, ²Department of Basic Medicine, Hunan Normal University School of Medicine, changsha, China, ³Hunan Normal University, changsha, China, ⁴Central South University, Changsha, China
- P-199 NON-INVASIVE OOCYTE SELECTION BASED ON CUMULUS GENE EXPRESSIONS OF CAMK1D, EFNB2 AND SASH1 PREDICTS PREGNANCY: A RETROSPECTIVE STUDY IN AN ASIAN POPULATION.** Tom Adriaenssens, MSc¹, Inge Van Vaerenbergh, PhD¹, Nazli Akin, MSc¹, Wim Coucke, PhD², Cong Fang, MD³,



POSTER PRESENTATIONS AND ABSTRACTS

Chuanchuan Zhou, MD³, Zeng Haitao, MD PhD³, Kazuhisa Tomita, MS⁴, Yoshiharu Morimoto, MD, PhD⁴, Yi-An Chen, MS⁵, Chii-Ruey Tzeng, MD, MPH⁵, Elien Van Hecke, MSc⁶, André Rosenthal, Prof.⁶ and Johan Smits, MD, PhD, Prof.¹, ¹Follicle Biology Laboratory, Vrije Universiteit Brussel, Brussels, Belgium, ²Quality of Laboratories, Sciensano, Brussels, Belgium, ³Reproductive Medicine Research Center, Sixth Affiliated Hospital of Sun Yat-Sen University, Guangzhou, China, ⁴HORAC Grand Front Osaka clinic, Osaka, Japan, ⁵Center for Reproductive Medicine, Taipei Medical University Hospital, Taipei, Taiwan, ⁶Fertiga, Lede, Belgium

P-200 RELATIONSHIP BETWEEN NUMBER OF OOCYTES RETRIEVED FROM ANONYMOUS EGG DONORS AND SUBSEQUENT EMBRYO QUALITY AFTER IN VITRO FERTILIZATION (IVF): A RETROSPECTIVE STUDY. Henney Hambrose, BA¹, Elizabeth M Woodward, PhD², Nicolle Clements, PhD³, Michael Glassner, MD¹, John Orris, DO¹ and Sharon H Anderson, PhD⁴, ¹Main Line Fertility Center, Bryn Mawr, PA, ²School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, ³Department of Decision and System Sciences, Saint Joseph's University, Philadelphia, PA, ⁴OB/GYN Department, Drexel University College of Medicine, Philadelphia, PA

P-201 CAN WE PREDICT WHO WILL DEVELOP A BLASTOCYST FROM AN IVF/ICSI CYCLE? Rakia Aljasser, MD¹, Sara Ilinitzky, MD¹, Lynda Hughes, BSc², Angelos Vilos, MD³, George Vilos, MD⁴ and Basim Abu-Rafea, MD⁵, ¹Clinical Fellow, London, ON, Canada, ²The Fertility Clinic London Health Sciences Centre, London, ON, Canada, ³Western university, London, ON, Canada, ⁴Western university, London, ON, Canada, ⁵Western University, London, ON, Canada

P-202 HUMAN GROWTH HORMONE COUPLED WITH THE CMAP ACUPUNCTURE PROTOCOL (GH-CMAP) ENHANCES BLASTOCYST FORMATION AND CLINICAL PREGNANCY RATES. Paul C Magarelli, M.D., Ph.D., Feng Gao, Ph.D. and Daine K Cridennda, L.Ac. FABORM, HQA Fertility Centers, Colorado Springs, CO

P-203 THE EFFECT OF BODY MASS INDEX ON THE IMPLANTATION POTENTIAL OF EUPLOID EMBRYOS. Mohamad Irani, MD, Vinay Gunnala, MD, Steven Spandorfer, M.D. and Zev Rosenwaks, M.D., The Ronald O. Perelman

and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-204 THE EFFECT OF INTERLEUKIN 6 ON CONTROLLED OVARIAN STIMULATION RESULTS AND IVF OUTCOME IN INFERTILE WOMEN WITH ADENOMYOSIS UNDERGOING IVF. Chung-Hoon Kim, M.D., Ph.D., Jei-Won Moon, M.D. and Shin Yong Moon, M.D., Ph.D., M Fertility Center, Seoul, Korea, Republic of (South)

P-205 CELL FREE DNA IS AN IDEAL OVARIAN RESERVE MARKER FOR LOW OVARIAN RESPONSE FOR STIMULATION. Siddhartha Nagireddy, MCh(Reproductive medicine and Surgery)¹ and Lahari Katneni, MS (Ob & Gyn)², ¹Assistant Professor, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ²25-19-10 N R Peta West Godavari District, Eluru, India

P-206 IS THE 'OESTRO-ANDROGENIC' HORMONE DEHYDRO-EPIANDROSTERONE SULPHATE (DHEAS) THE INTRACRINE REGULATOR OF IMPLANTATION AND EARLY PREGNANCY?: A PROSPECTIVE STUDY IN WOMEN UNDERGOING IVF Bindu N. Chimote, M.Sc., M.Phil, Ph.D.(Biochemistry); M.Sc. Clinical Embryology (Leeds-UK)¹ and Natchandra Manoharrao Chimote, M.Sc., Ph.D.², ¹Consultant Clinical Embryologist, Nagpur, India, ²Scientific Director, Vaunshdhara Fertility Centre, Nagpur, India

P-207 HIGH PINK1 EXPRESSION RELATED TO AGEING IN CUMULUS CELLS IS ASSOCIATED WITH ASSISTED REPRODUCTIVE TECHNOLOGY OUTCOME. Chia-Jung Li, Ph.D, Department of Obstetrics and Gynecology, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan

P-208 PREGNANCY OUTCOMES OF PATIENTS WITH A CONGENITAL DIDEPHYS UTERUS: AN ANALYSIS OF 76 WOMEN FOLLOWING IN VITRO FERTILIZATION EMBRYO TRANSFER. Jingzi Xiao, Master, Xihong Li, MD./Ph.D, Yan Ouyang, MD./Ph.D and Yuyao Mao, Master, Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China

P-209 IS FIRST TRIMESTER SUBCHORIONIC HEMORRHAGE ASSOCIATED WITH ADVERSE PREGNANCY OUTCOMES AFTER IN VITRO FERTILIZATION? Kelsey Anderson, MD, Emily S Jungheim, MD, MSCI, Patricia T Jimenez, MD and Kenan Omurtag, MD, Washington University School of Medicine, St. Louis, MO



POSTER PRESENTATIONS AND ABSTRACTS

- P-210 PEROXIREDOXIN 4, A NEW OXIDATIVE STRESS MARKER IN FOLLICULAR FLUID MAY PREDICT IVF OUTCOMES.** Yi Qian, PhD, Yan Meng, MD and Jiayin Liu, MD, State Key Laboratory of Reproductive Medicine, Clinical Center of Reproductive Medicine, Nanjing, China
- P-211 FOLLICULAR FLUID (FF) CONCENTRATION OF ANTI-MÜLLERIAN HORMONE (AMH) IN WOMEN PURSUING IN VITRO FERTILIZATION (IVF): VARIABILITY AND PREDICTORS.** Caitlin R Sacha, MD¹, Lidia Mínguez-Alarcón, PhD², Jorge E Chavarro, MD, Sc.D.³, Jennifer B Ford, RN², Patricia K Donahoe, MD⁴, Irene Souter, MD¹, Russ Hauser, MD, MPH, Sc.D.² and David Pépin, PhD⁴, ¹MGH Fertility Center and Harvard Medical School, Boston, MA, ²Harvard T.H. Chan School of Public Health, Boston, MA, ³Harvard School of Public Health, Boston, MA, ⁴MGH Pediatric Surgical Research Laboratories, Boston, MA
- P-212 IMPACT OF ACUPUNCTURE ON OUTCOMES FOLLOWING FROZEN EUPLOID BLASTOCYST ESET.** Nancy L Bossert, PhD¹, Hannah Van Der Geest, BS¹, April Batcheller, MD¹, William B Schoolcraft, MD² and Jason E Swain, PhD³, ¹CCRM Minneapolis, Edina, MN, ²Colorado Center for Reproductive Medicine, Lone Tree, CO, ³CCRM Fertility Network, Lone Tree, CO
- P-213 FOLLICLE DIAMETER PREDICTS OOCYTE MATURITY BUT NOT FORMATION OF BLASTOCYSTS OR PLOIDY OF BLASTOCYSTS ARISING FROM MATURE OOCYTES OF DONORS.** David H. McCulloh, Ph.D.¹, Nino Kutchukhidze, PhD², Tea Charkviani, md³, Temiko Zhorzholadze, MD MS¹, Tamar Barbakadze, MD⁴, Santiago Munne, PhD⁵ and Lia Chkonia, MS⁶, ¹Georgian American Center for Reproductive Medicine ReproART, Tbilisi, Georgia, ²Georgian American Center for Reproductive medicine "ReproART", Tbilisi, Georgia, ³Georgian American Center for reproductive medicine Reproart, Tbilisi, Georgia, ⁴Georgian-American Center for Reproductive medicine Reproart, Tbilisi, Georgia, ⁵Overture Life, Madrid, Spain, ⁶Georgian American Center for reproductive Medicine Reproart, Tbilisi, Georgia
- P-214 THE PREVIOUS CESAREAN DELIVERY DOESN'T AFFECT THE PROGNOSIS OF IVF-ET: A LARGE SAMPLE RETROSPECTIVE CASE CONTROL STUDY.** Shuo Yang, MD, Peking University Third Hospital, Beijing, China
- P-215 OOCYTE DONOR IMPLANTATION AND PREGNANCY RATES PREDICT OOCYTE RECIPIENT PREGNANCY CHANCE IN AN EGG-SHARING DONATION PROGRAM.** Daniela Paes de Almeida Ferreira Braga, PhD¹, Amanda Souza Setti, MSc¹, Matheus de Castro Azevedo, BSc², Assumpto Iaconelli Jr., MD¹ and Edson Borges Jr., PhD¹, ¹Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil, ²Fertility Medical Group, Sao Paulo, Brazil
- P-216 NATURAL VERSUS MANAGED NATURAL CYCLE PRIOR TO FET: A RANDOMIZED CONTROLLED TRIAL.** Shari Mackens, MD¹, Alexandre Marie Stubbe, MD¹, Samuel Santos-Ribeiro, MD, PhD², Arne van de Vijver, MD, PhD³, Herman Tournaye, MD, PhD¹ and Christophe Blockeel, MD, PhD¹, ¹Universitair Ziekenhuis Brussel, Jette, Belgium, ²IVI-RMA Lisbon, Lisbon, Portugal, ³AZ Sint-Jan, Brugge, Belgium
- P-217 OXIDATIVE PARAMETERS IN FERTILIZATION MEDIUM OF CUMULUS - OOCYTE COMPLEX (COC) AS MEASURED BY THERMOCHEMILUMINESCENCE (TCL) MAY PREDICT TREATMENT OUTCOME IN IVF: PRELIMINARY RESULTS FROM A PROSPECTIVE STUDY.** Zofnat Wiener- Megnazi, MD¹, Hadar Gluska, MD², Shirly Lahav - Baratz, PhD³, Idit Blais, MSc⁴, Sergei Shnizer, MD, PhD⁵, Mara Koifman, MSc⁶, David Ishai, MD⁷, Ido Feferkorn, MD⁸, Sivan Skvisky, MD⁸ and Martha Dimfeld, MD⁹, ¹Head of Fertility and IVF Unit, Haifa, Israel, ²Affiliation not provided, ³Head of IVF lab., Haifa, Israel, ⁴Carmel Medical Center, Haifa, Israel, ⁵Carmel Diagnostics, Kiryat-Tivon, Israel, ⁶Carmel Medical Centre IVF Lab, Haifa, Israel, ⁷Senior consultant, Haifa, Israel, ⁸Carmel medical center, Haifa, Israel, ⁹Faculty of Medicine Technion, Haifa, Israel
- P-218 IVF PREGNANCY RATES IN WOMEN UNDERGOING ACUPUNCTURE VS. CONTROLS** Phy L Jennifer, DO¹, Yan Zhang, PhD², Jennie Orlando, MD², Samuel D Prien, PhD¹, Lindsay L Penrose, PhD¹, Sheila Garos, PhD² and Jaou-Chen Huang, MD³, ¹Texas Tech University Health Sciences Center, Lubbock, TX, ²Affiliation not provided, ³Texas Tech University Health Science Center - Lubbock, Lubbock, TX
- P-219 HIGH CONCORDANCE BETWEEN VAGINAL AND CERVICAL MICROBIOME ASSESSMENTS WITH INCREASING MICROBIAL DIVERSITY NEGATIVELY IMPACTS PREGNANCY OUTCOMES FOLLOWING TRANSFER OF A SINGLE EUPLOID BLASTOCYST.**



POSTER PRESENTATIONS AND ABSTRACTS

Shelby A Neal, MD¹, Xin Tao, Ph.D², Li Sun, Ph.D², Brent M Hanson, MD¹, Julia G Kim, MD, MPH¹, Emily K Osman, MD¹, Ashley W Tiegs, MD¹, Richard Thomas Scott Jr., MD¹ and Jason M Franasiak, MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²The Foundation for Embryonic Competence, Basking Ridge, NJ

P-220 RISK OF PREGNANCY FAILURE IN AN OPTIMIZED UTERINE ENVIRONMENT: LIVE BIRTH RATE FROM PGT-A EUPLOID EMBRYOS IN A PROVEN UTERUS. Renee N Rivas, MD, PhD¹, Michael K. Simoni, MD¹, Alan S. Penzias, M.D.², Denny Sakkas, PhD² and Pasquale Patrizio, M.D.³, ¹Yale New Haven Hospital, New Haven, CT, ²Boston IVF, Waltham, MA, ³Yale Fertility Center, New Haven, CT

P-221 MITOCHONDRIAL REPLACEMENT THERAPY GIVE NO BENEFITS TO PATIENTS OF ADVANCED MATERNAL AGE. Pavlo Mazur, MSc.¹, Lada Dyachenko, MSc.¹, Viktor Veselovskyy, MD², Yuliya Masliy, PhD², Maksym Borysov, PhD², Dmytro O. Mykytenko, MD, DSc³ and Valery Zukin, MD², ¹Darwin Life Nadiya, Kyiv, Ukraine, ²Nadiya Clinic, Kyiv, Ukraine, ³LLC Darwin Life-Nadiya, Kyiv, Ukraine

P-222 EFFECT OF THE VAGINAL MICROBIOME ON THE PREGNANCY RATE IN PATIENTS UNDERGOING ASSISTED REPRODUCTION TECHNIQUES. Belen Lledo, PhD, Andrea Bernabeu, PhD, Mayka Diaz, MSc, Vicente Ruiz, MSc, Francisca M Lozano, MSc, Jorge Ten, PhD, Joaquin Llacer, PhD and Rafael Bernabeu, Ph D M D, Instituto Bernabeu, Alicante, Spain

IVF OUTCOME PREDICTORS - OVARIAN STIMULATION

P-223 TRIGGER DAY FOLLICLE-STIMULATING HORMONE (FSH) "BOOST" INCREASES COSTS BUT DOES NOT IMPROVE OUTCOMES IN PATIENTS UNDERGOING IVF WITH PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A). Isaac J. Chamani, B.A.¹, David H. McCulloh, Ph.D.² and Frederick L. Licciardi, M.D.², ¹New York University School of Medicine, New York, NY, ²NYU Langone Health, New York, NY

P-224 EFFECTIVENESS OF RECOMBINANT HUMAN FOLLICLE-STIMULATING HORMONE (R-HFSH) VERSUS HUMAN MENOPAUSAL

GONADOTROPIN (U-HMG) IN ASSISTED REPRODUCTIVE TECHNOLOGY (ART): A STUDY BASED ON GERMAN REAL-WORLD DATA. Klaus F Bühler, MD¹, Sandra Guedes, PharmD, MSc², Arthur Allignol, PhD, Dr², Thomas D'Hooghe, MD, PhD², Wilma Bilger, PhD³, Emmanuelle Boutmy, PhD, Dr², Emilia Richter, MD, MSc² and Robert Fischer, MD⁴, ¹Centre for Gynaecological, Endocrinology, and Reproductive Medicine, Ulm and Stuttgart, Germany, ²Merck Healthcare KGaA, Darmstadt, Germany, ³Merck Serono GmbH, Darmstadt, Germany, ⁴MVZ Fertility Center Hamburg GmbH, Hamburg, Germany

P-225 A NOVEL FLEXIBLE PROGESTIN PRIMED OVARIAN STIMULATION PROTOCOL: COMPARISON OF PREGNANCY OUTCOMES WITH THE FLEXIBLE GnRH ANTAGONIST PROTOCOL IN AN OOCYTE DONATION PROGRAM. Sule Yildiz, MD¹, Engin Turkgeldi, MD¹, Alper Eraslan, MD², Berk Angun, MD² and Mustafa Baris Ata, M.D.³, ¹Koc University Hospital, Istanbul, Turkey, ²Dunya IVF Center, Kyrenia, Cyprus, ³Koc University School of Medicine, Istanbul, Turkey

P-226 DYDROGESTERONE FOR PREVENT LH SURGE YIELDS SIMILAR OUTCOMES TO GANIRELIX IN A SHARED OOCYTE DONOR CYCLE WITH SUBSEQUENT FROZEN-THAWED EMBRYO TRANSFER: COMPARISON OF DONORS AND RECIPIENTS. Arnaldo Schizzi Cambiaghi, MD, Rogerio de Barros Ferreira Leao, MD, Amanda Volpato Alvarez, MD, Paula Bortolai Martins Araujo, MD and Patricia Figueiredo Nascimento, MD, IPGO, São Paulo, Brazil

P-227 EFFECTIVENESS AND SAFETY OF BIOSIMILAR FOLLITROPIN ALFA IN WOMEN UNDERGOING ROUTINE OVARIAN STIMULATION WITH A GnRH ANTAGONIST: RESULTS FROM A GERMAN MULTI-CENTRE NON-INTERVENTIONAL STUDY. Colin M Howles, PhD and German Ovaleap non-interventional ART study group, ARIES CONSULTING Sarl, Onex, Switzerland

P-228 THE IMPACT OF OVARIAN RESPONSE ON CLINICAL PREGNANCY AND DELIVERY RATES IN AN OOCYTE DONOR POPULATION. Brent M Hanson, MD¹, Julia G Kim, MD, MPH¹, Emily K Osman, MD¹, Ashley W Tiegs, MD¹, Shelby A Neal, MD¹, Marie D Werner, MD² and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²IVI-RMA



POSTER PRESENTATIONS AND ABSTRACTS

P-229 MILD VERSUS LONG LUTEAL AGONIST STIMULATION PROTOCOL IN NORMAL AND POOR RESPONDERS IN ASSISTED REPRODUCTION, A META-ANALYSIS OF RANDOMIZED STUDIES.

Nooman Sallam, MD, MCh¹, Mohamed Abdelbaqy, MBBCh, MSc² and Hassan Sallam, MD, PhD (London), FRCOG³, ¹Alexandria Fertility Centre, Alexandria, Egypt, ²Alexandria Regional Center for Women's Health and Development, Alexandria, Egypt, ³Alexandria University, Alexandria, Egypt

P-230 EFFECTS OF ESTRADIOL PRETREATMENT DURING FOLLICULAR PERIOD ON OUTCOME OF IN VITRO FERTILIZATION AND EMBRYO TRANSFER TREATMENT FOR POOR OVARIAN RESPONDER WITH HIGH FSH LEVEL. Yi Tang, PHD, Central South University, Changsha, China

IVF OUTCOME PREDICTORS - PROGESTERONE LEVELS

P-231 LONGER DURATION OF PROGESTERONE ELEVATION ADVERSELY IMPACTS PREGNANCY OUTCOMES DURING IVF IN WOMEN ≤ 40 YEARS. Chantal Bartels, MD, Jeffrey Thorne, MD, Reeve B Makhijani, MD, Grow R Daniel, MD, John Nulsen, MD, Claudio Benadiva, MD and Lawrence Engmann, MD, Center for Advanced Reproductive Services, University of Connecticut, Farmington, CT

P-232 INCREASING LUTEAL PROGESTERONE LEVELS ARE ASSOCIATED WITH HIGHER ONGOING PREGNANCY RATES AND LOWER EARLY PREGNANCY LOSSES FOLLOWING SINGLE EUPLOID FROZEN EMBRYO TRANSFER. Sydney Chang, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Eric Flisser, MD², Lucky Sekhon, MD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-233 SERUM PROGESTERONE ELEVATION MAY ADVERSELY AFFECT EMBRYOLOGICAL PARAMETERS. Fazilet Kubra Boynukalin, M.D., MSc¹, Meral Gultomruk, BSc², Emre Turgut, M.D.², Necati Findikli, Ph.D.³, Onder Coban, MSc⁴, Munevver Serdarogullari, PhD⁵ and Mustafa Bahçeci, M.D., Ph.D.³, ¹Bahçeci Health Group-Fulya IVF Centre, ISTANBUL, Turkey, ²Bahçeci Fulya IVF Center, ISTANBUL,

Turkey, ³Bahçeci Health Group-Fulya IVF Centre, Istanbul, Turkey, ⁴Bahçeci Health Group, Lefkosa, Turkey, ⁵Bahçeci Health Group, Nicosia, Turkey

P-234 EFFECTS OF SERUM PROGESTERONE AND LH LEVELS BEFORE HCG TRIGGERING ON CLINICAL PREGNANCY OUTCOMES OF MODIFIED NATURAL FROZEN-THAWED EMBRYO TRANSFER CYCLES. Na Kong, M.M., Tianran Song, M.D. and Jingyu Liu, M.M., Reproductive Medicine Center, The Affiliated Drum Tower Hospital of Nanjing University, nanjing, China

P-235 THE EFFECT OF PREMATURE ELEVATED PROGESTERONE LEVEL IN LATE FOLLICULAR PHASE ON OOCYTE QUALITY. Cihan Cakir, M.D., PhD. candidate¹, Goktan Kuspinar, PhD. candidate¹, Isil Kasapoglu, M.D.², Mustafa Baris Ata, M.D.³, Gurkan Uncu, M.D.² and Berrin Avci, M.D., PhD¹, ¹Uludag University School of Medicine, Bursa, Turkey, ²Uludag University School of Medicine, Gynecology and Obstetric ART Center, Bursa, Turkey, ³Koc University School of Medicine, Istanbul, Turkey

P-236 EFFECT OF PREMATURE SERUM LH AND PLASMA PROGESTERONE RISE ON THE CLINICAL OUTCOME OF ANOVULATORY PATIENTS TREATED WITH GONADOTROPINS. Hassan Sallam, MD, PhD (London), FRCOG¹, Ola Mustafa, MD, MCh¹, Abdel-Fattah Agameya, MD, PhD¹ and Nooman Sallam, MD, MCh², ¹Alexandria University, Alexandria, Egypt, ²Alexandria Fertility Centre, Alexandria, Egypt

P-237 EFFECT OF ESTROGEN TO PROGESTERONE RATIO AT TIME OF OVULATION TRIGGER ON SUBSEQUENT EUPLOID FROZEN EMBRYO TRANSFER PREGNANCY RATE. Hency Patel, MD¹, Temeka Zore, MD¹, Richard Buyalos, MD², Gary Hubert, MD², Chunmin Wang, PhD², Meredith Brower, MD², Mousa Shamoni, MD² and Molly M Quinn, MD¹, ¹University of California, Los Angeles, Los Angeles, CA, ²Fertility and Surgical Associates of California, Thousand Oaks, CA

P-238 SERUM PROGESTERONE LEVEL: A PREDICTOR OF PREGNANCY IN VITRIFIED-WARMED BLASTOCYST TRANSFER. Vivek P Kakkad, MD OBGYN¹, N Sanjeeva Reddy, MD (Obstetrics and Gynecology), DGO², Monna Pandurangi, MD (Ob & Gyn)³, Radha Vembu, DGO, DNB (Obstetrics and Gynecology), MNAMS,



POSTER PRESENTATIONS AND ABSTRACTS

FICS, FIGOG, PhD³, Siddhartha Nagireddy, MCh(Reproductive medicine and Surgery)⁴, Ashish kumar Soni, MCh REPRODUCTIVE MEDICINE AND SURGERY⁴ and Ranchhod N Nakum, MD PSM⁵, ¹POST GRADUATE (MCh REPRODUCTIVE MEDICINE & SURGERY), CHENNAI, India, ²Professor and Head, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ³Associate Professor, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁴Assistant Professor, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁵TUTOR COMMUNITY MEDICINE GMERS, Junagadh, India

- P-239** **PROTOCOL MATTERS:PROGESTERONE RISE ON DAY OF TRIGGER IMPACTS ANTAGONIST BUT NOT AGONIST LIVE BIRTH RATES FOR FRESH IVF CYCLES.** Janelle M. Jackman, M.B.B.S¹, Chantal Bartels, MD², John Nulsen, MD² and Grow R Daniel, MD², ¹The Brooklyn Hospital Center, Brooklyn, NY, ²University of Connecticut Health Center, Center for Assisted Reproductive Services, Farmington, CT

IVF OUTCOME PREDICTORS - SPERM

- P-240** **SPERM INTRACELLULAR pH AS A PREDICTOR OF FERTILIZATION RATE IN NORMOSPERMIC INFERTILE MEN UNDERGOING IN VITRO FERTILIZATION.** Stephanie Gunderson, MD¹, Lis C Puga Molina, PhD², Joan Riley, PhD, HCLD³, Emily S Jungheim, MD, MSCI⁴ and Celia M Santi, PhD MD², ¹Washington University, St Louis, MO, ²Washington University In Saint Louis, Saint Louis, MO, ³Washington University School of Medicine, St. Louis, MO, ⁴Washington University School of Medicine, St. Louis, MO
- P-241** **NEUROTENSIN STIMULATES THE SPERM ACROSOME REACTION AND ALTERS PERCENTAGES OF FERTILIZATION IN VITRO.** Genevieve E Campbell, BS¹, Estella L Jones, PhD¹, Pierre Comizzoli, DVM, PhD² and Diane M Duffy, PhD¹, ¹Eastern Virginia Medical School, Norfolk, VA, ²Smithsonian Institution, Washington, DC
- P-242** **SPERM DNA FRAGMENTATION INDICES ARE NOT CORRELATED WITH BLASTULATION OR EUPLOIDY RATES IN PATIENTS UNDERGOING IVF WITH PGT-A.** Carlos Hernandez-Nieto, MD¹,

Joseph A. Lee, BA¹, Christine Briton-Jones, PhD, HCLD¹, Natan Bar-Chama, MD², Benjamin Sandler, M.D.¹ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY

- P-243** **CYTOGENETIC ANALYSIS BY NEXT GENERATION SEQUENCING DISCLOSED THAT EXTREMELY HIGH EUPLOIDY RATE OF BLASTOCYSTS DERIVED FROM MONOPRNUCLEAR EMBRYOS WITH TESTICULAR SPERM.** Shimpei Mizuta, M.HS.¹, Hidehiko Matsubayashi, MD¹, Takumi Takeuchi, MD, PhD², Yuki Tamura, Ph.D.³, Mitsuo Santo, B.HS.³, Kotaro Kitaya, MD¹, Yasuhisa Araki, Ph.D.³ and Tomomoto Ishikawa, MD¹, ¹Reproduction Clinic Osaka, Osaka, Japan, ²Reproduction Clinic Tokyo, Tokyo, Japan, ³Nippon Reprogenetics Inc., Maebashi, Japan
- P-244** **SEDIMENTATION VERSUS SURGERY: TESTICULAR AND EJACULATED SPERM RESULT IN SIMILAR IVF OUTCOMES IN PATIENTS WITH CRYPTOZOOSPERMIA.** Carlos Hernandez-Nieto, MD¹, Joseph A. Lee, BA¹, Tamar Alkon, MD¹, Martha Luna-Rojas, MD¹, Christine Briton-Jones, PhD, HCLD¹, Natan Bar-Chama, MD², Alan B Copperman, MD² and Benjamin Sandler, M.D.¹, ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY
- P-245** **DOES MALE AGE AFFECT THE SPERM PARAMETERS AND IVF OUTCOMES?** Marta Belles, MSc, Mireia Florensa, MSc and Marga Esbert, PhD, IVI RMA Barcelona, Barcelona, Spain
- P-246** **HIGH RATES OF ANEUPLOIDY, MOSAICISM AND ABNORMAL MORPHOKINETIC DEVELOPMENT IN CASES OF VERY SEVERE MALE FACTOR WITH FEMALE PARTNERS ≤35 YEARS.** Semra Kahraman, Prof., Murat Cetinkaya, M.D., PhD, Yucel Sahin, MD, Hakan Kadir Yelke, MsC, Yesim Kumtepe Colakoglu, MsC, Mehmet Ali Tufekci, PhD, Mesut Yesil, MsC and Cigdem Cinar Yapan, MsC, Istanbul Memorial Hospital, Istanbul, Turkey
- P-247** **DOES USE OF TESTICULAR SPERM IMPROVE OUTCOMES IN NONAZOOSPERMIC COUPLES WITH PREVIOUS IVF FAILURE USING EJACULATED SPERM?** M. Blake Evans, DO¹, Jessica A Marinaro, MD², Kate Devine, MD³, Micah J Hill, DO¹, Alan H DeCherney, MD¹, Russell P Hayden, MD⁴, Paul Shin, MD³ and Cigdem Tanrikut, MD³, ¹NIH-NICHD, Bethesda, MD,



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²MedStar Georgetown University Hospital, Washington, DC, ³Shady Grove Fertility, Washington D.C., DC, ⁴Weill Cornell Medicine, New York, NY

IVF OUTCOME PREDICTORS - TRIGGER

- P-248 DOES OVULATORY TRIGGER CHOICE INFLUENCE MATURITY AND DEVELOPMENTAL COMPETENCE OF FROZEN-THAWED OOCYTES?** Sydney Chang, MD¹, Carlos Hernandez-Nieto, MD², Dmitry Gounko, MA², Beth McAvey, MD¹, Lucky Sekhon, MD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- P-249 DUAL TRIGGER USING RECOMBINANT HCG AND GONADOTROPIN-RELEASING HORMONE AGONIST IMPROVE OOCYTE QUALITY AND EMBRYO GRADING FOR NORMAL RESPONDERS IN GnRH ANTAGONIST CYCLES: RANDOMIZED CONTROLLED TRIAL.** Ahmed Ali Abdelaleem, MD¹, Shymaa Ali, MSc², Ahmed M Abbas, MD¹, Tarek Farghaly, MD¹, Elwany Elsenosy, MD¹ and Gamal Sayed, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Suez University, Suez, Egypt
- P-250 WITHDRAWN**
- P-251 TO BOOST OR NOT TO BOOST: DOES ADMINISTRATION OF RESCUE HCG IMPROVE OUTCOMES IN POOR RESPONDERS WITH LOW POST-TRIGGER VALUES?** Jenna Friedenthal, MD¹, Joseph A. Lee, BA², Daniel E. Stein, MD¹, Tanmoy Mukherjee, MD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY
- P-252 GnRH-AGONIST TRIGGER IN 'FREEZE-ALL' CYCLES: IMPROVES PREGNANCY RATES AND PATIENT SAFETY.** Marcus J Davenport, MBBS (Hons), BMedSc (Hons)¹, Martin Healey, MBBS, MD, FRANZCOG, FRCOG², Vivien B MacLachlan, BSc², Alon J Talmor, MBBS, BSc(Hons), PhD, MRCOG, FRANZCOG² and Beverley J Vollenhoven, MBBS(Hons), PhD, FRANZCOG, CREI³, ¹Monash Health, Melbourne, Victoria, VIC, Australia, ²Monash IVF, Clayton, VIC,

Australia, ³Department of Obstetrics and Gynecology, Monash University, Melbourne, VIC, Australia

- P-253 HOW WE TRIGGER MATTERS: INTRANASAL GnRH-AGONIST TRIGGER MAY REDUCE OOCYTE MATURATION COMPARED TO SUBCUTANEOUS ADMINISTRATION IN ICSI CYCLES.** Marcus J Davenport, MBBS (Hons), BMedSc (Hons)¹, Vivien B MacLachlan, BSc², Beverley J Vollenhoven, MBBS(Hons), PhD, FRANZCOG, CREI³, Alon J Talmor, MBBS, BSc(Hons), PhD, MRCOG, FRANZCOG² and Martin Healey, MBBS, MD, FRANZCOG, FRCOG⁴, ¹Monash Health, Melbourne, Victoria, VIC, Australia, ²Monash IVF, Clayton, VIC, Australia, ³Department of Obstetrics and Gynecology, Monash University, Melbourne, VIC, Australia, ⁴The University of Melbourne, Parkville, VIC, Australia
- P-254 HCG TRIGGER VERSUS GnRH AGONIST TRIGGER IN PCOS UNDERGOING IVF CYCLES: FROZEN EMBRYO TRANSFER OUTCOME.** Deepika Krish, MS, FRM, Consultant in Rep Med, BANGALORE, India
- P-255 THE EFFECT OF FOLLICLE STIMULATING HORMONE ADMINISTRATION AT THE TIME OF HUMAN GONADOTROPIN TRIGGERING, IS IT IMPROVE THE OOCYTE/EMBRYO PROFILE IN IN VITRO FERTILIZATION CYCLES?** Young Sang Kim, M.D.¹, Dong Soo Park, M.D.², Mi Kyung Koong, MD, PhD³, You Shin Kim, M.D, Ph.D.⁴, Myung Joo Kim, M.D.¹, Ran Kim, M.D.⁵, Hyeok Kim, MD, PhD⁶, Tae Ki Yoon, M.D, Ph.D.¹, Chanhong Park, M.D.⁴ and Hannah Kim, MD¹, ¹CHA Fertility Center Seoul Station, Obstetrics and Gynecology, Seoul, Korea, Republic of (South), ²CHA Fertility Center, Seoul, Korea, Republic of (South), ³Department of OB/GY CHA Fertility Center Seoul Station, CHA University, Seoul, Korea, Republic of (South), ⁴CHA Fertility Center Seoul Station, Seoul, Korea, Republic of (South), ⁵Department of OB/GY, CHA Fertility Center Seoul Station, CHA University, Seoul, Korea, Republic of (South), ⁶CHA Fertility Center Seoul Station, OB&GY, Seoul, Korea, Republic of (South)
- P-256 DOES POST-TRIGGER SERUM B-HCG VALUE MATTER IN PATIENTS WITH SUBOPTIMAL LH RESPONSE AFTER DUAL TRIGGER CYCLES?** Kolbe Hancock, MD¹, Chelsea Canon, MD², Allison



POSTER PRESENTATIONS AND ABSTRACTS

C Petrini, MD³, Alexis Melnick, MD³ and Zev Rosenwaks, M.D.¹, ¹The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ²New York Presbyterian Weill Cornell, New York, NY, ³Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, New York, NY

- P-257 EFFECT OF DUAL TRIGGER ON THE OUTCOME OF CONTROLLED HYPERSTIMULATION IN ART CYCLES.** N Sanjeeva Reddy, MD (Obstetrics and Gynecology), DGO¹, Ujwala Jati, MS (Ob & Gyn)², Radha Vembu, DGO, DNB (Obstetrics and Gynecology), MNAMS, FICS, FIGOG, PhD³, Monna Pandurangi, MD (Ob & Gyn)³ and Siddhartha Nagireddy, MCh (Reproductive medicine and Surgery)⁴, ¹Professor and Head, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ²Fellow in Reproductive Medicine, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ³Associate Professor, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁴Assistant Professor, Sri Ramachandra Institute of Higher Education and Research, Chennai, India

NURSING

- P-258 CONTENT AND ACCURACY OF FERTILITY COUNSELING VIA ASYNCHRONOUS DIGITAL WOMEN'S HEALTH CLINICS.** Lindsey N Ulin, B.S.¹ and Rashmi Kudesia, MD², ¹McGovern Medical School at The University of Texas Health Science Center at Houston, Houston, TX, ²CCRM Fertility Houston, Houston, TX
- P-259 WITHDRAWN**
- P-260 OPTIMIZING UTILIZATION OF EMOTIONAL SUPPORT DURING INFERTILITY TREATMENT.** Sarah A Hirsch, DO¹, Pippa Simpson, PhD², Kathryn E Flynn, PhD¹, Melodee Nugent, MA¹ and Abbey Kruper, PsyD¹, ¹Medical College of Wisconsin, Milwaukee, WI, ²Affiliation not provided
- P-261 A NEW ERA IN MEDICINE: SOCIAL MEDIA AND PATIENT CARE.** Anisa Hussain, MA¹, Jacqueline Sehring, MA¹, Elisabeth Rosen, BS, MA¹, Lauren Grimm, MA¹, Jody M Esguerra, MA¹, Karine Matevossian, DO², Ruchi Kaushik Amin, MD³, Roohi Jeelani,

MD¹ and Angeline Beltsos, MD¹, ¹Vios Fertility Institute, Chicago, IL, ²Advocate Lutheran General Hospital, Park Ridge, IL, ³Wayne State University, Detroit, MI

- P-262 DOES FERTILE YOGA CLASS REDUCE STRESS AND SADNESS AND PROVIDE HOPE FOR INFERTILE PATIENTS IN TREATMENT IN A PRIVATE FERTILITY PRACTICE?** Lisa Rosenthal, BA, MA¹, Hannah Shakartzi, M.D.², Shehzeen Kamil, M.D.², Robin Mangieri, MA¹, Mark Leondires, M.D.¹ and Spencer S Richlin, M.D.¹, ¹Reproductive Medicine Associates of Connecticut, Norwalk, CT, ²The Stamford Hospital Dept of OB/GYN, Stamford, CT
- P-263 EFFECT OF MUSIC IN REDUCING PATIENT ANXIETY DURING COLPOSCOPY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS.** Ahmed M. Abdelhakim, MBBCh¹, Ahmed Samy, MD¹ and Ahmed M Abbas, MD², ¹Kasr Al-Ainy Faculty of Medicine, Cairo University, Cairo, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt

OBESITY

- P-264 DIETARY PATTERNS ARE ASSOCIATED WITH OVARIAN RESERVE IN OVERWEIGHT AND OBESE WOMEN IN A REPRODUCTIVE AGE COHORT.** Ashley Eskew, MD, MSCI¹, Bronwyn Bedrick, BA², Joan Riley, PhD, HCLD³, Jorge E Chavarro, MD, Sc.D.⁴ and Emily S Jungheim, MD, MSCI¹, ¹Washington University School of Medicine, St. Louis, MO, ²Washington University in St. Louis, Saint Louis, MO, ³Washington University School of Medicine, St. Louis, MO, ⁴Harvard School of Public Health, Boston, MA
- P-265 OBESITY CAUSES SIGNIFICANT CHANGES TO THE HUMAN SPERM PROTEOME.** Taylor Pini, PhD¹, Jason C Parks, BS¹, Monika Dzieciatkowska, PhD², Kirk C Hansen, PhD², William B Schoolcraft, MD² and Mandy G Katz-Jaffe, Ph.D.¹, ¹Colorado Center for Reproductive Medicine, Lone Tree, CO, ²Affiliation not provided
- P-266 IMPACT OF OBESITY ON OOCYTE CRYOSURVIVAL AFTER VITRIFICATION.** Luis R. Hoyos, M.D.¹, Connie Y Cheng, M.D.², Carrie Riestenberg, MD³, Abigail A. Armstrong, M.D.² and Molly M Quinn, MD³, ¹UCLA, Los Angeles, CA, ²Affiliation not provided, ³University of California, Los Angeles, Los Angeles, CA



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P-267 OBESITY IS ASSOCIATED WITH INCREASED QUANTITY BUT NO DIFFERENCE IN QUALITY OF OOCYTES AND EMBRYOS IN WOMEN WITH LOW ANTI-MULLERIAN HORMONE LEVEL. Gufeng Xu, M.D., Ph.D.¹ and Catherine Racowsky, PhD², ¹Brigham and Women's Hospital, BOSTON, MA, ²Brigham and Women's Hospital, Boston, MA

P-268 ABC TRIAL: BODY MASS INDEX AND PERCENTAGE BODY FAT ARE NOT DIFFERENT IN POSITIVE PREDICTIVE VALUE OF MISCARRIAGE OR PRETERM DELIVERY IN PATIENTS UNDERGOING IVF. Julia G Kim, MD, MPH¹, George Patounakis, MD, PhD², Caroline R Juneau, MD³, Jason M Franasiak, MD¹, Scott J Morin, MD⁴, Shelby A Neal, MD¹, Ashley W Tiegs, MD¹, Emily K Osman, MD¹, Brent M Hanson, MD¹, Emre Seli, M.D.¹ and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²IVI-RMA Florida, Lake Mary, FL, ³Audubon Fertility, New Orleans, LA, ⁴IVI-RMA Northern California, San Francisco, CA

P-269 LIFESTYLE MODIFICATIONS IN MALE PARTNERS OF SUBFERTILE COUPLES IN WHICH THE SPOUSE IS OBESE IMPROVES THE CHANCES OF THE COUPLE TO CONCEIVE. Matea Belan, MSc¹, Belina Carranza-Mamane, MD², Youssef AinMelk, MD³, Marie-Hélène Pesant, MD³, Karine Duval, PhD¹, Farrah Jean-Denis, MSc¹, Marie-France Langlois, MD¹ and Jean-Patrice Baillargeon, MD⁴, ¹Research Center of the Centre Hospitalier Universitaire de Sherbrooke, Sherbrooke, QC, Canada, ²Université de Sherbrooke, Sherbrooke, QC, Canada, ³Université de Sherbrooke - Department of Obstetrics and Gynecology, Sherbrooke, QC, Canada, ⁴Université de Sherbrooke, Department of Medicine, Sherbrooke, QC, Canada

P-270 IMPACT OF BMI ON PREGNANCY OUTCOMES WITH RESPECT TO DIFFERENTIAL TSH LEVELS. Maria Bustillo, M.D.¹, Ineabelle Collazo, BS², Jessica Lapalme Ricard, BS², Juergen Eisermann, M.D.¹, Nicholas Hendon, BS¹ and Himanshu Arora, PhD², ¹IVFMD, South Florida Institute for Reproductive Medicine, MIAMI, FL, ²University of Miami Miller School of Medicine, Miami, FL

P-271 THE EFFECT OF BODY MASS INDEX (BMI) ON INTRAUTERINE INSEMINATION (IUI) CYCLE SUCCESS. Rachel M. Whynott, M.D.¹, Karen M Summers, MPH CHES², Amy E Sparks, PhD³ and Rachel Mejia, D.O.², ¹University of Iowa

Hospitals and Clinics, Iowa City, IA, ²University of Iowa, Iowa City, IA, ³University of Iowa Center for Advanced Reproductive Care, Iowa City, IA

P-272 DIET, OBESITY, AND OVARIAN RESERVE IN A HEALTHY REPRODUCTIVE AGE COHORT. Bronwyn Bedrick, BA¹, Ashley Eskew, MD², Jorge E Chavarro, MD, Sc.D.³, Joan Riley, PhD, HCLD⁴ and Emily S Jungheim, MD, MSCI², ¹Washington University in St. Louis, Saint Louis, MO, ²Washington University School of Medicine, St. Louis, MO, ³Harvard School of Public Health, Boston, MA, ⁴Washington University School of Medicine, St. Louis, MO

OVARIAN HYPERSTIMULATION SYNDROME

P-273 A NOVEL GnRH ANTAGONIST PROTOCOL BY SWITCHING ANTAGONIST TO PROVERA TO PREVENT PREMATURE LUTEINIZING HORMONE SURGE WHEN PATIENTS TURNED OUT TO BE AT HIGH RISK OF OVARIAN HYPERSTIMULATION SYNDROME DURING OVARIAN STIMULATION. Ting-Chi Huang, MD¹, Jiann-Loung Hwang, MD², Kuang-Han Chao, M.D.¹, Mei-Jou Chen, MD, PhD¹, Chu-Chun Huang, MD¹ and Shee-Uan Chen, MD, PhD¹, ¹National Taiwan University Hospital, Taipei, Taiwan, ²IVF Taipei, Taipei, Taiwan

P-274 ANALYSIS OF THE EFFECT OF A DELAYED SECOND DOSE OF GONADOTROPIN RELEASING HORMONE-AGONIST (GnRH-A) ON OOCYTE AND BLASTOCYST QUALITY AND RISK OF OVARIAN HYPERSTIMULATION SYNDROME (OHSS). Emily Michelle Weidenbaum, MD¹, Jennifer K Blakemore, MD² and James A Grifo, MD, PhD³, ¹New York University, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY

P-275 WITHHOLDING LUTEAL HCG IS ASSOCIATED WITH DECREASED LIVE BIRTH (LB) IN WOMEN AT HIGH RISK FOR OVARIAN HYPERSTIMULATION SYNDROME (OHSS) DESPITE "INTENSIVE" LUTEAL SUPPORT WITH INTRAMUSCULAR PROGESTERONE (IMP). Lauren A Bishop, MD¹, Natalie Clark Stentz, MD, MSCE², Micah J Hill, DO³, Kate Devine, MD⁴, Saioa Torrealday, MD⁵, Eric A Widra, M.D.⁶, Alan H DeCherney, MD³ and Frank E Chang, MD⁷, ¹NIH, Bethesda, MD, ²Shady Grove Fertility, Atlanta, GA, ³National Institute of Child Health



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and Human Development, NIH, Bethesda, MD, ⁴Shady Grove Fertility, Washington D.C., DC, ⁵Walter Reed Military Medical Center, Bethesda, MD, ⁶SG Fertility, Washington, DC, ⁷Shady Grove Fertility, Rockville, MD

P-276 MATERNAL AND FETAL OUTCOMES AFTER OVARIAN HYPERSTIMULATION SYNDROME: A ROCHESTER EPIDEMIOLOGY PROJECT (REP) STUDY. Ajleeta Sangtani, MD, Zaraq Khan, MD and Maryama Ismail, BS, Mayo Clinic, Rochester, MN

P-277 PREDICTION OF SEVERE OVARIAN HYPERSTIMULATION SYNDROME IN WOMEN UNDERGOING IN VITRO FERTILIZATION USING DAY 3 ESTRADIOL LEVELS, COLLECTED OVA, AND THE NUMBER OF FOLLICLES. Ivan Madrazo, MD¹, Ginna Milena Ortiz, MD¹, Juan José Suárez, MD², Josue J. Hidalgo, MD², Monserrat Fabiola Vélez, MD² and Esther López-Bayghen, PhD³, ¹Ingenes Mexico, Mexico City, DF, Mexico, ²Affiliation not provided, ³Centro de Investigación y Estudios Avanzados IPN, México, EM, Mexico

P-280 CIRCULATING MIR-181d-5p LEVELS AS PREDICTOR OF OVARIAN RESPONSE IN WOMEN UNDERGOING CONTROLLED OVARIAN STIMULATION. Maria Gabriela Mulato, BSc¹, Daniela Paes de Almeida Ferreira Braga, PhD², Amanda Souza Setti, MSc², Assumpto Iaconelli Jr., MD², Edson Borges Jr., PhD² and Murilo Vieira Geraldo, PhD¹, ¹UNICAMP, Campinas, Brazil, ²Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil

P-281 PHYSICIANS SHOULD AVOID CHANGING A PATIENT'S OVARIAN STIMULATION PROTOCOL FOR THE PURPOSE OF IMPROVING LABORATORY OUTCOMES. Kaitlyn Wald, MD, Eleni A Greenwood, MD, MSc, Marcelle I Cedars, MD and Mitchell P Rosen, MD, HCLD, University of California San Francisco, San Francisco, CA

P-282 CAN TREATMENT CHOICE AFFECT COST OF THERAPY IN PATIENTS PREDICTED TO BE HIGH-RESPONDERS? RESULTS OF AN ECONOMIC ANALYSIS OF THE MENOPUR IN GNRH ANTAGONIST SINGLE EMBRYO TRANSFER - HIGH RESPONDER (MEGASET-HR) TRIAL Andrew F Khair, PhD, MBA¹, Winnie Nelson, PharmD, MS, MBA¹, Anshul Sinha, B.Tech¹, Masakazu Ando, PhD¹, Patrick W Heiser, PhD¹, Jared C Robins, MD² and Gaurang S Daftary, MD, MBA¹, ¹Ferring Pharmaceuticals Inc, Parsippany, NJ, ²Northwestern University, Chicago, IL

P-283 A SIMULATED USE STUDY OUTLINING DIFFERENCES IN HANDLING ERRORS AND PREFERENCE BEFORE AND AFTER USE OF CURRENTLY AVAILABLE RECOMBINANT HUMAN FOLLICLE-STIMULATING HORMONE (R-HFSH) PEN INJECTORS. Salvatore Longobardi, MD¹, Anke Seidler, MBA¹, Julian G. Martins, MA², Francois P.M Beckers, PhD¹, William MacGillivray, MHist³ and Thomas D'Hooghe, MD, PhD¹, ¹Merck Healthcare KGaA, Darmstadt, Germany, ²Springer Healthcare, Paris, France, ³Ifop, Paris, France

P-284 EFFECT OF VARIANT B LH POLYMORPHISM (rs1800447)(TREP 8 ARG) IN AN EGYPTIAN IVF POPULATION ON OVARIAN RESPONSE IN ASSISTED REPRODUCTION. Mohamad Ghanem, MD¹, Ekbal Mohamed Abohashem, MD², Nessma Ahmed Nasser, MD³, Nawal A Ghareeb, MD⁴, Reham M El-farahaty, MD⁴ and Adel Alboghdady, ms⁴, ¹Mansoura Integrated fertility center, Mansoura, Egypt, ²Mansoura

OVARIAN STIMULATION

P-278 EFFECTIVENESS AND OPTIMAL DOSE OF CHLORMADINONE ACETATE (CMA) AS PROGESTIN-PRIMED OVARIAN STIMULATION. Airi Kobayashi, RN¹, Emiko Funahashi, RN¹, Chiharu Tanaka, RN¹, Sachiko Nonaka, RN¹, Atsuko Tanaka, RN¹, Marina Kiuchi, RN¹, Yumi Suzuki, Medical doctors clark¹, Chiyuri Kumao, BS¹, Mizuho Takahashi, BS¹, Noriyuki Okuyama, M.Sc.¹, Nobuya Aono, Ph.D.¹, Toshihiro Tai, M.D., Ph.D.¹, Mayumi Toya, M.D., Ph.D.¹, Hideki Igarashi, M.D., Ph.D.¹, Suguru Kikuchi, M.D., Ph.D.¹, Tomoko Hashimoto, M.D., Ph.D.² and Koichi Kyono, M.D., Ph.D.¹, ¹Kyono ART Clinic Takanawa, Tokyo, Japan, ²Kyono ART clinic, Human Ovarian tissue Preservation Enterprise (HOPE), Tokyo, Japan

P-279 DOES EXTENDING CONTROLLED OVARIAN HYPERSTIMULATION DURING A GNRH ANTAGONIST PROTOCOL IN VITRO FERTILIZATION CYCLE AFFECT OOCYTE QUALITY? Sydney Chang, MD¹, Taraneh Gharib Nazem, MD¹, Carlos Hernandez-Nieto, MD², Dmitry Gounko, MA², Beth McAvey, MD¹, Daniel E. Stein, MD¹ and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY



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Faculty of medicine, Mansoura, Egypt, ³clinical pathology department, faculty of medicine, Mansoura university, Mansoura, Egypt, ⁴Affiliation not provided

P-285 EFFECT OF OVARIAN STIMULATION OF OOCYTE DONORS ON IN-VITRO FERTILIZATION OUTCOMES. Heather S Hipp, MD¹, Audrey J Gaskins, ScD¹, Zsolt Peter Nagy, MD, PhD², Sarah M Capelouto, MD³, Daniel B Shapiro, MD² and Jessica B Spencer, MD, MSc¹, ¹Emory University, Atlanta, GA, ²Reproductive Biology Associates, Atlanta, GA, ³The University of Texas, Southwestern Medical Center, Dallas, TX

P-286 THE IMPACT OF FOLLISTATIN HORMONE ON OVARIAN RESPONSE. Yahia Mohamed El-Faissal, M.D., M.Sc.¹, Alaa Amer, B.Sc.², Mohamed A Aboulghar, M.D.³, Gamal Serour, M.D.⁴ and Ragaa Mansour, M.D., Ph.D.², ¹Cairo University, Cairo, Egypt, ²The Egyptian IVF-ET center, Maadi, Cairo, Egypt, ³Cairo University, Egyptian IVF center, Cairo, Egypt, ⁴The Egyptian IVF-ET center, Maadi, Al Azhar University, Cairo, Egypt

P-287 ORAL OVULATION INDUCTION MEDICATIONS VERSUS GONADOTROPINS FOR UNEXPLAINED INFERTILITY: A SYSTEMIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS. Jessica R Zolton, DO¹, Peter G Lindner, M.D.², Nancy Terry, B.S., M.L.S.³, Alan H DeCherney, MD¹ and Micah J Hill, DO¹, ¹National Institute of Child Health and Human Development, NIH, Bethesda, MD, ²Walter Reed National Military Medical Center, Bethesda, MD, ³NIH, Bethesda, MD

P-288 OVULATION RATE WITH LETROZOLE STAIR-STEP PROTOCOL AND IN SUBSEQUENT LETROZOLE CYCLE. Reeva B Makhijani, MD¹, Chantal Bartels, MD², Jeffrey Thorne, MD¹, Grow R Daniel, MD¹, John Nulsen, MD¹, Lawrence Engmann, MD¹ and Claudio Benadiva, MD¹, ¹Center for Assisted Reproductive Services, University of Connecticut School of Medicine, Farmington, CT, ²Center for Advanced Reproductive Services, University of Connecticut School of Medicine, Farmington, CT

P-289 SINGLE DOSE VERSUS 5 DAY DOSING OF AN AROMATASE INHIBITOR FOR OVULATION INDUCTION. Kaitlin McGrail, MD¹, Susan C Conway, MD², John Stormont, MD², Sarah Buzhardt, MD¹ and Neil Chappell, MD, MSc¹, ¹LSU OB/GYN (Baton Rouge) Residency

Program, Baton Rouge, LA, ²Fertility Answers, Baton Rouge, LA

P-290 PHASE 4, NON-INTERVENTIONAL, OPEN LABEL STUDY EVALUATING DOSING CHARACTERISTICS AND OVARIAN RESPONSE USING THE REDESIGNED FOLLITROPIN ALFA PEN INJECTOR IN ASSISTED REPRODUCTIVE TECHNOLOGIES (ART) TREATMENT IN ASIA: IMPROVE STUDY. Bum Chae Choi, MD, PhD¹, Canquan Zhou, MD², Hong Ye, MD³, Sun Yun, M.D.⁴, Ying Zhong, Doctor⁵, Fei Gong, PhD⁶, Nadezda Abramova, MD, PhD⁷, Salvatore Longobardi, MD⁷, Teoman Ulas, MD⁸ and Thomas D'Hooghe, MD, PhD⁷, ¹Creation and Love Women's Hospital, Gwang-ju, Korea, Republic of (South), ²First Affiliated Hospital, Sun Yat-sen University, Guangzhou, Guangdong, China, ³Chongqing Maternity and Child Healthcare Hospital, Chongqing Shi, China, ⁴Center for Reproductive Medicine, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, China, ⁵Chengdu Jinjiang District Maternal and Child Health Hospital, Chengdu Shi, China, ⁶Reproductive and Genetic Hospital of CITIC-Xiangya, Changsha, Hunan, China, ⁷Merck Healthcare KGaA, Darmstadt, Germany, ⁸Merck Pte Ltd, Ascent, Singapore

P-291 USE OF LUTEINIZING HORMONE SUPPLEMENTATION FOR OVARIAN STIMULATION IN IVF/ICSI CYCLES OF WOMEN WITH GOOD OVARIAN RESERVE. Liang Hsuan Chen, MD, Tzu-Hsuan Chin, MD, Ya-Chiung Hsu, MD, Shang Yu Huang, MD, Hsing-Tse Yu, MD, Hsien-Ming Wu, MD, PhD, Chia-Lin Chang, MD, Hong-Yuan Huang, MD, Hsin-Shih Wang, PhD and Yung-Kuei Soong, MD, Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital Linkou Medical Center, Taoyuan, Taiwan R.O.C., Taipei, Taiwan

P-292 CHOOSING THE OPTIMUM MEDICATION AND DOSE IN OVULATION INDUCTION-INTRAUTERINE INSEMINATION CYCLES (OI-IUI) TO AVOID MULTIPLE GESTATION PREGNANCIES. M. Blake Evans, DO¹, Micah J Hill, DO¹, Kate Devine, MD², Alan H DeCherney, MD¹ and Natalie Clark Stentz, MD, MSCE³, ¹NIH-NICHD, Bethesda, MD, ²Shady Grove Fertility, Washington D.C., DC, ³Shady Grove Fertility, Atlanta, GA



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P-293 DO INFERTILE PATIENTS WHO TEST POSITIVE FOR GROWTH DIFFERENTIATION FACTOR 9 (GDF9) POLYMORPHISM C447T EXHIBIT AN ALTERED RESPONSE TO CONTROLLED OVARIAN HYPERSTIMULATION (COH)? Jenna Friedenthal, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Teresa A. Cacchione, MS, CGC² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-294 OOCYTE RECRUITMENT OF PATIENTS SUBMITTED TO THE NEW OVARIAN STIMULATION REGIMEN USING PROGESTIN TO BLOCK THE LH SURGE. Michelli Suemi Tanada, BSc, Elen Souto Vieira Porto, BSc, Ivan Henrique Yoshida, BSc, MSc, Renato de Oliveira, MD, PhD, Emerson Barchi Cordts, MD, MSc and Caio Parente Barbosa, MD, PhD, Instituto Ideia Fertil de Saúde Reprodutiva, Santo André, Brazil

P-295 COMPARISON OF TRADITIONAL AND STEP UP PROTOCOLS WITH LETROZOLE. Shelun Tsai, MD, Stephanie Smeltzer, MD and Thomas M. Price, MD, Division of Reproductive Endocrinology and Infertility, Duke University Medical Center, Durham, NC

P-296 CORIFOLLITROPIN ALFA IN THE ULTRASHORT GONADOTROPIN-RELEASING HORMONE AGONIST (GNRHA) PROTOCOL: A NOVEL PATIENT-FRIENDLY ALTERNATIVE. Tzu-Ning Yu, MD, MS¹, Yung-Liang Liu, MD², Chi-Huang Chen, MD, PhD¹ and Chii-Ruey Tzeng, MD, MPH¹, ¹Taipei Medical University Hospital, Taipei, Taiwan, ²Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan

P-297 FLEXIBLE VERSUS FIXED GONADOTROPIN RELEASING HORMONE ANTAGONIST (GnRH-ANT) STARTING DAY DURING CONTROLLED OVARIAN HYPERSTIMULATION FOR IN VITRO FERTILIZATION (IVF): A SYSTEMATIC REVIEW & META-ANALYSIS. Clara Q. Wu, M.D., Cheng Wei Xiao, M.D., Paul Claman, M.D. and Doron Shmorgun, M.D., Ottawa Fertility Centre, Ottawa, ON, Canada

Ahter TANAY Tayyar, M.D.¹, Richard Thomas Scott Jr., MD², Bulent Tiras, M.D.³ and Emre Seli, M.D.², ¹M.D., Istanbul, Turkey, ²IVI-RMA New Jersey, Basking Ridge, NJ, ³Prof.,Acibadem Maslak Hospital Assisted Reproductive Techniques Unit,, Istanbul, Turkey

P-299 PREVENTION OF PREMATURE LUTEINIZING HORMONE SURGE IN POOR RESPONDERS WITH TWICE-DAILY GNRH-ANTAGONIST ADMINISTRATION. Nigel Pereira, MD¹, Nirali J Shah, MD², Isaac Kligman, M.D.¹ and Zev Rosenwaks, M.D.³, ¹Ronald O. Perlman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY, ³The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-300 TWELVE PREGNANCIES AFTER SURGICAL ACTIVATION OF FOLLICLES IN POOR RESPONDER PATIENTS. Atsushi Tanaka, M.D., Ph.D.¹, Motoi Nagayoshi, M.D.¹, Izumi Tanaka, Ph.D.¹, Takashi Yamaguchi, M.D., Ph.D.¹, Motoharu Ohno, M.D.¹, Masayuki Shimada, Ph.D.² and Kazuhiro Kawamura, M.D., Ph.D.³, ¹Saint Mother Hospital, Kitakyushu, Japan, ²Hiroshima University Graduate School of Biosphere Sciences, Higashi-Hiroshima, Japan, ³International University Health and Welfare School of Medicine, Narita, Japan

P-301 APPLICATION OF CONTROLLED OVARIAN HYPERSTIMULATION WITH AGONIST-ANTAGONIST PROTOCOL IN POSEIDON GROUP 3 AND GROUP 4 PATIENTS WITH DIMINISHED OVARIAN RESERVE. Rui Yang, Doctor¹, Xiaoguo Du, Master¹, Lixue Chen, M.D.² and Xinna Chen, Professor¹, ¹Peking University Third Hospital, Beijing, China, ²Affiliation not provided

P-302 CONVENTIONAL PROTOCOL VERSUS MINIMAL OVARIAN STIMULATION IN PATIENTS WITH POOR REPRODUCTIVE PROGNOSIS ACCORDING TO POSEIDON CRITERIA. Mauro Cozzolino, M.D.¹, Gustavo N Cecchino, M.D.² and Nicolas Garrido, PhD³, ¹Fundación IVI, Valencia, Spain, ²IVIRMA Madrid, Madrid, Spain, ³IVI Foundation, IIS La Fe, Valencia, IIS, Spain

P-303 THE EFFECTIVENESS OF TRANSDERMAL TESTOSTERONE GEL 1% (ANDROGEL) FOR POOR RESPONDERS UNDERGOING IN VITRO FERTILIZATION. Anjali Chaudhary, MD DNB, CONSULTANT AAROGYA HOSPITAL, Delhi, India

OVARIAN STIMULATION - POOR RESPONDERS

P-298 IN WOMEN WITH POOR OVARIAN RESPONSE, INTRAOVARIAN INJECTION OF AUTOLOGOUS PLATELET RICH PLASMA IMPROVES OVARIAN RESERVE AND IVF OUTCOME PARAMETERS. Yigit Cakiroglu, M.D.¹, Ayse Saltik, M.D.¹, Aysen Yuceturk, M.D.¹, Ozge Karaosmanoglu, M.D.¹,



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P-304 EFFECTS OF DIFFERENT PRETREATMENTS PRIOR TO GnRH ULTRASHORT AGONIST COMBINED WITH ANTAGONIST REGIMEN ON THE CLINICAL OUTCOMES OF EXPECTED POR PATIENTS.

Xiaoguo Du, Master, Rui Yang, Doctor and Xinna Chen, Professor, Peking University Third Hospital, Beijing, China

P-309 THE IDENTIFICATION OF CHROMOSOME DELETIONS IN TROPHECTODERM BIOPSIES IS SIGNIFICANTLY REPRESENTATIVE OF THE ENTIRE BLASTOCYST.

Lauren Henry, BS, Rachel S Mann, BS, MS, Susanna McReynolds, PhD, Nathan McCubbin, BS, Taylor Jarvis, BS, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

PREIMPLANTATION GENETIC TESTING

P-305 IMPACT OF PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) ON GESTATIONAL CARRIER (GC) CYCLES IN THE UNITED STATES.

Reeva B Makhijani, MD¹, Madeline Coulter, BA¹, Jeffrey Thorne, MD¹, Chantal Bartels, MD², John Nulsen, MD¹, Lawrence Engmann, MD¹, Claudio Benadiva, MD¹ and Grow R Daniel, MD¹, ¹Center for Assisted Reproductive Services, University of Connecticut School of Medicine, Farmington, CT, ²Center for Advanced Reproductive Services, University of Connecticut School of Medicine, Farmington, CT

P-310 IMPACT OF DIFFERENT DEGREES OF GENETIC MOSAICISM IN THE KINETIC PROFILE OF THE HUMAN EMBRYO.

Angel M Bastida, MSc¹, Carmen Vidal, M.D., Ph.D.¹, Lorena Rodrigo, PhD², Amparo Mercader, PhD¹, Carmen Rubio, PhD², Juan Giles, M.D., Ph.D.¹, Jose Alejandro Remohi, MD, PhD³ and M^a José de los Santos, PhD¹, ¹IVIRMA Valencia, Valencia, Spain, ²Igenomix Spain, Paterna (Valencia), Spain, ³IVIRMA Valencia,, Valencia, Spain

P-306 NGS EUPLOID EMBRYOS HAVE HIGHER DELIVERY RATES THAN THOSE DIAGNOSED AS EUPLOID BY aCGH/SNP.

Caroline McCaffrey, Ph.D., David H. McCulloh, Ph.D., Xinjian He, MS, Patty Ann Labella, BS, Melicia Clarke-Williams, BA, Mary Elizabeth Fino, MD and James A Grifo, MD, PhD, NYU Langone Fertility Center, New York, NY

P-311 FOUR YEARS OF PROSPECTIVE MOSAIC EMBRYO TRANSFER: A SINGLE CENTER'S EXPERIENCE.

Andria G Besser, MS¹, Jennifer K Blakemore, MD², Elizabeth J Del Buono, MS³, Caroline McCaffrey, Ph.D.⁴, David H. McCulloh, Ph.D.⁵ and James A Grifo, MD, PhD⁶, ¹NYU Langone Fertility Center, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³Sarah Lawrence College, Bronxville, NY, ⁴New York Langone Health, NYU Fertility Center, New York, NY, ⁵NYU Langone Health, New York, NY, ⁶NYU Langone Prelude Fertility Center, New York, NY

P-307 PREIMPLANTATION GENETIC TESTING ALTERS THE SEX RATIO: AN ANALYSIS OF 44,939 CYCLES FROM THE SOCIETY FOR ASSISTED REPRODUCTIVE TECHNOLOGY DATABASE.

Kathryn L Shaia, MD, MHA¹, Benjamin S Harris, MD, MPH², Tracy Truong, MS³, Carl F. Pieper, DrPH³ and Anne Z Steiner, MD, MPH², ¹Duke Center for Applied Therapeutics, Department of Surgery, Durham, NC, ²Duke University Medical Center, Durham, NC, ³Department of Biostatistics & Bioinformatics, Duke University Medical Center, Durham, NC

P-312 PREIMPLANTATION GENETIC TESTING (PGT) AND FROZEN EMBRYO TRANSFER (FET) SYNERGISTICALLY DECREASE PRE-TERM DELIVERY IN PATIENTS UNDERGOING IN VITRO FERTILIZATION (IVF).

Luke Y. Ying, M.D.¹, Mark D. Sanchez, M.D.¹, James Baron, M.D.¹ and Ying Ying, Ph.D.², ¹HCA West Florida GME Consortium/Brandon Regional Hospital, Brandon, FL, ²University of South Florida Department of Obstetrics and Gynecology, Tampa, FL

P-308 BLASTOCYST CONVERSION RATE AND PLOIDY IN TRANSLOCATION CARRIERS.

Iris Insogna, MD, MBE, Andrea Lanes, PhD, Ann M Thomas, PhD, Lori J Dobson, MS, LCGC, Elizabeth S Ginsburg, MD, Catherine Racowsky, PhD and Elena Yanushpolsky, MD, Brigham & Women's Hospital, Boston, MA

P-313 HOW MANY SINGLE EMBRYO TRANSFERS WOULD BE NEEDED TO PERFORM AN EUPLOID EMBRYO TRANSFER ACCORDING TO THE AGE OF THE PATIENT?

Carmen Rubio, PhD¹, Mónica Clemente-Ciscar, PhD¹,



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Lorena Rodrigo, PhD¹, Jorge Jimenez-Almazán, PhD¹ and Carlos Simon, MD, PhD², ¹Igenomix Spain, Paterna (Valencia), Spain, ²University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain

P-314 ARTIFICIAL VISION AND MACHINE LEARNING DESIGNED TO PREDICT PGT-A RESULTS. Alejandro Chavez-Badiola, MD¹, Adolfo Flores-Saiffe Farias, MSc, PhD², Gerardo Mendizabal-Ruiz, PhD³, Andrew J Drakeley, MD FRCOG⁴, Rodolfo Garcia-Sánchez, MSc⁵ and John J Zhang, MD, PhD⁶, ¹New Hope Fertility Center Mexico, Mexico City, EM, Mexico, ²New Hope Fertility Center, Guadalajara, JA, Mexico, ³Departamento de Ciencias Computacionales, Universidad de Guadalajara, Guadalajara, JA, Mexico, ⁴Hewitt Centre for Reproductive Medicine, Liverpool Women's Hospital, Liverpool, United Kingdom, ⁵New Hope Fertility Center Mexico, Guadalajara, JA, Mexico, ⁶New Hope Fertility Center, New York, NY

P-315 REBIOPSY OF BLASTOCYSTS REVEALS THAT NEXT GENERATION SEQUENCING PROVIDES EXCELLENT CLINICAL ACCURACY DESPITE MINOR DISCORDANCES. David H. McCulloh, Ph.D.¹, Nidhee Sachdev, MD², Caroline McCaffrey, Ph.D.³ and James A Grifo, MD, PhD⁴, ¹NYU Langone Health, New York, NY, ²OC Fertility, Newport Beach, CA, ³New York Langone Health, NYU Fertility Center, New York, NY, ⁴NYU Langone Prelude Fertility Center, New York, NY

P-316 A UNIVERSAL SINGLE TUBE PCR-BASED LIBRARY PREPARATION FOR PGT-A ALLOWING CROSS-PLATFORM NGS SEQUENCING. Melinda Jane Jasper, PhD¹, Steven Anthony Myers, PhD¹, Kimberly Warren, B BTech. (Hons)², Lann Tay, B Sc.² and Sandra Protopsaltis, Associate Diploma Medical Laboratory Science³, ¹PerkinElmer Health Sciences (Australia) Pty Ltd, Thebarton, SA, Australia, ²Affiliation not provided, ³PerkinElmer Health Sciences, Adelaide, SA, Australia

P-317 HOW IMPORTANT IS IT TO VISUALIZE 2PN IN ZYGOTES DESTINED FOR PGT-A TESTING BY NEXT GENERATION SEQUENCING (NGS)? Caroline McCaffrey, Ph.D.¹, David H. McCulloh, Ph.D.², Frederick L. Licciardi,

M.D.², James A Grifo, MD, PhD³, Hsiao-Ling Lee, M.S.³, Xinjian He, MS⁴ and Andria G Besser, MS⁵, ¹New York Langone Health, NYU Fertility Center, New York, NY, ²NYU Langone Health, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY, ⁴New York University Fertility Center, New York, NY, ⁵NYU Langone Fertility Center, New York, NY

P-318 INDIVIDUAL CHROMOSOME MOSAICISM RATES AFTER PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY: IMPLICATIONS FOR MECHANISMS RELATED TO THE EARLY STAGES OF EMBRYO DEVELOPMENT. Amy Jones, MS¹, Ping Zou, PhD¹, Minjae Kwon, MS¹, Melissa Wilmarth, BS¹, Cecilia Rios, CG², Ashlie M West, BS¹ and Jordan Clarke, MS¹, ¹Ovation Fertility, Franklin, TN, ²Ovation Genetis, Henderson, NV

P-319 RATES OF EMBRYONIC MOSAICISM ARE CONSISTENT AMONGST EMBRYOLOGISTS PERFORMING OR LOADING TROPHOCTODERM BIOPSIES FOR PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY. Emily K Osman, MD, Shelby A Neal, MD, Ashley W Tiegs, MD, Brent M Hanson, MD, Julia G Kim, MD, MPH, Jason M Franasiak, MD and Richard Thomas Scott Jr., MD, IVI-RMA New Jersey, Basking Ridge, NJ

P-320 WITHDRAWN

P-321 IN VITRO FERTILIZATION (IVF) WITH PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) IS NOT COST EFFECTIVE TO ACHIEVE A LIVE BIRTH COMPARED TO IVF ALONE IN DONOR OOCYTE CYCLES. Maria Facadio Antero, MD¹, Bhuchitra Singh, M.D., MPH, MS², Megan E Gornet, MD³, William G. Kearns, MD, PhD⁴, Valerie L Baker, MD⁵ and Mindy S Christianson, MD⁶, ¹John Hopkins University School of Medicine, Lutherville, MD, ²Johns Hopkins School of Medicine, Baltimore, MD, ³John Hopkins University School of Medicine, Baltimore, MD, ⁴Johns Hopkins University School of Medicine, Advagenix, 9430 Key West Hwy, Suite 130, MD, ⁵Johns Hopkins University School of Medicine, Division of Reproductive Endocrinology and Infertility, Lutherville, OR, ⁶John Hopkins University School of Medicine, Lutherville, OR



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- P-322 THE COST-EFFECTIVENESS OF PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A): AN ANALYSIS OF 153,865 SART CYCLES.** Malinda S Lee, MD, MBA¹, Katherine T Lofgren, MPH², Ann M Thomas, PhD¹, Andrea Lanes, PhD¹, Randi H. Goldman, M.D.³, Elizabeth S Ginsburg, MD¹ and Mark D Hornstein, MD¹, ¹Brigham and Women's Hospital, Boston, MA, ²Harvard University, Cambridge, MA, ³Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY
- P-323 A COST EFFECTIVENESS ANALYSIS OF PREIMPLANTATION GENETIC TESTING FOR SICKLE CELL TRAIT COUPLES.** Christina N Cordeiro Mitchell, M.D.¹, Bhuchitra Singh, M.D., MPH, MS², Rakhi Naik, M.D., M.H.S.³, Valerie L Baker, MD⁴, Sophie M Lanzkron, M.D., M.H.S.³, Mindy S Christianson, MD⁵ and Lydia H Pecker, M.D.⁶, ¹Johns Hopkins University School of Medicine, Lutherville-Timonium, MD, ²Johns Hopkins School of Medicine, Baltimore, MD, ³Johns Hopkins University School of Medicine, Medicine, Baltimore, MD, ⁴Johns Hopkins University School of Medicine, Division of Reproductive Endocrinology and Infertility, Lutherville, OR, ⁵Johns Hopkins University School of Medicine, Lutherville, OR, ⁶Johns Hopkins University School of Medicine, Division of Hematology, Baltimore, MD
- P-324 TRANSFERRING SELECTED EMBRYOS, AFTER PGT-A DIAGNOSED AS "ABNORMAL," WHERE PATIENTS WERE REFUSED SUCH TRANSFERS AT THEIR ORIGINAL IVF CENTERS.** David H Barad, MD, MS, Sarah K Darmon, PhD, David F Albertini, PhD and Norbert Gleicher, MD, Center for Human Reproduction, New York, NY
- P-325 CLINICAL OUTCOMES OF SINGLE EMBRYO TRANSFER WITH MOSAIC EMBRYO: HIGH-GRADE MOSAIC OR LOW-GRADE MOSAIC EMBRYO, DOES IT MATTER ?** Pin-Yao Lin, MD¹, Maw-Sheng Lee, MD, PhD² and En-Hui Cheng, PhD², ¹Chung Shan Medical University, Taichung, Taiwan, Taichung, Taiwan, ²Lee Women's Hospital, Taichung, Taiwan
- P-326 CLINICAL EXPERIENCE FOLLOWING PGT ANALYSIS OF >138,000 CONSECUTIVE EMBRYOS USING A FAST-SEQS NGS-BASED ASSAY.** Dana Neitzel, MS, CGC, Kristina Robinson, PhD, Lauren Walters-Sen, PhD, Jocelyn Leahey, MS, CGC, Charlene A Alouf, PhD and Nicole Faulkner, PhD, Invitae, San Francisco, CA
- P-327 PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) AND TECHNOLOGY PLATFORM: DOES PLATFORM INFLUENCE EUPLOID CALL RATES AND/OR SUBSEQUENT PREGNANCY OUTCOMES?** Eleni A Greenwood, MD, MSc¹, Charles E McCulloch, PhD², Kaitlyn Wald, MD¹, Salustiano Ribeiro, MSc³, Phil Marsh, BS¹, Marcelle I Cedars, MD⁴ and Mitchell P Rosen, MD, HCLD², ¹University of California San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California - San Francisco, San Francisco, CA, ⁴University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA
- P-328 PREVIOUSLY VITRIFIED EMBRYOS CAN BE SUCCESSFULLY WARMED, BIOPSIED OR REBIOPSIED, AND PROVIDE RESULTS.** Nicole George, BS, Carolyn MacDonough, BS, Christopher Hibray, BS, Lynn B Davis, MD, MS and G David Ball, Ph.D., Seattle Reproductive Medicine, Seattle, WA
- P-329 ARTIFICIAL INTELLIGENCE: NON-INVASIVE DETECTION OF MORPHOLOGICAL FEATURES ASSOCIATED WITH ABNORMALITIES IN CHROMOSOMES 21 AND 16.** Matthew David VerMilyea, PhD¹, Jonathan M Hall, PhD², Don Perugini, PhD², Andrew P Murphy, BS², Tuc Ngyuen, PhD², Cecilia Rios, CG³, Alicia Picou, M.S.¹, Andrew Miller, MS¹, Andrew W Dinsmore, BS⁴, Kaylen Silverberg, MD⁵ and Michelle Perugini, PhD², ¹Ovation Fertility, Austin, TX, ²Life Whisperer, Adelaide, SA, Australia, ³Ovation Genetis, Henderson, NV, ⁴California Fertility Partners, Los Angeles, CA, ⁵Texas Fertility Center, Austin, TX
- P-330 IF ANY MOSAICISM IS IDENTIFIED IN THE TROPHECTODERM, THERE IS A 26% CHANCE OF MOSAICISM BEING PRESENT IN THE INNER CELL MASS; A CLINICAL PARADIGM, DO YOU TRANSFER MOSAIC EMBRYOS?** Paul Robert Brezina, M.D.¹, Kyle J Tobler, MD², Kamaria C Cayton Vaught, MD³, Anil K Dubey, PhD¹, Amber Cooper, MD⁴ and William G. Kearns, MD, PhD⁵, ¹Advagenix, Rockville, MD, ²Womack Army Medical



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Center, Fort Bragg, NC, ³Johns Hopkins University School of Medicine, Baltimore, MD, ⁴Vios Fertility Institute St Louis, St. Louis, MO, ⁵Johns Hopkins University School of Medicine, Advagenix, 9430 Key West Hwy, Suite 130, MD

P-331 PRE-IMPLANTATION GENETIC TESTING (PGT-A) USING FAST-SEQS NGS OF IN VIVO CONCEIVED BLASTOCYSTS RECOVERED BY UTERINE LAVAGE. Charlene A Alouf, PhD¹, Sam Najmabadi, MD², Steven T Nakajima, MD³, John E Buster, MD⁴ and Nicole Faulkner, PhD¹, ¹Invitae, San Francisco, CA, ²Center for Reproductive Health & Gynecology, Beverly Hills, CA, ³Stanford University School of Medicine, Stanford, CA, ⁴Professor Emeritus of Obstetrics and Gynecology, Brown University, Providence, RI

P-332 PGT-A (PREIMPLANTATIONAL GENETIC SCREENING) IN PATIENTS WITH PARTIAL X MONOSOMY USING OWN OOCYTES: IS A SUITABLE INDICATION? Juan Giles, M.D., Ph.D.¹, Amparo Mercader, PhD², Carmen Rubio, PhD³, Carmen Vidal, M.D., Ph.D.², Lucia Alegre, PhD⁴, Martina Trabolon, MD PhD⁵ and Marcos Meseguer, PhD⁶, ¹IVI-RMA Valencia, Valencia, Spain, ²IVIRMA Valencia, Valencia, Spain, ³Igenomix Spain, Paterna (Valencia), Spain, ⁴IVIRMA Global, Valencia, Spain, ⁵IVIRMA Murcia, Murcia, Spain, ⁶IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

P-333 EMBRYO CULTURING CONDITIONS AND THE DEVELOPMENT OF NON-INVASIVE PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY DETECTION (NI-PGT-A). Christine Robinson, Cert Med Science and Melinda Jane Jasper, PhD, PerkinElmer Health Sciences (Australia) Pty Ltd, Thebarton, SA, Australia

P-334 APPLICATION OF WHOLE GENOME NEXT GENERATION SEQUENCING (NGS) ANALYSIS OF PRODUCTS OF CONCEPTION (POC) AFTER SINGLE EMBRYO TRANSFER. Siwei Chen, MD¹, Rina Abramov, MSc², Ran Antes, PhD², Valeriy Kuznyetsov, PhD³, Svetlana Madjunkova, MD² and Clifford Lawrence Librach, MD³, ¹Create Fertility Centre, Toronto, ON, Canada, ²CRaTe fertility centre, Toronto, ON, Canada, ³CRaTe Fertility Centre, Toronto, ON, Canada

P-335 RETROSPECTIVE EVALUATION OF PGD-HLA CASES FOR DIVERSE GENETIC DISEASES. Gamze Bilgili, MSc¹, Tolga Ecemis, MD², Hasan Huseyin Kazan, MSc³ and Yaman Saglam, MD⁴, ¹Department of Physiology, Faculty of Medicine, Gazi University, Ankara, Turkey, ²Ecemis Clinics, Ankara, Turkey, ³Department of Biological Sciences, Middle East Technical University, Ankara, Turkey, ⁴Department of Medical Genetics and Biology, Maltepe University, Istanbul, Turkey

P-336 DOES PGT WITH FRESH EMBRYO TRANSFER AFFECT PERINATAL OUTCOMES?: AN ANALYSIS OF THE 2014 AND 2015 SART DATA Kristin Van Heertum, MD¹, Channing Burks, MD¹, Kerry S Flannagan, PhD², Sunni L Mumford, PhD³, Alexandra C Purdue-Smithe, PhD³, James Goldfarb, MD, MBA⁴ and Rachel S Weinerman, MD¹, ¹University Hospitals Fertility Center/Case Western Reserve University, Beachwood, OH, ²Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD, ³NICHD, Bethesda, MD, ⁴OH

P-337 ACCURACY OF CELL-FREE EMBRYONIC DNA TESTING FOR EUPLOIDY AND ANEUPLOIDY IN COMBINED SPENT EMBRYO CULTURE MEDIUM AND BLASTOCOEL FLUID SAMPLES WITH OR WITHOUT USING A CELL LYSIS STEP BEFORE AMPLIFICATION. Valeriy Kuznyetsov, PhD¹, Svetlana Madjunkova, MD², Rina Abramov, MSc², Ran Antes, PhD², Iryna Kuznyetsova, PhD¹ and Clifford Lawrence Librach, MD¹, ¹CRaTe Fertility Centre, Toronto, ON, Canada, ²CRaTe fertility centre, Toronto, ON, Canada

P-338 MOSAIC EMBRYO DIAGNOSIS CORRELATED WITH ABNORMAL 15q DUPLICATION SYNDROME IN OFFSPRING. Emily L Mounts, MS, CGC¹, Shihui Olive Zhu, MSc¹, Rebecca K Sanderson, PhD², Alison Coates, PhD¹ and John S Hesla, MD¹, ¹ORM Fertility, Portland, OR, ²CooperGenomics, Los Angeles, CA

P-339 OUTCOMES OF A SIMPLIFIED MOSAIC RANKING SYSTEM. Andrijana Jovasevic, Bachelor of Science (Molecular Genetics and Biotechnology),¹ Mark Livingstone, Genea Deputy Medical Director, MB, ChB, FRANZCOG, CREI, MM², Maria Victoria Traversa, MScMed¹, Jolene Stockton, Bachelor of Science¹, Steve Grkovic, PhD¹



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and Steven J McArthur, BSc, PLD (Harvard Business School)¹, ¹Genea, Sydney, NSW, Australia, ²Genea Sydney, Sydney, NSW, Australia

P-340 EVALUATION OF THE IMPACT OF THE PULLING AND FLICKING TROPHECTODERM BIOPSY PROCEDURES ON THE INTEGRITY OF THE BIOPSIED CELLS AND THEIR CORRELATION TO PGT-A RESULTS. Marina Benavent, MSc¹, Maria Escriba, MSc¹, Clara Miret, MSc¹, Ivette Vanrell, MSc², Nuno Costa-Borges, PhD², Gloria Calderón, PhD², Juana Crespo, MD¹ and Jose Teruel, MSc¹, ¹Equipo Juana Crespo, Valencia, Spain, ²Embryotools, Barcelona, Spain

P-341 DEVELOPMENT OF A NEXT GENERATION SEQUENCING METHOD (PGT-SR PLUS) TO DETERMINE CARRIER STATUS OF BALANCED TRANSLOCATION PATIENT EMBRYOS. Hua Jin, PhD, Hui Zheng, MA, Alysha Nicole Salbato, BS, Robert Snyder, BS, Man Li, MD, PhD and Lian Liu, MD, PacGenomics, Agoura Hills, CA

P-342 IMPACT OF TROPHECTODERM BIOPSY FOR PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) ON EARLY BETA-HCG TRENDS IN SINGLE FROZEN EMBRYO TRANSFERS (FET) RESULTING IN LIVE BIRTH. Laura Perez Soriano, BA¹, Joshua Stewart, M.D.², Steven Spandorfer, M.D.² and Zev Rosenwaks, M.D.², ¹Weill Cornell Medical College, New York, NY, ²The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

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P-343 ANTHROPOMETRIC, HORMONAL AND HEMATOLOGICAL CHARACTERISTICS OF WOMEN UNDERGOING IN VITRO FERTILIZATION. Tendai M Chiware, MBChB¹, Maria Cristina Bravo, PhD², Elizabeth A McGee, MD¹, Michael DeSarno, MS², Thomas Orfeo, PhD² and Ira Bernstein, MD¹, ¹University of Vermont Medical Center, Burlington, VT, ²University of Vermont, Burlington, VT

P-344 HUMAN MURAL GRANULOSA CELLS CULTURED IN SERUM-FREE CONDITIONS CAN BE USED TO STUDY MOLECULAR MECHANISMS OF HUMAN GRANULOSA CELL DIFFERENTIATION IN VITRO.

Sarah Baumgarten, MD, PhD¹, Nicola Winston, PhD², Michelle Fierro, BS³, Humberto Scoccia, MD³ and Carlos Stocco, PhD³, ¹Mayo Clinic, Rochester, MN, ²University of Illinois at Chicago, Chicago, IL, ³UIC, Chicago, IL

P-345 ATYPICAL VAGINAL TEMPERATURE PATTERNS MAY IDENTIFY SUBTLE, NOT YET RECOGNIZED, CAUSES OF INFERTILITY. Bradley S Hurst, M.D.¹, Al Pirrie, DPhil², R C Milnes, B.A.³ and Toby G Knowles, PhD⁴, ¹Carolinas Medical Center Atrium Health, Charlotte, NC, ²Fertility Focus Limited, Warwick, Warwickshire, United Kingdom, ³Fertility Focus Limited, Warwick, United Kingdom, ⁴Faculty of Health Sciences, University of Bristol, Bristol, Somerset, United Kingdom

P-346 IGF-1 AND IGFBP-3 SERUM CONCENTRATIONS IN PATIENTS UNDERGOING PROGRAMMED FROZEN-THAWED EMBRYO TRANSFER OF EUPLOID PGT-A EMBRYOS. Robert Setton, MD, Antonia Athanasiou, MD, Daylon James, PhD and Steven Spandorfer, M.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

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P-347 UPREGULATION OF THE LONG NON-CODING RNA TUG1 INHIBITS GRANULOSA CELL APOPTOSIS AND AUTOPHAGY IN POLYCYSTIC OVARY SYNDROME BY REGULATING ERK/MAPK PATHWAY. Ying Li, M.D¹ and Shi-ling Chen, PhD², ¹Nanfeng Hospital, Southern Medical University, Guangzhou, AP, China, ²Center for Reproductive Medicine, Department of Gynecology and Obstetrics, Nanfeng Hospital, Southern Medical University, Guangzhou, China

P-348 EFFECT OF ADRIAMYCIN, BLEOMYCIN, VINBLASTINE AND DACARBAZINE (ABVD) TREATMENT ON FEMALE MICE REPRODUCTIVE FUNCTION. Yubing LIU Sr., Ph.D¹, Xinmei LU Sr., Master², Xiaocan LEI Sr., Ph.D³ and Richeng Chian Sr., Ph.D¹, ¹Shanghai 10th People's Hospital of Tongji University, Shanghai, China, ²Zhongshan Hospital, Fudan University, Shanghai, China, ³Zunyi Medical University, Zhunyi, China



POSTER PRESENTATIONS AND ABSTRACTS

- P-349 THE IMPACT OF BOTULINUM TOXIN A (BOTA) TREATMENT ON ENDOMETRIAL BLOOD FLOW.** Youn-Jung Kang, PhD¹, Sooyeon Kim, MD², Siwon Lee, MD³, Hwang Kwon, M.D., Ph.D.⁴, Jung-Jae Ko, PhD¹, Kyung-A Lee, PhD¹ and Hwa Seon Koo, MD⁴, ¹CHA University, Seongnamsi, Korea, Republic of (South), ²CHA Bundang Medical center, Seongnamsi, Korea, Republic of (South), ³Department of obstetrics and gynecology, Mound Sinai Medical Center, Miami Beach, FL, ⁴Fertility Center, Seongnam-si, Gyeonggi-do, Korea, Republic of (South)
- P-350 WITHDRAWN**
- P-351 HORMONE SECRETION IN A MICROFLUIDIC OVARY-ON-A-CHIP PLATFORM USING ENGINEERED FOLLICLES.** Young Bin Won, M.D.¹, Inha Lee, M.D.¹, Jae Hoon Lee, M.D.¹, SiHyun Cho, M.D., Ph.D.², Hee Dong Chae, M.D., Ph.D.³, Byung Seok Lee, M.D., Ph.D.¹ and Young Sik Choi, M.D., Ph.D.¹, ¹Yonsei University College of Medicine, Severance hospital, Seoul, Korea, Republic of (South), ²Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Korea, Republic of (South), ³Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, Republic of (South)
- P-352 LOW MOLECULAR WEIGHT HYALURONAN INDUCES INFLAMMATORY GENE EXPRESSION IN OVARIAN STROMAL CELLS AND IMPAIRS GAMETE DEVELOPMENT *IN VITRO*.** Jennifer E Rowley, MS¹, Farners Amargant Riera, PhD¹, Michele T. Pritchard, PhD² and Francesca E Duncan, PhD¹, ¹Center for Reproductive Science, Northwestern University, Chicago, IL, ²Department of Pharmacology, Toxicology, & Therapeutics, Kansas University Medical Center, Kansas City, KS
- P-353 THE IMPACT OF MULTIPLE-DOSE PACLITAXEL ON FERTILITY IN MICE AND THE PROTECTIVE EFFECT OF GONADOTROPIN RELEASING HORMONE-AGONIST.** Mengge Cui, Master, Department of gynecological oncology, Tongji Hospital, Wuhan, China
- P-354 ESTABLISHMENT OF DECREASED OVARIAN RESERVE MOUSE MODEL BY CONSECUTIVE SUPEROVULATION.** Xiaowei Nie, M.D and Daorong Hou, Ph.D, Embryologist, NANJING, China
- P-355 CHARACTERIZING MEIOTIC AND MITOTIC ERRORS IN THE INNER CELL MASS AND TROPHECTODERM OF POOR QUALITY PREIMPLANTATION EMBRYOS.** Christine Briton-Jones, PhD, HCLD¹, Lucky Sekhon, MD¹, Ethan Ellis, BS², Joseph A. Lee, BA¹, Eric E Schadt, PhD², Robert P. Sebra, PhD³ and Alan B Copperman, MD², ¹Reproductive Medicine Associates of New York, New York, NY, ²Icahn School of Medicine at Mount Sinai, New York, NY, ³Sema4, a Mount Sinai Venture, Stamford, CT
- P-356 3D MODELING REVEALS CHROMOSOMES EXHIBIT NONRANDOM SEGMENTAL RADIAL ORGANIZATION AND UNIQUE HAIRPIN-LOOP CONFIGURATIONS IN SPERM NUCLEI.** Helen G Tempest, PhD¹ and Dimitrios Ioannou, PhD², ¹Florida International University, Miami, FL, ²Embryologist, Miami
- P-357 THE UBIQUINONE MITOCHONDRIA-TARGETED ANTIOXIDANT AMENDS THE EFFECT OF MATERNAL AGE ON OOCYTE SPINDLE FORMATION AND DEVELOPMENTAL COMPETENCE.** Usama I AL-Zubaidi, PhD student¹, Ozgur Cinar, Prof², Deepak Adhikari, PhD¹, Rebecca Robker, Prof³ and John Carroll, Prof¹, ¹Development and Stem Cell Program, Department of Anatomy and Developmental Biology, Melbourne, VIC, Australia, ²Department of Histology and Embryology, School of Medicine, Ankara, Turkey, ³The Robinson Research Institute, School of Medicine, Adelaide, SA, Australia
- P-358 LOSS OF MITOCHONDRIAL FUSION PROTEIN MFN2 RESULTS IN A REPRODUCTIVE AGING PHENOTYPE WITH TELOMERE SHORTENING, REDUCED FERTILITY, AND ACCELERATED DEPLETION OF FOLLICULAR POOL.** Man Zhang, M.D, Ph.D¹, Muhammed Burak Bener, B.S¹, Zongliang Jiang, Ph.D², Tianren Wang, M.D., Ph.D.³, Ecem Esencan, M.D.¹, Richard Scott III, B.S⁴ and Emre Seli, M.D.¹, ¹Yale School of Medicine, New Haven, CT, ²Louisiana State University, Baton Rouge, LA, ³Foundation for Embryonic Competence, Basking Ridge, NJ, ⁴Foundation of Embryo Competence, Basking Ridge, NJ
- P-359 THE ROLE OF AKAP13 INHIBITORS AND ACTIVATORS AND MATRIX STIFFNESS IN HIPPO PATHWAY SIGNALING FOR PRIMORDIAL FOLLICLE ACTIVATION.** Jacqueline Yano



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Maher, MD, MA, Md Soriful Islam, PhD, Szu-Chi Su, MS and James Segars, MD, Johns Hopkins University, School of Medicine, Baltimore, MD

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COLLAGEN AND HYALURONAN MATRICES UNDERGO AGE-RELATED CHANGES IN THE HUMAN OVARY. Sharron L Manuel, MD, PhD, MS¹, Elena Antonova, PhD², Jessica E Hornick, PhD³, Farners Amargant Riera, PhD⁴, Jian-Jun Wei, MD⁵, Mary Ellen Pavone, MD, MSCI¹, Michele T. Pritchard, PhD⁶ and Francesca E Duncan, PhD¹, ¹Northwestern University, Chicago, IL, ²Biological Imaging Facility Northwestern University, Evanston, IL, ³Research Associate Professor, Dept Molecular Biosciences Northwestern University, Evanston, IL, ⁴Center for Reproductive Science, Northwestern University, Chicago, IL, ⁵Northwestern University Department of Pathology, Chicago, IL, ⁶Department of Pharmacology, Toxicology, & Therapeutics, Kansas University Medical Center, Kansas City, KS

P-360 CULTURE MEDIA WITH AND WITHOUT EXPOSURE TO HUMAN PREIMPLANTATION EMBRYOS CONTAIN EXTRACELLULAR VESICLES OF COMPARABLE SIZE. Diego Marin, M.S., Emre Seli, M.D. and Richard Thomas Scott Jr., MD, IVI-RMA New Jersey, Basking Ridge, NJ

P-361 EFFECTIVENESS OF PLATELET RICH PLASMA ON PREVENTION OF CHLAMYDIA INDUCED HYDROSALPINX IN A MURINE MODEL. Sheena M Rippentrop, MD¹, Zhi Huo, PhD², Chet Schwab, MD³, Randal D Robinson, MD⁴ and Guangming Zhong, MD, PhD⁵, ¹University of Texas Health Science Center San Antonio, San Antonio, TX, ²Chinese Society for Immunology, San Antonio, TX, ³San Antonio, TX, ⁴UT Health San Antonio, San Antonio, TX, ⁵Univ of Texas Health Science Center San Antonio, San Antonio, TX

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THE EFFECT OF AUTOPHAGY AFTER MOUSE OOCYTE ACTIVATION TEST. Atsushi

Yamamoto, MD, PhD, Naoki Yoshikawa, Bachelor of Medicine, Sae Onozuka, Bachelor of Agriculture, Akiyoshi Osaka, Bachelor of Medicine, Shin Oonota, Bachelor of Medicine, Toshiyuki Iwahata, MD, PhD, Yoshitomo Kobori, MD, PhD, Kouhei Sugimoto, MD, PhD and Hiroshi Okada, MD, PhD, Dokkyo Medical University Saitama Medical Center, Koshigaya, Japan

P-363 THE REGULATION OF ENDOPLASMIC RETICULUM STRESS IMPROVES THE DEVELOPMENT OF POST-OVULATORY AGED MOUSE OOCYTES. Isao Takehara, M.D.¹, Hideki Igarashi, M.D., Ph.D.², Kyoko Takahashi, M.D.¹, Michi Nishi, M.D.¹, Koki Matsuo, M.D.¹, Jun Kawagoe, M.D., Ph.D¹ and Satoru Nagase, M.D., Ph.D¹, ¹Yamagata University, Yamagata, Japan, ²Kyono ART Clinic Takanawa, Tokyo, Japan

P-364 ABNORMAL PHOTOPERIOD EXPOSURE BEFORE PREGNANCY AFFECTS OFFSPRING LIPID METABOLISM IN SD RATS. Yanyun Ying, B.S.Med, Dan Zhang, MD, PhD, Juan Liu, Doctor and Mixue Tu, Doctor, Women's Hospital, Zhejiang University School of Medicine, Hangzhou, China

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FUNCTIONAL ACTIVITY OF MITOCHONDRIA IN AGED OOCYTES IS ASSOCIATED WITH CYTOSKELETON STABILITY IN MICE. Jae Ho Lee, PhD¹, Hye Ran Lee, Ph.D.¹, Myung Joo Kim, M.D.², Kyoung Hee Choi, Ph.D. candidate³, Ji Hyang Kim, MD⁴, Hannah Kim, MD⁵, Chanhong Park, M.D.⁵, Soo Yeon Kim, MD⁶, Mi Kyoung Koong, MD, PhD⁷, Tae Ki Yoon, M.D, Ph.D.⁸ and Sang Jin Lee, Ph.D.⁹, ¹CHA Fertility Center, Seoul, Korea, Republic of (South), ²CHA University, Seoul, Korea, Republic of (South), ³CHA Fertility Center Seooul, Seoul, Korea, Republic of (South), ⁴Fertility Center, CHA Bundang Medical Center, CHA University, Seongnam-si, Gyeonggi-do, Korea, Republic of (South), ⁵CHA Fertility Center Gangnam Medical Center, Seoul, Korea, Republic of (South), ⁶CHA Bundang Medical Center,

P-365 CYTOKINE PROFILING REVEALS A UNIQUE INFLAMMAGING SIGNATURE IN HUMAN FOLLICULAR FLUID AND THE OVARY. Jordan H Machlin, MS¹, Seth J Barishansky, MS¹, Sharron LaChelle Manuel, MD, PhD, MS¹, Jian-Jun Wei, MD², John Zhang, PhD³, Mary Ellen Pavone, MD, MSCI¹ and Francesca E Duncan, PhD¹, ¹Northwestern University, Chicago, IL, ²Northwestern University Professor of Pathology and Obstetrics and Gynecology, Chicago, IL, ³Northwestern Medicine, Chicago, IL

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CHA University, Seongnam-si, Gyeonggi-do, Korea, Republic of (South), ⁷Department of OB/GY CHA Fertility Center Seoul Station, CHA University, Seoul, Korea, Republic of (South), ⁸CHA Fertility Center Seoul Station, Obstetrics and Gynecology, Seoul, Korea, Republic of (South), ⁹Department of Animal Biotechnology & Resources, Sahmyook University, Seoul, Korea, Republic of (South)

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P-372 ROLE OF VOLTAGE DEPENDENT N AND P/Q TYPE CALCIUM CHANNEL IN MOUSE EGG FERTILIZATION. Sook Young Yoon, Ph.D.¹, Jin Hee Eum, Ph.D.¹, Miseon Park, Master² and Woo Sik Lee, M.D. Ph.D.¹, ¹Fertility Center of CHA Gangnam Medical Center, Seoul, Korea, Republic of (South), ²Affiliation not provided

P-373 THE CHANGING OF CELL MODULATION VIA EPIDERMAL GROWTH FACTOR RECEPTOR IN HUMAN DECIDUAL STROMAL CELLS. Kaori Goto, Ph.D.¹, Yasushi Kawano, M.D., Ph.D.², Yufuko Kai, M.D., Ph.D.¹, Yuichi Furukawa, M.D., Ph.D.¹, Hiroko Itoh, M.D., Ph.D.¹, Hisashi Narahara, M.D., Ph.D.² and Takafumi Utsunomiya, M.D., Ph.D.¹, ¹St.Luke Clinic, Oita, Japan, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Oita University, Yufu, Japan

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P-374 THE TP73 GENE (rs3765730) G>A POLYMORPHISM IS ASSOCIATED WITH OVARIAN RESPONSE DURING IVF/ICSI TREATMENT. Laura D Vagnini, B.Sc.¹, Claudia G Petersen, Ph.D.², Ana Lucia Mauri, B.Sc.², Adriana Renzi, Ph.D.¹, Bruna Petersen, B.Sc.², Mariana Mattila, B.Sc.³, Andreia Nicoletti, R.N.³, Felipe Dieamant, M.D.², Joao Batista A Oliveira, M.D., Ph.D.², Ricardo L R Baruffi, M.D.² and Jose G Franco Jr., M.D., Ph.D.², ¹Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ²Center for Human Reproduction Prof. Franco Jr/ Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ³Center for Human Reproduction Prof. Franco Jr, Ribeirao Preto, Brazil

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P-375 SEQUENTIAL CLINICAL MANIPULATIONS OF EMBRYOS RESULTS IN ALTERATIONS IN EXPRESSION OF GENES INVOLVED IN INNATE IMMUNITY, APOPTOSIS, AND MITOCHONDRIAL FUNCTION. Kristin Van

Heertum, MD¹, Lisa Lam, BS², Michael J Cartwright, MS², Brian Richardson, BS², Mark Cameron, PhD², Sam Mesiano, PhD² and Rachel S Weinerman, MD¹, ¹University Hospitals Fertility Center/Case Western Reserve University, Beachwood, OH, ²Affiliation not provided

THE MATRIX METALLOPROTEINASE-9 (MMP9) P.Gln279Arg POLYMORPHISM IS ASSOCIATED WITH OVARIAN RESERVE AND OVARIAN RESPONSE DURING IVF/ICSI TREATMENT Laura D Vagnini, B.Sc.¹, Claudia G Petersen, Ph.D.², Ana Lucia Mauri, B.Sc.², Adriana Renzi, Ph.D.¹, Bruna Petersen, B.Sc.², Mariana Mattila, B.Sc.³, Juliana Ricci, R.N.³, Felipe Dieamant, M.D.², Joao Batista A Oliveira, M.D., Ph.D.², Ricardo L R Baruffi, M.D.² and Jose G Franco Jr., M.D., Ph.D.², ¹Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ²Center for Human Reproduction Prof. Franco Jr/ Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ³Center for Human Reproduction Prof. Franco Jr, Ribeirao Preto, Brazil

TOWARDS PERSONALISED REPRODUCTIVE MEDICINE: SCREENING FOR GENETIC VARIANTS AND ITS INFLUENCE IN CONTROLLED OVARIAN STIMULATION. Belen Lledo, PhD, Laura Blanco, MSc, Jose A Ortiz, PhD, Ruth Morales, PhD, Jaime Guerrero, MSc, Ana Fabregat, PhD, Joaquin Llacer, PhD and Rafael Bernabeu, Ph D M D, Instituto Bernabeu, Alicante, Spain

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WHERE DOES EXTRA X IN KLINEFELTER SYNDROME COME FROM? Atsushi Tanaka, M.D., Ph.D.¹, Motoi Nagayoshi, M.D.¹, Izumi Tanaka, Ph.D.¹, Takashi Yamaguchi, M.D., Ph.D.¹, Motoharu Ohno, M.D.¹ and Seiji Watanabe, Ph.D.², ¹Saint Mother Hospital, Kitakyushu, Japan, ²Hirosaki University Graduate school of Medicine, Hirosaki, Japan

BREAKPOINT MAPPING UNCOVERING ABOUT 1.32% OF APPARENT BALANCED RECIPROCAL TRANSLOCATION (ABRT) CARRIERS EXISTING CRYPTIC COMPLEX CHROMOSOMAL STRUCTURAL VARIATIONS IN PREIMPLANTATION GENETIC TESTING (PGT) Shimin Yuan, Master and Yue-qiu Tan, Doctor, Reproductive and Genetic Hospital of Citic-Xiangya, Changsha, China



POSTER PRESENTATIONS AND ABSTRACTS

P-380 SINGLE CELL GENE EXPRESSION OF HUMAN PUBERTAL TESTIS DEVELOPMENT. Jingtao Guo, PhD¹, Xichen Nie, BS², Douglas T Carrell, PhD³, James Hotaling, MD³ and Bradley R Cairns, PhD⁴, ¹University of Utah School of Medicine, Andrology and IVF Laboratories, Salt Lake City, UT, ²Huntsman Cancer Institute, Salt Lake City, UT, ³University of Utah School of Medicine Andrology and IVF Laboratories, Salt Lake City, UT, ⁴Howard Hughes Medical Institute, Department of Oncological Sciences and Huntsman Cancer Institute, University of Utah School of Medicine, Salt Lake City, UT

P-381 PRE-SURROGACY OBSTETRICAL RISK ASSESSMENT FOR POTENTIAL GESTATIONAL CARRIERS. Georges Sylvestre-Margolis, MD CM¹, Susanna Park, MD² and Said Daneshmand, MD², ¹Elmhurst Hospital Medical Center / Mount Sinai School of Medicine, New York, NY, ²San Diego Fertility Center, San Diego, CA

P-382 LUTEAL PHASE-DERIVED OOCYTE-CUMULUS COMPLEXES: GENE EXPRESSION AND MITOCHONDRIAL DNA COPY NUMBER. Bella Martazanova, PhD¹, Nona Mishieva, PhD¹, Anna Korolkova, MD¹, Khava Bogatyreva, PhD¹, Maria Veykova, PhD², Anastasia Kirillova, PhD², Olga Burmenskaya, PhD³ and Aydar Abubakirov, PhD¹, ¹Reproductive endocrinology, Moscow, Russian Federation, ²Embriologist, Moscow, Russian Federation, ³Genetic, biology, Moscow, Russian Federation

P-383 PREVALENCE OF GENETIC DISEASE CARRIERS AMONG PATIENTS SEEKING FERTILITY TREATMENT. Jennifer C Luque, MS¹, Catherine Terhaar, MS¹, Emad Bahrami-Samani, PhD², Philip James Uren, PhD¹, Ramsey Johnson, MBA¹ and Lisa D McDaniel, PhD, FACMG¹, ¹Progenity, Ann Arbor, MI, ²Progenity, San Diego, CA

P-384 A "TANDEM-REFLEX" STRATEGY MINIMIZES RESULTS DELIVERY TIME FOR COUPLES UNDERGOING CARRIER SCREENING. Aishwarya Arjunan, MS, MPH, Kristjan Eerik Kaseniit, MEng, Brandon Lee, BA, Jeff Wootton, PhD, Kenny Wong, MS and Katie Johansen Taber, PhD, Myriad Women's Health, South San Francisco, CA

P-385 CARRIER SCREENING IN 2019: IS SCREENING

FOR MORE GENES THE NEW STANDARD OF CARE? Dana Neitzel, MS, CGC, Jocelyn Leahey, MS, CGC, Susan Glass, MS and Nicole Faulkner, PhD, Invitae, San Francisco, CA

P-386 THE PROLONGED DISEASE STATE OF INFERTILITY IS ASSOCIATED WITH BLASTOCYST IMPRINTED EPIGENETIC DYSREGULATION. Michelle M Denomme Tignaneli, PhD, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

P-387 ARE THERE ANY SIMILARITIES IN GENE EXPRESSION BETWEEN EUPLOID EMBRYOS AND ANEUPLOID EMBRYOS COMPATIBLE WITH LIFE? Allison C Kranyak, B.S.¹, Alyssa Barré, B.S.¹, Deepti M Athavale, B.S.¹, Arnab Lal, na¹, Jonathan L Blalock, BS¹, Shawn Zimmerman, PhD, HCLD², T. Arthur Chang, PhD, HCLD, ELD³, Randal D Robinson, MD⁴, J. David Wininger, PhD, HCLD⁵, William E. Roudebush, PhD¹ and Renee J. Chosed, PhD¹, ¹University of South Carolina School of Medicine Greenville, Greenville, SC, ²Vios Fertility Institute, Swansea, IL, ³University of Texas Health Science Center, San Antonio, TX, ⁴UT Health San Antonio, San Antonio, TX, ⁵Atlantic Reproductive Medicine Specialists, Raleigh, NC

P-388 DEFINING A CLINICAL VALIDITY FRAMEWORK FOR PHARMACOGENOMIC BIOMARKERS OF IVF TREATMENT RESPONSE AND OUTCOMES. David-Emlyn Parfitt, PhD, Caterina Clementi, PhD, Karen Hunter Cohn, PhD, Lili Mohebbi, MS, Frank S Augello, MS and Piraye Yurttas Beim, PhD, Celmatix, NEW YORK, NY

P-389 ZP1 PATHOGENIC VARIANTS CAUSE 'GENUINE' EMPTY FOLLICLE SYNDROME: EVIDENCE FOR THE EXISTENCE OF AN INTACT OOCYTE AND A ZONA PELLUCIDA IN FOLLICLES UP TO EARLY ANTRAL STAGE. Can Dai, Ph.D.¹, Yongzhe Chen, Ph.D.² and Ge Lin, M.D., Ph.D.³, ¹Reproductive and Genetic Hospital of CITIC-Xiangya, Changsha, China, ²Central South University, Changsha, China, ³Reproductive and Genetic hospital of CITIC-Xiangya, Changsha, China

P-390 ANALYSIS OF ACCESSIBLE CHROMATIN LANDSCAPE IN THE INNER CELL MASS AND TROPHECTODERM OF HUMAN BLASTOCYSTS USING ATAC-SEQ. Min Yang, PHD¹, Xin Tao, Ph.D², Tianhua Zhao, MD³, Richard



POSTER PRESENTATIONS AND ABSTRACTS

Thomas Scott Jr., MD⁴ and Emre Seli, M.D.⁴,
¹FEC, Basking Ridge, NJ, ²Foundation for
Embryonic Competence, Basking Ridge,
NJ, ³IVIRMA, Basking Ridge, NJ, ⁴IVI-RMA
New Jersey, Basking Ridge, NJ

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**A STEP TOWARD GENE REMODELING OF
MAMMALIAN SPERMATOZOA BY CRISPR-
Cas9.** June Wang, B.A., Alessandra Parrella,
M.Sc., Philip Xie, B.S., Zev Rosenwaks, M.D.
and Gianpiero D. Palermo, M.D., Ph.D., The
Ronald O. Perelman and Claudia Cohen
Center for Reproductive Medicine, Weill
Cornell Medicine, New York, NY

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**THE EXTRACELLULAR CUMULUS MATRIX
DOUBLES THE SPERM ZONA-ADHESION IN
NORMOZOOSPERMIC PATIENTS.** Rumiana
Ganeva, MSc, Dimitar Parvanov, PhD,
Kristina Nikolova, MSc, Magdalena Vasileva,
MSc, Ferihan Shaban, MSc and Georgi
Stamenov Stamenov, MD/PhD, Nadezhda
Women's Health Hospital, Sofia, Bulgaria

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**VARICOCELE DIMINISHES SPERM
CAPACITATION FUNCTION AND THE
CHANCES OF GENERATING A PREGNANCY.**
Philip Xie, B.S.¹, Alessandra Parrella,
M.Sc.¹, Alexander J Travis, VMD, PhD², Zev
Rosenwaks, M.D.¹, James A. Kashanian, MD³
and Gianpiero D. Palermo, M.D., Ph.D.¹,
¹The Ronald O. Perelman and Claudia
Cohen Center for Reproductive Medicine,
Weill Cornell Medicine, New York, NY,
²Cornell University, Ithaca, NY, ³Weill Cornell
Medicine, Department of Urology, New
York, NY

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**IMPACTS OF TEST (TES AND TRIS) YOLK
BUFFER AND COOLING ON THE ABILITY OF
HUMAN SPERM TO CAPACITATE.** G Charles
Ostermeier, PhD¹, Cristina Cardona,
PhD¹, Melissa A Moody, MS¹, Alana J
Simpson, BS¹, Romeo Mendoza, MT¹ and
Alexander J Travis, VMD, PhD², ¹Androvia
LifeSciences, Mountainside, NJ, ²Cornell
University, Ithaca, NY

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**RELATIONSHIP AMONG INTRACELLULAR
SUPEROXIDE DISMUTASE ACTIVITY,
GLUTATHIONE PEROXIDASE ACTIVITY,
MOTILITY AND MORPHOLOGY IN HUMAN
SEMEN.** Luchezar Vasilev Jelezarski,
PhD, Dimitar Parvanov, PhD, Vilyana
Georgieva, MSc, Rumiana Ganeva, MSc
and Georgi Stamenov Stamenov, MD/
PhD, Nadezhda Women's Health Hospital,
Sofia, Bulgaria

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**AN OVARIAN COMPONENT INVOLVED IN
SUBFERTILITY OF THE NSMF KO MOUSE.** Erica
Louden, M.D. Ph.D, Lynn Chorich, B.S, M.S.
and Lawrence Layman, M.D., Augusta
University, Augusta, GA

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**PRO-APOPTOTIC GENE EXPRESSION IN
BLASTOCOEL FLUID FROM EUPLOID DAY-5
EMBRYOS IS ASSOCIATED WITH NEGATIVE
PREGNANCY OUTCOMES.** Deepti M Athavale,
B.S.¹, Alyssa Barré, B.S.¹, Allison C Kranyak,
B.S.¹, Arnav Lal, na¹, Jonathan L Blalock, BS¹,
Shawn Zimmerman, PhD, HCLD², T. Arthur
Chang, PhD, HCLD, ELD³, Randal D Robinson,
MD⁴, J. David Wininger, PhD, HCLD⁵, William
E. Roudebush, PhD¹ and Renee J. Chosed,
PhD¹, ¹University of South Carolina School of
Medicine Greenville, Greenville, SC, ²Vios
Fertility Institute, Swansea, IL, ³University of
Texas Health Science Center, San Antonio,
TX, ⁴UT Health San Antonio, San Antonio, TX,
⁵Atlantic Reproductive Medicine Specialists,
Raleigh, NC

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**FRAGILE X CARRIER SCREENING
ACCOMPANIED BY GENETIC CONSULTATION
HAS CLINICAL UTILITY IN POPULATIONS
BEYOND THOSE RECOMMENDED BY
GUIDELINES.** Katie Johansen Taber, PhD¹,
Jeraldine Lim-Harashima, MS, CGC², Harris
Naemi, BS³ and Jim Goldberg, MD¹, ¹Myriad
Women's Health, South San Francisco,
CA, ²Myriad Genetics, Salt Lake City, CA,
³Myriad Genetics, Salt Lake City, UT

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**THE EXPRESSION OF HUMAN ENDOGENOUS
RETROVIRUS SYNCYTIN IN HUMAN
ANEUPLOIDY ARE INSUFFICIENT COMPARED
TO EUPLOIDY.** Danxia Luo, MD¹, Fang
Wang, PhD¹, Isaac J. Chamani, B.A.²,
David H. McCulloh, Ph.D.³, Caroline
McCaffrey, Ph.D.⁴ and David L. Keefe,
M.D.¹, ¹New York University School of
Medicine, Department of Obstetrics and
Gynecology, New York, NY, ²New York
University School of Medicine, New York,
NY, ³NYU Langone Health, New York, NY,
⁴New York Langone Health, NYU Fertility
Center, New York, NY



POSTER PRESENTATIONS AND ABSTRACTS

P-400 VARIATION IN THE PERCENTAGES OF Y-CHROMOSOME BEARING SPERM IN EJACULATES. Seth Levrant, MD¹, Jared Graham, BS², Morry B Fiddler, Ph.D.², Saranya Tharmakulasingam, MD³ and Rajasingam Jeyendran, Ph.D, HCLD³, ¹Partners in Reproductive Health, Tinley Park, IL, ²Insight Medical Genetics, Chicago, IL, ³Androlab Inc, Chicago, IL

P-401 DURAMYCIN DISRUPTS SPERM MOTILITY AND IN VITRO FERTILIZATION (IVF). Devang Sharma, MD, Claudia M Rival, PhD, Sarah C Krzastek, MD, Jeffrey J Lysiak, PhD, Ryan P Smith, MD and NICHD's Reproductive Medicine Network, University of Virginia, Charlottesville, VA

P-402 THE EFFICACY OF OXIDATION REDUCTION POTENTIAL(ORP) IN MALE INFERTILITY AND ITS relationship with seminal LEUKOCYTE CONCENTRATION. Shinnosuke Kuroda, M.D, Teppei Takeshima, M.D and Yasushi Yumura, Ph.D, Yokohama City University, Medical Center, Yokohama, Japan

BASIC REPRODUCTIVE RESEARCH

P-801 WITHDRAWN

P-802 ANDROGENS NEGATIVELY AFFECT CILIARY FUNCTION AND ALTER GENE EXPRESSION IN THE HUMAN FALLOPIAN TUBE. Tia Jackson-Bey, MD MPH¹, Angela Russo, Ph.D.², Alexandria N. Young, B.S., B.A.² and Joanna E. Burdette, Ph.D.², ¹University of Illinois at Chicago, College of Medicine, Chicago, IL, ²University of Illinois at Chicago, College of Pharmacy, Chicago, IL

P-803 MIR-297 REPRESSES THE EXPRESSION OF PROGESTERONE RECEPTOR AND DECIDUALIZATION IN EUTOPIC ENDOMETRIUM IN INFERTILE WOMEN WITH ENDOMETRIOSIS. Wei Huang, Ph.D, M.D. and Tingting Liu, M.D., West China Second University Hospital of Sichuan University, Chengdu, China

P-804 INHIBITION OF BOTH DNA METHYLTRANSFERASES AND HEDGEHOG SIGNALING SUPPRESSES THE PHENOTYPE OF HUMAN UTERINE LEIOMYOSARCOMA CELLS. Natalia Garcia, MSc¹, Ayman Al-Hendy, MD

PhD¹, Leonardo Tomiatti da Costa, MSc², Kátia Candido Carvalho, PhD² and Qiwei Yang, PhD¹, ¹University of Illinois at Chicago, Chicago, IL, ²University of Sao Paulo, Sao Paulo, Brazil

CLINICAL ART

P-805 WHAT IS FERTILITY FRAUD, WHAT ARE COURTS AND LEGISLATURES DOING ABOUT IT, AND HOW MIGHT IT IMPACT REPRODUCTIVE MEDICINE? Jody L Madeira, Ph.D., J.D.¹ and Susan Crockin, J.D.², ¹Professor of Law, Bloomington, IN, ²Senior Scholar, Adjunct Professor of Law, Washington, DC

P-806 WITHDRAWN

P-807 OOCYTE DISPOSITION PREFERENCES: PLANNING FOR THE FUTURE. Anne Hutchinson, M.D., Rafael Confino, BS, John Zhang, PhD, Angela K. Lawson, Ph.D. and Mary Ellen Pavone, MD, MSCI, Northwestern University, Chicago, IL

P-808 ASSOCIATION OF BMI WITH POST-OPERATIVE MORBIDITY IN PATIENTS UNDERGOING MYOMECTOMY: AN ANALYSIS OF THE AMERICAN COLLEGE OF SURGEONS' NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (ACS NSQIP). Lauren M Kendall Rauchfuss, MD¹, Tana Kim, MD², MacKenzie P Purdy, MD², Elizabeth B Habermann, PhD³, Katherine A Bews, BA³, Amy E Glasgow, MHA³ and Zaraq Khan, MD¹, ¹Mayo Clinic, Rochester, MN, ²Division of Reproductive Endocrinology and Infertility, Rochester, MN, ³Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery Surgical Outcomes Program, Mayo Clinic, Rochester, MD, Rochester, MN

P-809 DETECTION OF THE FERTILE WINDOW USING A WEARABLE MEDICAL DEVICE AND THE CALENDAR METHOD: A COMPARATIVE STUDY. Evangelia Mouriki, MSc¹, Aljosa Bilic, MSc¹, Brianna M Goodale, PhD¹, Gyorgyi Hamvas, MSc¹, Catrin Argyle, BSc, MSc¹, Mohamed Shilaih, PhD¹ and Brigitte Leeners, Prof. Dr.², ¹Ava AG, Zurich, Switzerland, ²University Hospital Zurich, Zurich, Switzerland



POSTER PRESENTATIONS AND ABSTRACTS

CRYO TANK ISSUES

- P-810 CRYO TANK QUALITY CONTROL: HOW TO DETECT A TANK THAT IS 'FAILING'.** James R Graham, MS ELD¹, Cristina L Applegate, MS², Seamus R Graham, HSDG³ and Michael J Tucker, PhD², ¹SG Fertility, Rockville, MD, ²Shady Grove Fertility, Rockville, MD, ³Student, North Potomac, MD
- P-811 THE ANATOMY OF LIQUID NITROGEN (LN2) CRYO DEWAR TANK FAILURES.** Mitchel C. Schiewe, MS, PhD¹, Shane Zozula, B.S., T.S. (ABB)¹, Erica J Behnke, PhD², Jason Cowles, BA³, Rob Manchise, BS³ and John B. Whitney, BS¹, ¹Ovation Fertility, Newport Beach, CA, ²Ovation Fertility, Cincinnati, OH, ³Trust Gnosis, Brea, CA
- P-812 USEFULNESS OF REMOTE, CONTINUOUS WEIGHT DETERMINATION FOR THE ROUTINE QUALITY MANAGEMENT OF CRYO DEWAR TANKS.** Mitchel C. Schiewe, MS, PhD¹, Shane Zozula, B.S., T.S. (ABB)¹, Tannia Ochoa, BA¹, Jason Cowles, BA¹, Rob Manchise, BS² and John B. Whitney, BS¹, ¹Ovation Fertility, Newport Beach, CA, ²Trust Gnosis, Brea, CA



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ART LAB - EMBRYO CULTURE

- P-403 INFLUENCE OF COMMERCIAL EMBRYO CULTURE MEDIA ON IN VITRO DEVELOPMENT, PREGNANCY, AND PERINATAL OUTCOMES AFTER IVF: A SINGLE-CENTER RCT.** Masao Murakami, PhD, Keiko Tanaka, MS, Hitomi Otsubo, BS, Shigetoshi Mizumoto, Ph.D., Yozo Nagao, MS and Takeshi Kuramoto, M.D., Ph.D., Kuramoto Women's Clinic, Fukuoka, Japan
- P-404 EXPLORING NEW COMPLEX PROTEIN SUPPLEMENT SOLUTIONS FOR CLINICAL EMBRYO CULTURE MEDIA.** John Becker, BS¹, Benjamin B Goheen, BS¹, Deirdre M Logsdon, MS¹, Sandeep K Rajput, PhD¹, Courtney K Grimm, MS¹, William B Schoolcraft, MD¹ and Rebecca L. Krisher, PhD², ¹Colorado Center for Reproductive Medicine, Lone Tree, CO, ²CCRM, Lone Tree, CO
- P-405 COMPARISON OF HUMIDIFIED VERSUS NON-HUMIDIFIED INCUBATION WITH SEQUENTIAL CULTURE MEDIA IN A TIME-LAPSE INCUBATOR USING SIBLING OOCYTE SPLITS.** Rebecca Holmes, PhD¹, Jaime Weinberg, BS², Laurie Kalaghan, BS², Brett Goode, BS², William B Schoolcraft, MD³ and Jason E Swain, PhD⁴, ¹CCRM Boston, Chestnut Hill, MA, ²CCRM Boston, Boston, MA, ³Colorado Center for Reproductive Medicine, Lone Tree, CO, ⁴CCRM Fertility Network, Lone Tree, CO
- P-406 EFFECT OF ULTRA-LOW OXYGEN (2%) ENVIRONMENT ON MOUSE EMBRYO MORPHOKINETICS AND BLASTOCYST DEVELOPMENT.** Khalied Kaskar, MS¹, Richard Cochran, PhD¹, Daneeka P Hamilton, MPH², Amanda David, BS², Ralf Henkel, PhD³, William Gibbons, MD¹, Chellakkan Selvanesan Blessen, PhD¹ and Kaskar group, ¹Baylor College of Medicine, Houston, TX, ²Texas Childrens' Hospital, Houston, TX, ³University of the Western Cape, Bellville, South Africa
- P-407 DOES SUPPLEMENTATION OF MEDIA WITH INSULIN OR INSULIN-LIKE GROWTH FACTOR 1 (IGF-1) ENHANCE MORPHOKINETICS OF MOUSE EMBRYO DEVELOPMENT?** Khalied

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Kaskar, MS¹, Richard Cochran, PhD¹, Daneeka P Hamilton, MPH², Amanda David, BS², Ralf Henkel, PhD³, William Gibbons, MD¹ and Chellakkan Selvanesan Blesson, PhD¹, ¹Baylor College of Medicine, Houston, TX, ²Texas Childrens' Hospital, Houston, TX, ³University of the Western Cape, Bellville, South Africa

- P-408 INCREASING THE EFFICACY OF MOUSE EMBRYO ASSAYS FOR QUALITY CONTROL IN THE IVF LABORATORY.** Khalied Kaskar, MS¹, Richard Cochran, PhD¹, Daneeka P Hamilton, MPH², Amanda David, BS², Ralf Henkel, PhD³, William Gibbons, MD¹ and Chellakkan Selvanesan Blesson, PhD¹, ¹Baylor College of Medicine, Houston, TX, ²Texas Childrens' Hospital, Houston, TX, ³University of the Western Cape, Bellville, South Africa

ART LAB - EMBRYO SELECTION

- P-409 DEEP CONVOLUTIONAL NEURAL NETWORKS (CNN) FOR ASSESSMENT AND SELECTION OF NORMALLY FERTILIZED HUMAN EMBRYOS.** Irene Dimitriadis, MD¹, Charles L Bormann, PhD¹, Manoj Kumar Kanakasabapathy, MS², Prudhvi Thirumalaraju, BS², Raghav Gupta, BTech², Rohan Pooniwala, BTech¹, Irene Souter, MD³, Sarah T Rice, MS³, Pragati Bhowmick, MD³ and Hadi Shafiee, PhD², ¹Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ³MGH Fertility Center and Harvard Medical School, Boston, MA

- P-410 DEEP LEARNING CAN IMPROVE DAY 5 EMBRYO SCORING AND DECISION MAKING IN AN EMBRYOLOGY LABORATORY.** Eduardo Hariton, MD, MBA¹, Prudhvi Thirumalaraju, BS², Manoj Kumar Kanakasabapathy, MS², Raghav Gupta, BTech², Rohan Pooniwala, BTech², Irene Souter, MD¹, Irene Dimitriadis, MD¹, Christine Veiga, BS¹, Pietro Bortoletto, MD¹, Charles L Bormann, PhD¹ and Hadi Shafiee, PhD², ¹Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, Harvard Medical School, Boston, MA

- P-411 PREDICTING BLASTOCYST FORMATION OF DAY 3 EMBRYOS USING A CONVOLUTIONAL NEURAL NETWORK (CNN): A MACHINE**

LEARNING APPROACH. Pietro Bortoletto, MD¹, Manoj Kumar Kanakasabapathy, MS², Prudhvi Thirumalaraju, BS³, Raghav Gupta, BTech², Rohan Pooniwala, BTech⁴, Irene Souter, MD⁴, Irene Dimitriadis, MD⁵, Kristy Dickinson, BS, TS¹, Eduardo Hariton, MD, MBA¹, Charles L Bormann, PhD⁵ and Hadi Shafiee, PhD³, ¹Division of Reproductive Endocrinology and Infertility, Boston, MA, ²Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ³Division of Engineering in Medicine, Cambridge, MA, ⁴Massachusetts General Hospital, Harvard Medical School, Boston, MA, ⁵Massachusetts General Hospital, Boston, MA

- P-412 THE APPLICATION OF MACHINE LEARNING METHODS TO EVALUATE PREDICTORS OF LIVE BIRTH IN PROGRAMMED THAW CYCLES.** Denis Vaughan, MD, MRCPI¹, Weiwei Pan, PhD², Yaniv Yacoby, BA³, Emily A Seidler, MD¹, Angela Q Leung, MD⁴, Finale Doshi-Velez, PhD² and Denny Sakkas, PhD⁴, ¹Beth Israel Deaconess Medical Center, Boston, MA, ²Harvard Institute for Applied Computer Science, Cambridge, MA, ³Harvard University, Cambridge, MA, ⁴Boston IVF, Waltham, MA

- P-413 DEEP LEARNING FOR AUTOMATIC DETERMINATION OF BLASTOCYST EMBRYO DEVELOPMENT STAGE.** Alejandro Chavez-Badiola, MD¹, Gerardo Mendizabal-Ruiz, PhD², Vladimir Ocegueda-Hernandez, MSc², Adolfo Flores-Saiffe Farias, MSc, PhD³ and Andrew J Drakeley, MD FRCOG⁴, ¹Darwin Technologies LTD, Maghull, United Kingdom, ²Departamento de Ciencias Computacionales, Universidad de Guadalajara, Guadalajara, JA, Mexico, ³New Hope Fertility Center, Guadalajara, JA, Mexico, ⁴Hewitt Centre for Reproductive Medicine, Liverpool Women's Hospital, Liverpool, United Kingdom

- P-414 ARTIFICIAL NEURAL-NETWORK ANALYSIS COMBINED WITH TIME-LAPSE IMAGING PREDICTS EMBRYO ABILITY TO DEVELOP TO THE BLASTOCYST STAGE.** Giovanni Coticchio, Ph.D.¹, Raffaella Sciajino, B.Sc.¹, Giulia Fiorentino, B.Sc.², Federica Cavalera, Ph.D.², Giovanna Nicora, B.Sc.³, Riccardo Bellazzi, Ph.D.³, Andrea Borini, M.D.¹, Silvia Gargana, Ph.D.² and Maurizio Zuccotti, Ph.D.², ¹9.Baby



POSTER PRESENTATIONS AND ABSTRACTS

- Family and Fertility Center, Bologna, Italy,
²University of Pavia, Department of Biology and Biotechnology 'Lazzaro Spallanzani', Pavia, Italy, ³University of Pavia, Department of Electrical- Computer and Biomedical Engineering, Pavia, Italy

- P-415 A MASSIVE EMBRYO MORPHOKINETICS COMPARISON SYSTEM IS ABLE TO SELECT EMBRYOS WITH HIGH IMPLANTATION POTENTIAL ENHANCING SINGLE EMBRYO TRANSFER POLICY.** Lucia Alegre, PhD¹, Raquel Del Gallego, PhD¹, Lorena Bori Arnal, PhD¹, Manuel Muñoz, MD², Antonio Pellicer, M.D., Ph.D.³ and Marcos Meseguer, PhD⁴, ¹IVIRMA Global, Valencia, Spain, ²IVIRMA ALICANTE, Alicante, Spain, ³IVI-RMA Valencia, Valencia, Spain, ⁴IVIRMA Global, Valencia, Spain, Tel Aviv, Israel

- P-418 DEEP LEARNING-ENABLED PREDICTION OF FERTILIZATION BASED ON OOCYTE MORPHOLOGICAL QUALITY.** Prudhvi Thirumalaraju, BS¹, Charles L Bormann, PhD², Manoj Kumar Kanakasabapathy, MS¹, Hemanth Kandula, BS¹ and Hadi Shafiee, PhD¹, ¹Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²Massachusetts General Hospital, Harvard Medical School, Boston, MA

- P-419 USE OF A SPECIFIC GRAVITY DEVICE TO PREDICT BLASTOCYST SEX.** Alex L Schaubhut, B.S.¹, Cara Wessels, PhD¹, Samuel D Prien, PhD² and Lindsay L Penrose, PhD², ¹Texas Tech University, Lubbock, TX, ²Texas Tech University Health Sciences Center, Lubbock, TX

- P-420 A CLINICAL MODEL PREDICTING SUPERNUMERARY EMBRYOS IN WOMEN UNDERGOING FREEZE-ALL CYCLES UTILIZING SART CORS DATA.** Yetunde O. Ibrahim, MD¹, Greg Stoddard, MS² and Erica Johnstone, MD³, ¹Utah Center for Reproductive Medicine, Salt Lake City, UT, ²Affiliation not provided, ³University of Utah, Salt Lake City, UT

- P-421 BLASTOCYST AND EMBRYO SCREENING SELECTION TOOL (BESST): AN ULTRAFAST NON-INVASIVE EMBRYO SELECTION TEST FOR USE IMMEDIATELY PRIOR TO EMBRYO TRANSFER.** Raminta Zmuidinaite, MSc¹, Ricardo J Pais, PhD¹, Ray K Iles, PhD², Fady I Sharara, M.D.³, Christian Jardine, BEng⁴ and Stephen A Butler, PhD⁵, ¹MAP Sciences Ltd, Bedford, United Kingdom, ²MAPSciences Ltd, Bedford, United Kingdom, ³Virginia Center for Reproductive Medicine, Reston, VA, ⁴Trainee software engineer, Bedford, United Kingdom, ⁵MAP Sciences, Bedford, United Kingdom

- P-422 QUALITY EVALUATION OF DIRECT CLEAVAGE EMBRYOS AT THE FIRST DIVISION USING A COMBINED EARLY CLEAVAGE WITH AN EMBRYO MORPHOLOGICAL GRADING METHOD.** Yumi Nagata, M.D., Ph.D.¹, Hiroyuki Tomari, Ph.D.¹, Saki Gondo, M.D.², Kensuke Saito, M.D.² and Kou Honjo, M.D.², ¹IVF Nagata Clinic, Fukuoka, Japan, ²Affiliation not provided

ART LAB - EMBRYOS

- P-416 EFFECTS OF MEIOTIC SPINDLE IMAGING IN HUMAN OOCYTES FOLLOWING PIEZO-ICSI ON OOCYTE FERTILIZATION AND EMBRYO DEVELOPMENT.** Kenichiro Hiraoka, Ph.D.¹, Takayuki Tatsumi, M.D., Ph. D.², Makiko Tajima, M.D.³, Tomonori Ishikawa, M.D.⁴ and Kiyotaka Kawai, M.D.Ph.D⁵, ¹Kameda IVF Clinic Makuhari, Chiba, Japan, ²Comprehensive Reproductive Medicine, Tokyo Medical and Dental University, Tokyo, Japan, ³Kameda IVF clinic Makuhari, Department of Reproductive Medicine, Tokyo, Japan, ⁴Tokyo Medical and Dental University, Tokyo, Japan, ⁵Kameda Medical Center, Kamogawa, Japan

- P-417 EFFECT OF DIFFERENT 6-DIMETHYLAMINOPURINE (6-DMAP) TREATMENTS ON REVERSIBLE ARRESTING OF MONO- AND TRIPRONUCLEAR EMBRYOS AT THE PRONUCLEAR STAGE.** Noelia Grau, PhD¹, Ana González-Picazo, MSc², Nuria Soler, MSc³, María José Escribá, PhD⁴, Xavier Vendrell, PhD⁵ and Tamara Viloria, PhD⁶, ¹IVIRMA-Valencia, Valencia, Spain, ²IVI-Foundation, Instituto de Investigación Sanitaria La Fe, Valencia, Spain, ³Universidad de Valencia, Valencia, Spain, ⁴IVIRMA Valencia, Valencia, Spain, ⁵Sistemas Genómicos, Paterna, Spain, ⁶IVIRMA Global, Valencia, Spain

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POSTER PRESENTATIONS AND ABSTRACTS

ART LAB - ICSI

P-423 IDENTIFICATION OF THE INDICATORS FOR RESCUE ICSI: THE EFFICACY OF TIME-LAPSE IMAGING FOR THE SIGNS OF FERTILIZATION IN IVF. Rie Matsunaga, M.A., Hiromi Morita, M.A., Rui Hasegawa, B.A., Kana Isobe, B.A., Megumi Miura, M.A., Yuki Kobayashi, B.A., Minako Kamihata, B.A., Shinichi Watanabe, DVM, Tomoko Maeda, Ph.D., Hiroshi Makino, Ph.D., Masanori Ochi, Ph.D. and Toshitaka Horiuchi, Ph.D., OCHI YUME CLINIC NAGOYA, Nagoya, Japan

P-424 SPERM DNA FRAGMENTATION REDUCES EMBRYO DEVELOPMENT AND ONGOING PREGNANCY IN COUPLES WITH NON-MALE FACTOR INFERTILITY UNDERGOING INTRACYTOPLASMIC SPERM INJECTION CYCLES. Matheus de Castro Azevedo, BSc¹, Bianca Ferrarini Zanetti, PhD², Daniela Paes de Almeida Ferreira Braga, PhD³, Amanda Souza Setti, MSc³, Assumpto Iaconelli Jr., MD³ and Edson Borges Jr., PhD³, ¹Fertility Medical Group, Sao Paulo, Brazil, ²Sapientiae Institute, Sao Paulo, Brazil, ³Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil

P-425 EFFECT OF SPERM SELECTION TECHNIQUES ON HUMAN NEONATAL GENDER RATIO IN PATIENTS UNDERGOING ICSI. Khaled Mohamed Elqusi, BSc¹, Eman Mohamed Hassanen, BSc¹, Hanaa Ahmed Alkhader, MBBCh², Hosam Zaki, MBBCh, MSc, FRCOG¹, Ralf Henkel, PhD³ and Ashok Agarwal, PhD⁴, ¹Ganin Fertility Center, Cairo, Egypt, ²Ganin IVF lab Director, Cairo, Egypt, ³University of the Western Cape, Bellville, South Africa, ⁴Cleveland Clinic, CLEVELAND, OH

P-426 CERTAIN MORPHOLOGICAL CHARACTERISTICS OF THE SPERMATOZOOM USED FOR INTRACYTOPLASMIC SPERM INJECTION (ICSI) ARE ASSOCIATED WITH A HIGHER LIKELIHOOD OF DEVELOPMENTAL ARREST AND EMBRYO DEGENERATION. Magdalena Vasileva, MSc, Dimitar Parvanov, PhD, Kristina Nikolova, MSc, Rumiana Ganeva, MSc and Georgi Stamenov Stamenov, MD/PhD, Nadezhda Women's Health Hospital, Sofia, Bulgaria

P-427 DAY 2 ICSI DOES RESULT IN GOOD QUALITY BLASTOCYST DEVELOPMENT AND PREGNANCY. Rebecca Kile, MS¹, Haleigh Silz, MS¹, Sue

McCormick, BS¹, William B Schoolcraft, MD¹ and Rebecca L. Krisner, PhD², ¹Colorado Center for Reproductive Medicine, Lone Tree, CO, ²CCRM, Lone Tree, CO

P-428 DO DIFFERENT SPERM SELECTION TECHNIQUES HAVE AN IMPACT ON EMBRYOLOGICAL FINDINGS AND CLINICAL OUTCOMES OF ABNORMAL SPERM DNA FRAGMENTATION PATIENTS COMPARED TO NORMAL ONES; A RETROSPECTIVE COHORT STUDY. Manar Mohamed Hozyen, MSc, Eman Mohamed Hassanen, BSc, Yasmine sayed Azzouz, BSc, Hanaa Ahmed Alkhader, MBBCh and Hosam Zaki, MBBCh, Msc, FRCOG, Ganin Fertility Center, Cairo, Egypt

P-429 IDENTIFICATION OF THE OPTIMAL PUNCTURE POSITION IN PIEZO-ICSI USING IMAGE ANALYSIS: A PILOT STUDY. Tomohiro Maekawa, M.MS.¹, Shimpei Mizuta, M.HS.², Yuya Kinishi, B.E.³, Chie Takahashi, MBBS¹, Hidehiko Matsubayashi, MD², Kotaro Kitaya, MD², Takumi Takeuchi, MD, PhD¹, Yutaka Hata, Ph.D.³ and Tomomoto Ishikawa, MD², ¹Reproduction Clinic Tokyo, Tokyo, Japan, ²Reproduction Clinic Osaka, Osaka, Japan, ³Graduate School of Simulation Studies, Kobe, Japan

P-430 HIGHER PREGNANCY RATES AFTER ZONA PELLUCIDA SPERM SELECTION. Rumiana Ganeva, MSc, Dimitar Parvanov, PhD, Magdalena Vasileva, MSc, Kristina Nikolova, MSc and Georgi Stamenov Stamenov, MD/PhD, Nadezhda Women's Health Hospital, Sofia, Bulgaria

P-431 IMPACT OF A MODIFIED ICSI INJECTION PROCEDURE IN ART OUTCOMES: PRELIMINARY FINDINGS. Claudia G Petersen, Ph.D.¹, Ana Lucia Mauri, B.Sc.¹, Mariana Mattila, B.Sc.², Laura D Vagnini, B.Sc.³, Adriana Renzi, Ph.D.³, Bruna Petersen, B.Sc.¹, Andreia Nicoletti, R.N.², Felipe Dieamant, M.D.¹, Joao Batista A Oliveira, M.D., Ph.D.¹, Ricardo L R Baruffi, M.D.¹ and Jose G Franco Jr., M.D., Ph.D.¹, ¹Center for Human Reproduction Prof. Franco Jr/ Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ²Center for Human Reproduction Prof. Franco Jr, Ribeirao Preto, Brazil, ³Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil



POSTER PRESENTATIONS AND ABSTRACTS

P-432 CONSIDERATION OF LOW-INVASIVE ICSI (NBP-ICSI) USING A NON BEVEL PIPET.
Satoshi Akimoto, Bachelor, Ayumi Hamaki, Bachelor, Wakana Bekku, MD, Jun Matsukawa, MD, Miwa Sato, MD, Shuichiro Hara, MD, PHD, Hiroto Tajima, MD, PHD and Hironori Asada, MD, Shinyurigaoka general hospital, Kawasaki-city, Kanagawa, Japan

ART LAB - SPERM

P-433 WHAT IS THE BEST SPERM SOURCE AND METHOD OF SPERM SELECTION IN CASES WITH ABNORMAL SEMINAL OXIDATION-REDUCTION POTENTIAL (ORP) LEVELS ON THE DAY OF ICSI? Eman Mohamed Hassanen, BSc¹, Khaled Mohamed Elqusi, BSc¹, Yasmine sayed Azzouz, BSc¹, Hanaa Ahmed Alkhader, MBBCh¹, Hosam Zaki, MBBCh, Msc, FRCOG¹, Ralf Henkel, PhD² and Ashok Agarwal, PhD³, ¹Ganin Fertility Center, Cairo, Egypt, ²University of the Western Cape, Bellville, South Africa, ³Cleveland Clinic, CLEVELAND, OH

P-434 INVESTIGATION OF DEEP LEARNING BASED DETECTION OF SPERM MORPHOLOGICAL DEFECTS. Hidetoshi Yamashita, M.S.¹, Nobuko Yasui, M.S.², Nozomi Uchida, M.S.², Yuri Sukenobe, M.S.², Megumi Ibayashi, B.S.², Masato Saito, B.S.², Kenichiro Hiraoka, Ph.D² and Kiyotaka Kawai, M.D.Ph.D³, ¹Miraca Research Institute G.K., Hachioji, Japan, ²Kameda IVF Clinic Makuhari, Chiba, Japan, ³Kameda Medical Center, Kamogawa, Japan

P-435 DEFECTS IN SPERM CAPACITATION AND FERTILIZING ABILITY ARE HIGHLY PREVALENT IN MEN UNDERGOING FERTILITY WORKUPS, EVEN IF NORMOSPERMIC. Cristina Cardona, PhD¹, G Charles Ostermeier, PhD¹, Natan Bar-Chama, MD², Joshua Alan Bodie, MD³, Michael J. Butcher, DO⁴, Christopher De Jonge, PHD, HCLD³, Bryan Kloos, PhD, HCLD⁵, Randy S Morris, MD⁶, John E Nichols Jr., MD⁷, Gianpiero D. Palermo, M.D., Ph.D.⁸, Zev Rosenwaks, M.D.⁸, Jay S Schinfeld, MD, FACOG⁹, Eric K Seaman, MD¹⁰, Fady I Sharara, M.D.¹¹ and Alexander J Travis, VMD, PhD¹², ¹Androvia LifeSciences, Mountainside, NJ, ²Icahn School of Medicine at Mount Sinai, New York,

NY, ³University of Minnesota, Minneapolis, MN, ⁴Park Nicollet Clinic, Minneapolis, MN, ⁵Androvia Lifesciences, Mountainside, NJ, ⁶IVF1, Naperville, IL, ⁷Piedmont Reproductive Endocrinology Group, Greenville, SC, ⁸The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ⁹Abington Reproductive Medicine, Abington, PA, ¹⁰New Jersey Urology, Short Hills, NJ, ¹¹Virginia Center for Reproductive Medicine, Reston, VA, ¹²Cornell University, Ithaca, NY

P-436 PATERNAL CONTRIBUTION TO EARLY EMBRYONIC DEVELOPMENT IN SEVERE MALE FACTOR PATIENTS. Jenna Friedenthal, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA², Christine Briton-Jones, PhD, HCLD² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-437 DOES THE USE OF MICROFLUIDIC SPERM SORTING FOR THE SPERM SELECTION IMPROVE IVF SUCCESS RATES IN MALE FACTOR INFERTILITY? Pinar Ozcan, MD, Assoc. Prof.¹, Taha Takmaz, MD¹, Melis Gokce Kocer Yazici, MD², Oya Akcin Alagoz, MD, Assoc. Prof.³, Mert Yesiladali, MD², Cem Neset Fıçıcıoğlu, MD, PhD, Prof.² and Osman Sevket, MD, Assoc. Prof.¹, ¹Bezmialem University, Fatih, Turkey, ²Yeditepe University, Ataşehir, Turkey, ³Yeditepe University, Istanbul, Turkey

P-438 WHICH IS THE BETTER CHOICE FOR THE AZOOSPERMIC PATIENTS WITH AZFC MICRODELETIONS, TESTICULAR SPERM OR DONOR SEMEN (AID) SPERM? Li Zhang, Ph.D¹, Jiaming Mao, MD², Ping Liu, MD;PhD¹ and Jie Qiao, MD;PhD³, ¹Peking University Third Hospital, Beijing, China, ²Peking University Third Hospital, Beijing, China, ³Peking University Third Hospital, Beijing, China

P-439 SPERM SELECTION WITH HYALURONIC ACID (PICS) IMPROVES EFFICIENCY OF IVF CYCLES. Lucia Alegre, PhD¹, Irene Hervas, PhD student², Lorena Bori Arnal, PhD¹, Alberto Tejera Sr., PhD³, Tamara Viloria, PhD¹, Jose Alejandro Remohi, MD, PhD⁴ and Marcos Meseguer, PhD⁵, ¹IVIRMA Global, Valencia, Spain, ²Affiliation not provided, ³Embryologist, Valencia, Spain, ⁴IVIRMA Valencia, Valencia, Spain, ⁵IVIRMA Global, Valencia, Spain, Tel Aviv, Israel



POSTER PRESENTATIONS AND ABSTRACTS

- P-440 SELECTING SPERMATOZOA WITH INTACT CHROMATIN MAY REDUCE EMBRYO ANEUPLOIDY.** Alessandra Parrella, M.Sc., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY
- P-441 ASSESSING AND RESTORING GAMETE FERTILIZING ABILITY.** Stephanie Cheung, B.S., Alessandra Parrella, M.Sc., Derek Keating, B.A., Philip Xie, B.S., Zev Rosenwaks, M.D., Rony Elias, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY
- P-442 SECOND EJACULATION: A SIMPLE, COST FREE MECHANISM TO DEAL WITH HIGH SPERM DNA FRAGMENTATION.** Michael H. Dahan, MD¹, Rabea Youcef Khoudja, MD, PhD², Abbie Gagnon, M.Sc.², Grace Tan, D Phil² and Seang Lin Tan, MD, MBA², ¹Division of REI, McGill University and OriginElle Fertility Clinic and Women's Health Centre, Montreal, QC, Canada, ²Originelle Fertility Center, Montreal, QC, Canada
- P-443 SPERM-BORNE mRNAs AS A BIOMARKER FOR HUMAN SPERM QUALITY.** Yunge Tang, Master degree¹, Ying Zhang, MD, PhD², Wenzhong Zhao, PhD², Xinzong Zhang, MD, PhD², Weibing Qin, MD, PhD², Shunmei Deng, MD², Jiabao Wu, BSc², Mengyuan Zhang, PhD.² and Wei Yan, M.D., Ph.D.³, ¹Family Planning Research Institute of Guangdong Province, Guangzhou, China, ²Affiliation not provided, ³University of Nevada, Reno School of Medicine, Reno, NV
- P-444 DEEP LEARNING-ENABLED SMARTPHONE-BASED SYSTEM FOR AUTOMATED EMBRYO ASSESSMENTS AND EVALUATION.** Manoj Kumar Kanakasabapathy, MS¹, Prudhvi Thirumalaraju, BS¹, Charles L Bormann, PhD², Hemanth Kandula, BS¹, Sandeep Kota Sai Pavan, BS¹, Divyank Yarravarapu, BS¹ and Hadi Shafiee, PhD¹, ¹Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²Massachusetts General Hospital, Harvard Medical School, Boston, MA
- P-445 CHARACTERIZATION OF GLOBOZOOSPERMIA AND THE EFFICACY OF ASSISTED OOCYTE ACTIVATION (AOA) IN AFFLICTED PATIENTS.** Matthew Goldman, B.S., Philip Xie, B.S., Alessandra Parrella, M.Sc., Stephanie Cheung, B.S., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY
- P-446 173 BABIES BORN AFTER ROUND SPERMATID INJECTION INTO OOCYTES: SURVEY OF THEIR DEVELOPMENT FROM FERTILIZATION UP TO 2 YEARS OLD.** Atsushi Tanaka, M.D., Ph.D., Motoi Nagayoshi, M.D., Izumi Tanaka, Phar.B., Takashi Yamaguchi, M.D., Ph.D. and Motoharu Ohno, M.D., Saint Mother Hospital, Kitakyushu, Japan
- P-447 A NEW SPERM PREPARATION SOLUTION IMPROVES THE OUTCOME OF HUMAN CONVENTIONAL IN VITRO FERTILIZATION WITH HYPERACTIVATED SPERMATOZOA.** Hiroyuki Tomari, Ph.D.¹, Kou Honjo, M.D.², Saki Gondo, M.D.², Kensuke Saito, M.D.² and Yumi Nagata, M.D., Ph.D.¹, ¹IVF Nagata Clinic, Fukuoka, Japan, ²Affiliation not provided
- P-448 YOUNGER FEMALE AGE MAY COMPENSATE THE HIGH SPERM DNA FRAGMENTATION IN THE ART PROGRAMS.** Anastasia Kirillova, PhD¹, Irina Vjacheslavovna Ushakova, PhD¹, Maria Farmakovskaya, PhD², Yulia Kiseleva, PhD³, Olga Golubeva, PhD³, Tatiana Volodjaeva, MSC³, Nona Mishieva, PhD⁴ and Aydar Abubakirov, PhD⁴, ¹Embriologist, Moscow, Russian Federation, ²National Medical Research Center for Obstetrics, Gynecology and Perinatology named after Academician V.I.Kulakov of Ministry of Healthcare of Russian Federation, Moscow, Russian Federation, ³Embryologist, Moscow, Russian Federation, ⁴Reproductive endocrinology, Moscow, Russian Federation
- P-449 ICSI OUTCOMES USING SPERMATOZOA WITH OPTIMAL GENOME CHARACTERISTICS.** Alessandra Parrella, M.Sc., Philip Xie, B.S., Aysha Trout, B.A., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY
- P-450 FROM FERTILIZATION TO BLASTOCYST: A COMPARATIVE STUDY OF TESTICULAR TO EJACULATED SPERM IN INTRACYTOPLASMIC SPERM INJECTION (ICSI) TREATMENT CYCLES.** Sophie M LaBarre, BA¹, Shunping Wang,



POSTER PRESENTATIONS AND ABSTRACTS

PHD, HCLD², Richard Hackett, MS² and Carol Wheeler, MD², ¹Warren Alpert Medical School of Brown University, Providence, RI, ²Department of Obstetrics and Gynecology, Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI

P-451 SPERM RETRIEVAL RATES AND CLINICAL OUTCOMES WITH TESTICULAR SPERM EXTRACTION IN RELATION TO THE ETIOLOGY OF AZOOSPERMIA. Tomomoto Ishikawa, MD¹, Shimpei Mizuta, M.HS.², Kohei Yamaguchi, MD¹, Hidehiko Matsubayashi, MD², Kotaro Kitaya, MD¹ and Takumi Takeuchi, MD, PhD², ¹Reproduction Clinic Osaka, Osaka, Japan, ²Reproduction Clinic Tokyo, Tokyo, Japan

P-452 FACTORS WHICH PREDICT IMPROVEMENT IN DNA FRAGMENTATION ON A SECOND SEMEN SPECIMEN 3 HOURS AFTER THE FIRST. Michael H. Dahan, MD¹, Rabea Youcef Khoudja, MD, PhD², Abbie Gagnon, M.Sc.², Grace Tan, D Phil² and Seang Lin Tan, MD, MBA², ¹Division of REI, McGill University and OriginElle Fertility Clinic and Women's Health Centre, Montreal, QC, Canada, ²Originelle Fertility Center, Montreal, QC, Canada

P-453 SPERM DNA FRAGMENTATION INDEX IS NOT ASSOCIATED WITH RECURRENT IVF/ICSI FAILURE. Jordan Best, B.S.¹, Premal Patel, MD², Taylor P Kohn, MD, MPhil³, Elaine de Quadros, D.H.Sc⁴ and Ranjith Ramasamy, M.D.², ¹University of Miami, MIAMI, FL, ²University of Miami Miller School of Medicine, Miami, FL, ³Johns Hopkins University School of Medicine, Baltimore, MD, ⁴Fertility & IVF Center of Miami, Miami, FL

P-454 WITHDRAWN

P-455 MULTI-SITE, BLIND PROSPECTIVE TRIAL ASSESSING WHETHER SEMEN OXIDATION REDUCTION POTENTIAL (SORP) ASSESSMENT CAN BE USED TO PREDICT LOW FERTILISATION WITH CONVENTIONAL IVF: INTERIM ANALYSIS. Georgie Pool, MSc¹, Shaun Rogers, BSc¹, Anastasia Mania, MSc², Georgia Everett, MSc², Alpesh Mahesh Doshi, M.Sc³, Sri Srikantharajah, BVSc⁴, Hasmmukh N Joshi, BSc⁵, Martin Wilding, Ph.D.⁶, Samuel Bishop, MSc⁶, Lourdes Muriel, BSc⁷, Walid Maalouf, PhD⁸ and Cristina Hickman, PhD⁹, ¹City Fertility, London, United

Kingdom, ²Kings Fertility, London, United Kingdom, ³IVF London, London, United Kingdom, ⁴Homerton NHS Hospital, London, United Kingdom, ⁵Homerton Hospital, London, United Kingdom, ⁶Create Fertility, London, United Kingdom, ⁷IVI, London, United Kingdom, ⁸Nottingham University, Nottingham, United Kingdom, ⁹Imperial College London, London, United Kingdom

P-456 THE EVALUATION OF SEMINAL OXIDATION REDUCTION POTENTIAL CAN PREDICT NORMAL SPERM PARAMETERS. Mariem BEN Khelifa, PhD¹, Sonia Mnallah, Dr¹, Mohamed Khrouf, Dr², Khaled Mahmoud, Dr¹, MED Habib BEN Aribia, Dr², Hanen Elloumi, Dr¹, Fathi Zhioua, Dr¹ and Khaled Terras, Dr¹, ¹clinique la rose, centre FERTILLIA, Tunis, Tunisia, ²clinique La Rose, Centre FERTILLIA, jardins du lac 2, Tunisia

P-457 USEFULNESS OF A NEW SPERM TRANSPORT CONTAINER "TRANSPORTER-S" FOR INFERTILITY TREATMENT. Toshiyuki Iwahata, MD, PhD¹, Takashi Tanaka, BSc¹, Akiyoshi Osaka, Bachelor of Medicine¹, Atsushi Yamamoto, MD, PhD², Yoshitomo Kobori, MD, PhD¹, Kouhei Sugimoto, MD, PhD¹ and Hiroshi Okada, MD, PhD¹, ¹Dokkyo Medical University Saitama Medical Center, Koshigaya, Japan, ²Dokkyo Medical University Saitama Medical Center, Saitama-prefecture Koshigaya-city, Japan

ART LAB - TECHNOLOGY

P-458 THE TIME-COURSE FROM GERMAL-VESSICLE BREAK DOWN (GVBD) TO FIRST POLAR BODY EXTRUSION (PBE) IN RESCUED IN VITRO MATURATION (R-IVM), A PROSPECTIVE STUDY ON TIME LAPSE IMAGING. Mingpeng Zhao, PhD Candidate, Tin Chiu Li, MD and David Yiu Leung Chan, PhD, Assisted Reproductive Technology Unit, Department of Obstetrics and Gynecology, Faculty of Medicine, The Chinese University of Hong Kong, Shatin, Hong Kong

P-459 A NOVEL TECHNIQUE OF USING MECHANICAL GRIPPERS TO IMMOBILIZE EMBRYO DURING BIOPSY. Santosh Bhargav, PhD¹, Ramnath T J Babu, PhD¹, Shubham Chandarkar, MTech¹, Ritesh Aggarwal, MSc (CE)², Vivek Dave, MS² and Hemant



POSTER PRESENTATIONS AND ABSTRACTS

Suthar Sr., BSc², ¹SpOvum Technologies Private Limited, Bangalore, India, ²Indira IVF Hospital Pvt. Ltd. Udaipur, Rajasthan, India, Udaipur, India

P-460 DAY 2 LASER ASSISTED HATCHING (AH) SIGNIFICANTLY IMPROVES IMPLANTATION RATES IN FRESH BLASTOCYST TRANSFERS. Sarah H Bjorkman, MD, Stephanie M Nichols-Burns, PhD, Jonathan Lo, MSc, Nuri Kodaman, PhD, Pinar Kodaman, MD/PhD and Dawn A Kelk, Ph.D., HCLD, Yale School of Medicine, New Haven, CT

P-461 INNOVATIVE HIGH THROUGHPUT SCREEN IN EMBRYONIC STEM CELLS REPORTS STRESS-FORCED IMBALANCED DIFFERENTIATION, IMPORTANT TO ANALYZE STRESS IN IVF AND DRUG DEVELOPMENT; ANALYSES USING BULK AND SINGLE CELL RNASEQ. Elizabeth E Puscheck, MD, MS, MBA¹, Sudipta Dutta, Ph.D.¹, Mohammed Abdulkareem Abdulhasan, Ph.D.², Katherine Gurdziel, Ph.D.¹, Douglas Ruden, Ph.D.¹ and Daniel Rappolee, Ph.D.³, ¹Wayne State University, Detroit, MI, ²Reproductive Stress 3M, Inc., Grosse Pointe Farms, MI, ³Wayne state university, Detroit, MI

P-462 AUTOMATED COMPUTER ANALYSIS OF HUMAN BLASTOCYST EXPANSION FROM EMBRYOSCOPE TIME-LAPSE IMAGE FILES. Thomas TF Huang, PhD¹, Brienne C Walker, MS², M Y Harun, BS³, Aaron T Ohta, PhD³, M A Rahman, PhD³, Joshua Mellinger, BS³ and Willy Chang, BS³, ¹University of Hawaii John A Burns School of Medicine, Honolulu, HI, ²Pacific In Vitro Fertilization Institute, Honolulu, HI, ³Department of Electrical Engineering, University of Hawaii at Manoa, Honolulu, HI

ART OFFSPRING

P-463 NEONATAL OUTCOMES OF SINGLETON LIVE BIRTHS WITH VANISHING TWIN SYNDROME FOLLOWING TRANSFER OF DOUBLE EMBRYOS IN ASSISTED REPRODUCTIVE TECHNOLOGY: A RETROSPECTIVE COHORT STUDY. Junfang Yan, Master, The Third Affiliated Hospital of Zhengzhou University, Zhengzhou, China

P-464 REPRODUCTIVE AND PERINATAL OUTCOMES USING CRYOPRESERVED OOCYTES: AN ANALYSIS OF NATIONAL DATABASE

SPANNING OVER A DECADE USING THREE CLINICAL MODELS. Mariano Mascarenhas, MS (OG), MRCOG, DNB (OG), Post-doctoral fellow in reproductive medicine¹, Hazel Mehlawat, Senior School Student², Harish M Bhandari, MBBS MD MRCOG¹ and Meenakshi Choudhary, MBBS MD MRCOG PhD³, ¹Leeds Fertility, Seacroft Hospital, Leeds, United Kingdom, ²Royal Grammar School, Newcastle upon Tyne, United Kingdom, ³Newcastle Fertility Centre at Life, Newcastle upon Tyne, United Kingdom

P-465 DOES BODY MASS INDEX INFLUENCE THE ODDS OF A GOOD PERINATAL OUTCOME FOLLOWING FRESH AUTOLOGOUS IN VITRO FERTILIZATION CYCLES AMONG PATIENTS WITH POLYCYSTIC OVARY SYNDROME? A NATIONAL STUDY. Jenna S Hynes, MD¹, Jeremy M. Weber, MS², Tracy Truong, MS², Kelly S. Acharya, MD¹ and Jennifer L. Eaton, MD, MSCI¹, ¹Division of Reproductive Endocrinology and Infertility, Duke University Medical Center, Durham, NC, ²Department of Biostatistics & Bioinformatics, Duke University Medical Center, Durham, NC

P-466 EFFECT OF IN VITRO FERTILIZATION AND FRESH TRANSFER CONCEPTION ON BIRTHWEIGHT FOR GESTATIONAL AGE : A 2013-2016 FRENCH OBSERVATIONAL COHORT OF 49 224 NEONATES. Sylvie Epelboin Sr., MD¹, Morgane Valentin, MD², Rachel Levy Sr., MD PhD³, Marianne Bergere Sr., MD⁴ and Fabienne Pessione Sr., Dr⁴, ¹Hôpital Bichat-Claude Bernard, Assistance Publique Hôpitaux de Paris, Paris 7 Diderot University, Paris, France, ²Hôpital bichat, Paris, France, ³Hôpital Tenon Assistance Publique Hôpitaux de Paris Sorbonne University, Paris, France, ⁴Agence de la Biomédecine, Saint-Denis, France

P-467 OBSTETRIC, NEONATAL AND LONG-TERM OUTCOMES OF CHILDREN CONCEIVED FROM IN VITRO MATURED OOCYTES. Eun Jeong Yu, MD¹, Tae Ki Yoon, M.D, Ph.D.², Woo Sik Lee, M.D. Ph.D³, Hannah Kim, MD⁴, Chanhong Park, M.D.⁴, Eun A Park, MS² and Jayeon Kim, MD, MPH², ¹CHA Seoul Fertility Center, OB&GY, Seoul, Korea, Republic of (South), ²CHA Seoul Fertility Center, Seoul, Korea, Republic of (South), ³Fertility Center of CHA Gangnam Medical Center, Seoul, Korea, Republic of (South), ⁴Fertility Center of CHA Gangnam Medical Center, SEOUL, Korea, Republic of (South)



POSTER PRESENTATIONS AND ABSTRACTS

P-468 COMPARISON OF BIRTHWEIGHT AND GESTATIONAL AGE AT DELIVERY IN SINGLE FROZEN EMBRYO TRANSFERS (FET) WITH AND WITHOUT PGT-A. Laura Perez Soriano, BA¹, Joshua Stewart, M.D.², Steven Spandorfer, M.D.² and Zev Rosenwaks, M.D.², ¹Weill Cornell Medical College, New York, NY, ²The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-469 ASSOCIATION BETWEEN EMBRYO QUALITY AND BIRTH WEIGHT AMONG SINGLETONS AND TWINS CONCEIVED THROUGH AUTOLOGOUS FRESH IVF CYCLES. Mengmeng Li, MSPH MBBS¹ and Valerie L Baker, MD², ¹Johns Hopkins Bloomberg School of Public Health, Department of Population, Family and Reproductive Health, Baltimore, MD, ²Johns Hopkins University School of Medicine, Division of Reproductive Endocrinology and Infertility, Lutherville, OR

P-470 IMPACT OF MODE OF CONCEPTION ON EARLY PREGNANCY HUMAN CHORIONIC GONADOTROPIN RISE AND BIRTHWEIGHT. Hayley M Richardson, MS¹, Charikleia Kalliora, MD², Monica Mainigi, MD³, Christos Coutifaris, MD, PhD³, Mary D Sammel, ScD¹ and Suneeta Senapati, MD, MSCE², ¹University of Pennsylvania, Philadelphia, PA, ²University of Pennsylvania, Division of Reproductive Endocrinology and Infertility, Philadelphia, PA, ³University of Pennsylvania, Philadelphia, PA

P-471 FIRST TRIMESTER VAGINAL BLEEDING DOES NOT PREDICT SMALL FOR GESTATIONAL AGE NEWBORNS FOLLOWING SINGLE EUPLOID FROZEN EMBRYO TRANSFER. Sydney Chang, MD¹, Sass Wodoslawsky, BA², Lily Ottensoser, BA², Taraneh Gharib Nazem, MD¹, Dmitry Gounko, MA², Joseph A. Lee, BA² and Alan B Copperman, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY

P-472 DELAYED BLASTULATION HAS NO IMPACT ON NEONATAL OUTCOMES IN FROZEN-THAWED SINGLE BLASTOCYST TRANSFER CYCLES. Aya Yamato, B.S.¹, Nanako Isshiki, M.S.², Yuka Miyazaki, M.S.², Hiroshi Matsumoto, M.S.², Satoshi Mizuno, Ph.D.², Ryoko Minekawa, Dr.², Aisaku Fukuda, Dr.³ and Yoshiharu Morimoto, MD, PhD⁴, ¹IVF

Osaka Clinic, Osaka, Japan, ²Affiliation not provided, ³IVF Osaka Clinic, ⁴HORAC Grand Front Osaka clinic, Osaka, Japan

P-473 IS LOW BIRTH WEIGHT RELATED TO HIGH OOCYTE YIELD DURING FRESH TRANSFER ART CYCLES? RETROSPECTIVE ANALYSIS FROM HOMOLOGOUS CYCLES. Edelmiro Garza-Padilla, M.D.¹, Julio C. Rosales, M.D.¹, S. Alberto Dávila-Garza, M.D.¹, Karla A. Cantú, M.Sc.¹, Pasquale Patrizio, M.D.² and Mario A. Patrón-Vázquez, M.D.¹, ¹IECH, Monterrey, NL, Mexico, ²Yale Fertility Center, New Haven, CT

P-474 INCIDENCE OF PRE-TERM BIRTH (PTB), LOW BIRTH WEIGHT (LBW), VERY LOW BIRTH WEIGHT (VLBW), AND MACROSOMIA IN GESTATIONAL CARRIER (GC) PREGNANCIES. Meghan B Smith, MD¹, Rachel S Mandelbaum, MD¹, Jacqueline Ho, MD MS¹, Richard J Paulson, MD, MS¹ and Kristin Bendikson, M.D.², ¹University of Southern California, Los Angeles, CA, ²USC Fertility, Pacific palisades, CA

P-475 PERINATAL OUTCOMES AFTER FRESH VERSUS FROZEN-THAWED EMBRYO TRANSFERS. Mariangela Badalotti, MD, MSc, PhD¹, Shana Flach, Bs², Marta RIBEIRO Hentschke, Bs², Fabiana Wingert, Msc², Ricardo Azambuja, PhD², Vanessa Devens Trindade, MD², Lilian Okada, Bs², Alice Tagliani-Ribeiro, MSc², Letícia Auler Proença, Bs², Bibiana Cunegatto, Bs² and Alvaro Petracco, MD, PhD², ¹Fertilitat-Centro de Medicina Reprodutiva, Porto Alegre, Brazil, ²Fertilitat-Centro de Medicina Reprodutiva, PORTO ALEGRE, Brazil

P-476 RISK OF ADVERSE PERINATAL OUTCOMES AFTER OOCYTE DONATION: A SYSTEMATIC REVIEW AND META-ANALYSIS. Jose Antonio Moreno, MD¹ and Checa Angel Miguel, MD, PhD², ¹Clinica de la Mujer - Medicina Reprodutiva, vina del mar, Chile, ²FERTTY, Barcelona, Spain

ART PREGNANCY RISKS

P-477 OVERVIEW OF 2016 U.S. ASSISTED REPRODUCTIVE TECHNOLOGY (ART) TREATMENT OUTCOMES AND CONTRIBUTION OF ART TO MULTIPLE-BIRTH AND PRETERM INFANTS IN THE UNITED STATES Saswati Sunderam,



POSTER PRESENTATIONS AND ABSTRACTS

- P-478** **IN VITRO FERTILIZATION AND GESTATIONAL HYPERTENSION/PREECLAMPSIA RISK: EFFECT OF DIAGNOSIS VERSUS TREATMENT PARAMETERS.** Barbara Luke, ScD, MPH¹, Morton B Brown, PhD², Michael L Eisenberg, M.D.³, Caitriona M Callan, MBBChir⁴, Beverley Jayne Botting, PhD⁴, Allan Pacey, BSc, PhD⁵, Alastair G Sutcliffe, MD, PhD⁴ and Valerie L Baker, MD⁶, ¹Michigan State University, East Lansing, MI, ²University of Michigan, Ann Arbor, MI, ³Stanford University, Stanford, CA, ⁴Affiliation not provided, ⁵University of Sheffield, Sheffield, United Kingdom, ⁶Johns Hopkins University School of Medicine, Division of Reproductive Endocrinology and Infertility, Lutherville, MD
- P-479** **OBSERVATIONAL 4-YEARS STUDY OF OBSTETRIC COMPLICATIONS AFTER IN VITRO FERTILIZATION (IVF) AND FRESH EMBRYO TRANSFER IN A FRENCH NATIONAL COHORT OF 43,084 DELIVERIES.** Sylvie Epelboin Sr., MD¹, Morgane Valentin, MD², Rachel Levy Sr., MD PhD³, Marianne Bergere Sr., MD⁴ and Fabienne Pessione Sr., Dr⁴, ¹Hôpital Bichat-Claude Bernard, Assistance Publique Hôpitaux de Paris, Paris 7 Diderot University, Paris, France, ²Hôpital bichat, Paris, France, ³Hôpital Tenon Assistance Publique Hôpitaux de Paris Sorbonne University, Paris, France, ⁴Agence de la Biomédecine, Saint-Denis, France
- P-480** **MODE OF DELIVERY IN GESTATIONAL CARRIER (GC) PREGNANCIES IN WOMEN WITH AND WITHOUT A HISTORY OF CESAREAN SECTION (CS).** Meggie B Smith, MD¹, Rachel S Mandelbaum, MD¹, Jacqueline Ho, MD MS¹, Kristin Bendikson, M.D.² and Richard J Paulson, MD, MS¹, ¹University of Southern California, Los Angeles, CA, ²USC Fertility, Pacific palisades, CA
- P-481** **THE IMPACT OF IVF ON NEONATAL BIRTHWEIGHT FROM 2000 TO 2017: A DRAMATIC REDUCTION OF LOW BIRTHWEIGHT INFANTS.** Julia G Kim, MD, MPH¹, Brent M Hanson, MD¹, Andres Reig, M.D.², Shelby A Neal, MD¹, Ashley W Tiegs, MD¹, Emily K Osman, MD¹, Paul A Bergh, MD¹, Emre Seli, M.D.¹ and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Yale University - Bridgeport Hospital, Bridgeport, CT
- P-482** **TWIN PREGNANCY OUTCOMES OF WOMEN WITH A DIDELPHUS UTERUS AFTER IN VITRO FERTILIZATION-EMBRYO TRANSFER.** Pei Cai, Master¹, Xihong Li, MD./Ph.D², Yan Ouyang, MD./Ph.D² and Qingqing Wu, Bachelor's degree², ¹Central South University, Changsha, China, ²Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China
- P-483** **PRECONCEPTION AND VERY EARLY PREGNANCY BLOOD PRESSURE AND DEVELOPMENT OF PRETERM PREECLAMPSIA, TERM PREECLAMPSIA AND GESTATIONAL HYPERTENSION.** Carrie J Nobles, PhD¹, Pauline Mendola, PhD², Sunni L Mumford, PhD³, Robert M Silver, MD⁴, Keewan Kim, PhD¹, Victoria C Andriessen, BS¹, Lindsey A Sjaarda, PhD⁵, Neil J Perkins, PhD¹ and Enrique F Schisterman, PhD¹, ¹NICHD, Bethesda, MD, ²National Institutes of Child Health and Human Development, Bethesda, MD, ³National Institute of Child Health and Human Development, Bethesda, MD, ⁴University of Utah, Salt Lake City, UT, ⁵Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD
- P-484** **PERCEPTIONS OF MULTIFETAL GESTATION AMONGST PATIENTS BEING TREATED FOR INFERTILITY.** Anne Hutchinson, M.D., Seth J Barishansky, MS, Rafael Confino, BS, Angela K. Lawson, Ph.D. and Mary Ellen Pavone, MD, MSCI, Northwestern University, Chicago, IL
- P-485** **RISK OF ECTOPIC PREGNANCY AFTER DIFFERENT OVARIAN STIMULATION PROTOCOLS IN FRESH SINGLE EMBRYO TRANSFER: ANALYSIS OF 71,831 CYCLES FROM THE JAPANESE ART REGISTRY.** Seung Chik Jwa, M.D., Ph.D., M.P.H.¹, Sachie Seto, M.D., Ph.D.¹, Masashi Takamura, M.D., Ph.D.¹, Akira Kuwahara, M.D., Ph.D.², Takeshi Kajihara, M.D., Ph.D.¹ and Osamu Ishihara,



POSTER PRESENTATIONS AND ABSTRACTS

M.D., Ph.D.¹, ¹Saitama Medical University, Saitama, Japan, ²Tokushima University, Tokushima, Japan

P-486 OBSTETRIC AND NEONATAL RISKS IN TERM-SINGLETON ASSISTED REPRODUCTIVE TECHNOLOGY (ART) PREGNANCIES: A SINGLE-CENTER REPORT IN A PERIOD OF 9 YEARS. Satoshi Furuya, MD, Kiyoshi Kubonoya, MD and Ken Kubonoya, MD, Kubonoya Ob/Gyn Clinic, Kashiwa City Chiba Prefecture, Japan

P-487 DOES OFFERING A FINANCIAL INCENTIVE FOR ELECTIVE SINGLE EMBRYO TRANSFER DECREASE RATE OF MULTIPLE GESTATION? Channing Burks, MD, Mabel Lee, MD, Valerie Libby, MD, James Goldfarb, MD, MBA and Rachel S Weinerman, MD, University Hospitals Fertility Center/Case Western Reserve University, Beachwood, OH

P-488 AMONG WOMEN WITH CONGENITAL UTERINE ANOMALIES, IS A SHORT CERVIX PREDICTIVE OF PRETERM BIRTH. Amanda Rae Schwartz, MD and Sarah K Dotters-Katz, MD, Duke University Medical Center, Durham, NC

P-489 THE BETTER TRANSFER STRATEGY IN WOMEN WITH A UNICORNUATE UTERUS: SINGLE BLASTOCYST-EMBRYO TRANSFER VERSUS DOUBLE CLEAVAGE-EMBRYO TRANSFER. Yuyao Mao, Master, Xihong Li, MD./Ph.D, Yan Ouyang, MD./Ph.D and Jingzi Xiao, Master, Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China

P-490 PREVALENCE, RISK FACTORS AND OBSTETRIC OUTCOMES OF ZYGOTIC SPLITTING AFTER SINGLE EMBRYO TRANSFER CYCLES. Romina Verdura, Physician, Maria Ayelen Demarco, Physician, Mercedes Papayannis, BSc, Jimena Maidana, BsC, Mariana Gomez Peña, BSc, Claudio Bisioli, MSc, Guillermo Terrado Gil, MD, Fabio L Sobral, Physician, Alejandro Oubiña, Physician, Laura J Kopcow, Physician, Ignacio De Zuñiga, Physician and Marcos Horton, Physician, Pregna Medicina Reproductiva, Buenos Aires, Argentina

P-492 TREATMENT OF UNFAVORABLE BLEEDING PATTERNS IN CONTRACEPTIVE IMPLANT USERS. Katharine Simmons, MD, MPH¹, Bliss Kaneshiro, MD, MPH², Jennifer Hauschildt, CPH³, Kise Bond, BS, PSM³, Jeffrey T Jensen, MD, MPH⁴ and Alison Edelman, MD, MPH³, ¹The Permanente Medical Group, San Leandro, CA, ²University of Hawaii, Honolulu, HI, ³OHSU, Portland, OR, ⁴Oregon Health & Science University, Portland, OR

P-493 A NOVEL IN VITRO FLUORESCENT REPORTER PLATFORM FOR IDENTIFYING MALE CONTRACEPTIVES. Krista Maye Symosko, B.S.¹, Katherine A. Watkins, B.S.¹, E. Rose Lawson, B.S.¹, In Ki Cho, Ph.D., M.S.², Anthony W.S. Chan, DVM, Ph.D.² and Charles A. Easley IV, Ph.D., M.S.¹, ¹University of Georgia, Athens, GA, ²Emory School of Medicine, Atlanta, GA

P-494 POLIDOCANOL/DOXYCYCLINE FOAM FOR NONSURGICAL PERMANENT FEMALE CONTRACEPTION: 6 MONTH DATA BABOON CONTRACEPTION STUDY. Jeffrey T Jensen, MD, MPH¹, Carol B Hanna, Ph.D.², Shan Yao, M.D.³, Emily Mishler, MS⁴, Daniel Chai, DVM⁵, Nicholas Mukaria Kiulia, MS⁵, Atunga Nyachieo, PhD⁵ and Ov D Slayden, PhD⁶, ¹Oregon Health & Science University, Portland, OR, ²Oregon National Primate Research Center, Beaverton, OR, ³Oregon National Primate Research Center, BEAVERTON, OR, ⁴Affiliation not provided, ⁵Department of Reproductive Health and Biology, Institute of Primate Research, Nairobi, Kenya, ⁶Professor, Portland, OR

P-495 PRE-REMOVAL PLASMA LEVONORGESTREL LEVEL AND RETURN OF FERTILITY AFTER LEVONORGESTREL 52 MG INTRAUTERINE SYSTEM DISCONTINUATION. Michael A. Thomas, MD¹, Gretchen S Stuart, MD, MPH², Carolyn L Westhoff, MD, MSc³, David L Eisenberg, MD, MPH², Andrea I Olariu,

CONTRACEPTION/FAMILY PLANNING

P-491 EFFECT OF SELF-ADMINISTERED LIDOCAINE IN-SITU GEL ON INTRAUTERINE DEVICE INSERTION PAIN: A RANDOMIZED CONTROLLED TRIAL.



POSTER PRESENTATIONS AND ABSTRACTS

- MD, PhD² and Mitchell D Creinin, MD⁴,
¹University of Cincinnati, West Chester, OH, ²Affiliation not provided, ³Columbia University, New York, NY, ⁴University of California - Davis, Sacramento, CA
- P-496 SELF-ADMINISTERED VAGINAL LIDOCAINE IN-SITU GEL PRIOR TO INTRAUTERINE DEVICE INSERTION IS AN EFFECTIVE ANALGESIC IN WOMEN WITH NO PREVIOUS VAGINAL DELIVERY.** Ahmed M Abbas, MD¹, Noura H Abd Ellah, PhD², Meret Ayad, MSc¹ and Mohamed Abdellah, MD¹, ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Pharmaceutics, Faculty of Pharmacy, Assiut University, Assiut, Egypt
- P-497 WOMEN'S SATISFACTION WITH THE MULTIPURPOSE VAGINAL pH-REGULATOR (MVP-R; AMPHORA): RESULTS FROM THE PHASE 3 AMPOWER TRIAL.** Michael A. Thomas, MD¹, Kelly R. Culwell, MD, MPH², Clint Dart, MS³ and Brandi Howard, PhD², ¹University of Cincinnati, Cincinnati, OH, ²Evoform, Inc., San Diego, CA, ³Health Decisions, Durham, NC
- P-498 REPRODUCTIVE AGE WOMEN ARE INTERESTED IN SELF-ADMINISTERED VAGINAL CONTRACEPTIVES THAT PREVENT SEXUALLY TRANSMITTED INFECTIONS.** Emily G. Hurley, MD¹, Giovanni Pauletti, PhD² and Michael A. Thomas, MD², ¹University of Cincinnati, West Chester, OH, ²University of Cincinnati, Cincinnati, OH
- P-499 THE EFFECT OF DIFFERENT PROGESTOGEN ONLY CONTRACEPTIVE METHODS ON FEMALE SEXUAL FUNCTION IN THE FIRST-TIME USERS: A CROSS SECTIONAL STUDY.** Mohammed Khairy Ali, MD, Ahmed M Abbas, MD, Ali Shouman, MBBCh, Ahmed M. Abdelmagied, MD, Alaa A Makhlof, MSc, Mostafa Nasr Ibrahim, MD and Ahmed Makhlof, MD, Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt
- P-500 CHINA FEMALE CONDOM(FCC) FUNCTIONALITY STUDY AGAINST AN EQUIVALENT MARKETED FEMALE CONDOM(FC2).** Yimin Cheng Sr., M.D., National Research Institute for Family Planning, Beijing, China

- P-501 RISK FACTORS FOR NON-COMPLIANCE IN POST VASECTOMY FOLLOW UP.** Johnathan Doolittle, MD, Peter N Dietrich, MD, Pranav Dadhich, MD, Sarah M Brink, BS, Daniel Roadman, BS, Kayvon Kiani, BA, G Luke Machen, MD and Jay I Sandlow, MD, Medical College of Wisconsin, Milwaukee, WI
- P-502 RETURN TO FERTILITY AFTER 1-YEAR USE OF A SEGESTERONE ACETATE/ETHINYL ESTRADIOL CONTRACEPTIVE VAGINAL SYSTEM USE.** Ginger Constantine, MD¹, Kurt T Barnhart, MD, MSCE², Anne E Burke, MD, MPH³, Ruth B Merkatz, PhD⁴, Shelli Graham, PhD⁵, Brian Bernick, MD⁵ and Sebastian Mirkin, MD⁵, ¹EndoRheum Consultants, LLC, Malvern, PA, ²University of Pennsylvania, Perelman School Of Medicine, Philadelphia, PA, ³Johns Hopkins School of Medicine, Baltimore, MD, ⁴Population Council, New York, NY, ⁵TherapeuticsMD, Boca Raton, FL
- P-503 DECLINE IN FERTILITY WITH AGE: AN OVERLOOKED AND UNDER ADDRESSED TOPIC IN WOMEN'S HEALTH VISITS.** Molly Siegel, MD¹, Sylvia Moses, MD², Maureen Baldwin, MD MPH³ and Maria Rodriguez, MD MPH¹, ¹Oregon Health & Science University, Portland, OR, ²Affiliation not provided, ³Oregon Health and Science University, Portland, OR

EARLY PREGNANCY

- P-504 ART CONCEPTIONS ARE NOT A HIGH-RISK POPULATION FOR CELL-FREE FETAL DNA TESTING.** Emilia Mateu-Brull, PhD¹, Miguel Milan, PhD², Lucia Marin, MSc³ and Carlos Simon, MD, PhD⁴, ¹Igenomix, Paterna, Spain, ²NIPT Manager, Paterna/VALENCIA, Spain, ³Igenomix, Valencia, Spain, ⁴University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain
- P-505 IDENTIFICATION OF EARLY PLACENTAL HORMONE PRODUCTION IN PROGRAMMED EMBRYO TRANSFER CYCLES.** Robert Setton, MD¹, Kelly McCarter, MD², Lilli D Zimmerman, MD¹, Zev Rosenwaks, M.D.¹ and Steven Spandorfer, M.D.¹, ¹The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY



POSTER PRESENTATIONS AND ABSTRACTS

P-506 DOES THE HYPERESTROGENIC MILIEU IN FRESH IN VITRO FERTILIZATION CYCLES IMPACT EARLY EMBRYONIC GROWTH? Nigel Pereira, MD¹, Nirali J Shah, MD², Isaac Kligman, M.D.¹ and Zev Rosenwaks, M.D.³, ¹Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY, ³The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-507 CHALLENGING CURRENT VIEWS: A PROSPECTIVE SERIES OF ANGULAR PREGNANCIES MANAGED EXPECTANTLY. Kassie Jean Bollig, MD¹, Danny J Schust, MD², Shvetha M Zarek, MD³ and Albert L Hsu, MD⁴, ¹Resident Physician, Columbia, MO, ²University of Missouri School of Medicine, Columbia, MO, ³Department of Reproductive Endocrinology and Infertility, Columbia, MO, ⁴Department of Reproductive Endocrinology and Infertility; University of Missouri, Columbia, MO

P-508 INFLUENCE OF ASSISTED REPRODUCTIVE TECHNOLOGY (ART) ON EARLY FETAL GROWTH KINETICS. Audrey M Marsidi, MD¹, Caroline Violette, Bachelor of Science², Victoria S Jiang, MD¹, Audrey J Gaskins, ScD³, Jessica B Spencer, MD, MSc¹ and Carolyn Drews-Botsch, Ph.D, MPH³, ¹Emory University School of Medicine, Department of Gynecology and Obstetrics, Atlanta, GA, ²Emory University School of Medicine, Atlanta, GA, ³Emory University, Rollins School of Public Health, Atlanta, GA

P-509 EARLY PLACENTAL GENE EXPRESSION DISCRIMINATES BETWEEN NON-VISUALIZED INTRAUTERINE PREGNANCIES VERSUS TUBAL ECTOPIC PREGNANCY IN UTERINE ASPIRATES. Maureen Baldwin, MD MPH¹ and Jon D Hennebold, PhD², ¹Oregon Health and Science University, Portland, OR, ²Oregon National Primate Research Center, Division of Reproductive & Developmental Sciences, Beaverton, OR

P-510 PREDICTION OF PREGNANCY OUTCOME IN WOMEN WITH FIRST TRIMESTER BLEEDING BY THE DETECTION OF ALPHA-FETOPROTEIN (AFP) IN VAGINAL BLOOD. Amir Mor, MD PhD¹, Karen Jubanyik, MD¹, Mursal Gardezi, BSc¹, Stephanie M Nichols-Burns, PhD¹, Man

Zhang, MD PhD¹, Ecem Esencan, M.D.¹, Burcin Simsek, Ph.D.², David B. Seifer, MD³ and Hugh S. Taylor, M.D.⁴, ¹Yale School of Medicine, New Haven, CT, ²University of Pittsburgh, Pittsburgh, PA, ³Yale University, New Haven, CT, ⁴Yale University School of Medicine, New Haven, CT

P-511 EARLY MUTIFETAL PREGNANCY REDUCTION OUTCOMES: NON-CHEMICAL-BASED METHOD YIELD IMPROVED PREGNANCY RATES AND MINIMIZE RISKS. Ivan Madrazo, MD¹, Ginna Milena Ortiz, MD¹, Karla Y Santiago, MD², Yolanda Piña, MD³, Milton D Flores, MD³ and Esther López-Bayghen, PhD⁴, ¹Ingenes Mexico, Mexico City, DF, Mexico, ²Ingenes México, Mexico City, DF, Mexico, ³Affiliation not provided, ⁴Centro de Investigación y Estudios Avanzados IPN, México, EM, Mexico

P-512 LUTEINIZING HORMONE (LH) SURGE SHOULD REPLACE LAST MENSTRUAL PERIOD (LMP) FOR IMPROVED ACCURACY OF PREGNANCY DATING. James J Morong, MBBS, MPhil¹, Dana B. McQueen, M.D., M.A.S.² and Mary D Stephenson, M.D., M.Sc.¹, ¹University of Illinois at Chicago, Chicago, IL, ²Northwestern University, Chicago, IL

P-513 SUBCHORIONIC HEMATOMA IN THE INFERTILE POPULATION: PREVALENCE AND OUTCOMES. Erin Inman, MD¹, Micaela J Stevenson, BS², Emily K Kobernik, MPH¹, Molly B Moravek, MD, MPH¹ and Samantha B Schon, MD, MTR¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan Medical School, Ann Arbor, MI

P-514 CHARACTERIZING TISSUE PROTEOME CHANGES IN THE DECIDUA AND TROPHOBLAST ASSOCIATED WITH VIABILITY AND LOCATION OF PREGNANCY. Lynn A Beer, B.S.¹, Kurt T Barnhart, MD, MSCE², Mary D Sammel, ScD³, Suneeta Senapati, MD, MSCE², Courtney A. Schreiber, MD, MPH² and David W. Speicher, Ph.D.¹, ¹The Wistar Institute, Philadelphia, PA, ²Department of Obstetrics and Gynecology, University of Pennsylvania, Philadelphia, PA, ³Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania, Philadelphia, PA



POSTER PRESENTATIONS AND ABSTRACTS

ENDOMETRIAL PHYSIOLOGY

- P-515 ISOLATION AND PROFILING OF EXTRACELLULAR VESICLES IN UTERINE FLUID TO DETERMINE NOVEL MARKERS OF ENDOMETRIAL RECEPTIVITY.** Tiantian Li, PhD¹, Ellen Greenblatt, MD² and Crystal Chan, MD, MSc², ¹Lunenfeld-Tanenbaum Research Institute, Sinai Health System, Toronto, ON, Canada, ²Mount Sinai Fertility, Sinai Health System, Toronto, ON, Canada
- P-516 EMBRYO ATP PRODUCTION CAN BE MODULATED BY MATERNAL MITOCHONDRIAL DNA SECRETED FROM THE HUMAN ENDOMETRIUM IN EXTRACELLULAR VESICLES.** David Bolumar, MSc¹, Alicia Amadoz, PhD², Inmaculada Moreno, PhD³, Carlos Simon, MD, PhD⁴ and Felipe Vilella, PhD⁵, ¹Igenomix Foundation/University of Valencia, Paterna, Spain, ²Igenomix, Paterna, Spain, ³Igenomix Foundation, Paterna, Spain, ⁴University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain, ⁵Igenomix Foundation/INCLIVA, Paterna, Spain
- P-517 ENDOMETRIAL EPITHELIAL FOXO1 DIRECTLY MODULATES SIGNALING PATHWAYS NECESSARY FOR UTERINE RECEPTIVITY.** Sarah M Moustafa, MD¹, Steven L Young, M.D., Ph.D.¹, Tianyuan Wang, PhD², Steve Wu, PhD², Rong Li, PhD², Xiaoqiu Wang, PhD³, Tom Spencer, PhD⁴ and Francesco Demayo, PhD², ¹UNC School of Medicine, Chapel Hill, NC, ²National Institute of Environmental Health Sciences, Research Triangle Park, NC, ³North Carolina State University, Raleigh, NC, ⁴Affiliation not provided
- P-518 PRESENCE OF p16-POSITIVE SENESCENT CELLS IN HUMAN ENDOMETRIUM DURING THE MID-LUTEAL PHASE OF THE MENSTRUAL CYCLE.** Dimitar Parvanov, PhD¹, Dragomira Nikolova, PhD², Rumiana Ganeva, MSc¹, Nina Vidolova, MSc¹ and Georgi Stamenov Stamenov, MD/PhD¹, ¹Nadezhda Women's Health Hospital, Sofia, Bulgaria, ²Department of Medical Genetics, Medical Faculty, Medical University – Sofia, Sofia, Bulgaria
- P-519 THE ENDOMETRIAL MICROBIOME OF CLINICAL MISCARRIAGE, ECTOPIC PREGNANCY AND DURING EARLY**

PREGNANCY IN A SUCCESSFUL LIVE-BIRTH.

Iolanda Garcia Grau, MS¹, Inmaculada Moreno, PhD², David Perez-Villaroya, MS³, Davide Bau, PhD³, Marta Gonzalez-Monfort, BS², Felipe Vilella, PhD² and Carlos Simon, MD, PhD¹, ¹University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain, ²Igenomix Foundation/INCLIVA, Paterna, Spain, ³Igenomix, Paterna, Spain

ENDOMETRIOSIS

- P-520 CHANGES IN ANTI-MÜLLERIAN HORMONE AND AMOUNT OF ETHANOL USED DURING ULTRASOUND GUIDED ASPIRATION OF OVARIAN CYST.** Lulu Huang, MD¹, Ming-Yang Chang, MD² and Yu-Cheng Liu, MD³, ¹Chang Gung Memorial Hospital Linkou Medical Center, Taipei, Taiwan, ²199 Tun-Hua North Road, 12F Taipei, Taiwan, Taipei, Taiwan, ³Affiliation not provided
- P-521 DOES ENDOMETRIOSIS IMPACT ON THE EMBRYONIC ANEUPLOIDY RISK?** Verónica Legidos, MD¹, Purificación Hernández-Vargas, PhD¹, Blanca Gadea, BsC¹, Victor Lozoya, BsC² and Manuel Muñoz, MD¹, ¹IVIRMA ALICANTE, Alicante, Spain, ²IVIRMA Foundation, Valencia, Spain
- P-522 PREOPERATIVE SERUM ANTI-MULLERIAN HORMONE LEVELS IN WOMEN WITH OVARIAN ENDOMETRIOSIS COMPARED TO WOMEN WITH PERITONEAL ENDOMETRIOSIS.** Serin I Seckin, MD¹, Tamer A Seckin, MD² and Karli Provost Goldstein, DO², ¹Icahn School of Medicine at Mount Sinai West/St. Luke's, New York, NY, ²Lenox Hill Hospital/ Northwell Health System, New York, NY
- P-523 DIENOGEST FOR PAIN AND INTESTINAL SYMPTOMS CAUSED BY RECTOSIGMOID ENDOMETRIOSIS: PROSPECTIVE COHORT STUDY.** Simone Ferrero, MD, PhD¹, Carolina Scala, MD², Valerio Gaetano Vellone, MD, PhD³, Umberto Leone Roberti Maggiore, MD, PhD⁴, Ennio Biscaldi, MD⁵ and Fabio Barra, MD¹, ¹DINO GMI, University of Genova, Genova, Italy, ²Istituto G. Gaslini, Genova, Italy, ³DISC, University of Genova, Genova, Italy, ⁴Department of Gynecologic Oncology, IRCCS National Cancer Institute, Milan, Italy, ⁵Department of Radiology, Galliera Hospital, Genova, Italy



POSTER PRESENTATIONS AND ABSTRACTS

- P-524 FIBER AND GLUTEN INTAKE AND RISK OF LAPAROSCOPICALLY-CONFIRMED ENDOMETRIOSIS.** Holly Harris, M.P.H., Sc.D.¹, Myriam C Afeiche, PhD², Kathryn L. Terry, Sc.D.³, Jorge E Chavarro, MD, Sc.D.⁴ and Stacey A Missmer, Sc.D.⁵, ¹Fred Hutchinson Cancer Research Center, Seattle, WA, ²Nestlé Research Center, Lausanne, Switzerland, ³Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health, Boston, MA, ⁴Harvard School of Public Health, Boston, MA, ⁵Michigan State and Harvard T.H. Chan SPH, Grand Rapids, MI
- P-525 IN UTERO AND EARLY LIFE EXPOSURES IN RELATION TO ODDS OF ENDOMETRIOSIS IN ADOLESCENTS AND YOUNG ADULTS.** Naoko Sasamoto, M.D., M.P.H.¹, Leslie V. Farland, Sc.D.², Allison F Vitonis, M.S.¹, Holly Harris, M.P.H., Sc.D.³, Amy D. DiVasta, MD, MMSc⁴, Marc R. Laufer, M.D.⁵, Kathryn L. Terry, Sc.D.⁶ and Stacey A Missmer, Sc.D.⁷, ¹Brigham and Women's Hospital, Boston, MA, ²University of Arizona, Tucson, AZ, ³Fred Hutchinson Cancer Research Center, Seattle, WA, ⁴Boston Children's Hospital, Boston, MA, ⁵Boston Children's Hospital and Boston Center for Endometriosis, Boston, MA, ⁶Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health, Boston, MA, ⁷Michigan State Univ and Harvard T.H. Chan SPH and Boston Ctr for Endometriosis, Grand Rapids, MI
- P-526 CUMULATIVE CLINICAL PREGNANCY AFTER SURGICAL TREATMENT OF INFERTILE WOMEN WITH ENDOMETRIOSIS.** William Butler, MD¹, Arshia Rassi, DO², Kristina C Hawkins, MD³ and Abdelmoneim Younis, DVM, PhD¹, ¹Mercer University School of Medicine, MAON, GA, ²Mercer University School of Medicine, Macon, GA, ³Affiliation not provided
- P-527 SERUM METABOLOMIC PROFILE AS A NON-INVASIVE ADJUNCT TOOL FOR THE DIAGNOSIS OF ENDOMETRIOSIS-RELATED INFERTILITY.** Daniela Antunes Montani, PhD¹, Daniela Paes de Almeida Ferreira Braga, PhD², Amanda Souza Setti, MSc², Assumpto Iaconelli Jr., MD², Diogo Oliveira-Silva, PhD¹ and Edson Borges Jr., PhD², ¹UNIFESP, Diadema, Brazil, ²Fertility Medical Group / Sapientiae Institute, Sao Paulo, Brazil
- P-528 SYSTEMATIC REVIEW AND CRITICAL APPRAISAL OF CURRENT ENDOMETRIOSIS GUIDELINES INCLUDING 2018 SPANISH ENDOMETRIOSIS GUIDELINE WITH FOUR EVALUATION METHODS.** María Carrera, MD¹, Jose Antonio Dominguez, MD, PHD², Enrique Perez de la Blanca, MD³, Roberto Matorras, Professor⁴, José María Gris, MD, PhD⁵, Gorka Barrenetxea, Professor⁶, Carmen Maria Segura, MD⁷, Miguel Caballero, MD, PhD⁸ and Joaquin Llacer, PhD⁹, ¹Medical Doctor, Gynaecologist, Specialist in Reproductive Medicine, Madrid, Spain, ²Reproducción specialist, Badajoz, Spain, ³Hospital Quironsalud. Assisted Reproduction Unit., Malaga, Spain, ⁴Basque Country University, Bilbao, Spain, ⁵Hospital Vall d'Hebron, Barcelona, Spain, ⁶MEDICAL DIRECTOR OF REPRODUCCION BILBAO, BILBAO, Spain, ⁷Medical doctor, Madrid, Spain, ⁸Gynecologist, Madrid, Spain, ⁹Instituto Bernabeu, Alicante, Spain
- P-529 PRESENCE OF HUMAN HERPESVIRUS 6 (HHV-6) ANTIGENS IN PAIRED SURGICAL SPECIMENS FROM WOMEN EVALUATED FOR ENDOMETRIOSIS: A SURVEY OF NINE PATIENTS.** Kaitlin Doody, MD¹, Michael C Doody, MD PhD², Alexander Romashko, DO³ and Konstance Knox, PhD³, ¹UT Southwestern, Dallas, TX, ²The Center for Reproductive Medicine, Knoxville, TN, ³Coppe Healthcare Solutions, Waukesha, WI
- P-530 EFFECTS OF DIENOGEST ON BREAST : MCF CELL LINE DATA.** Hyun Jin Kim, M.D., Sung Hoon KIM, M.D., Ph.D, Young Sang Oh, M.S., Do Young Kim, M.D., Sa Ra Lee, M.D. PhD., Hee Dong Chae, M.D., Ph.D. and Byung Moon Kang, M.D. PhD., University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea, Republic of (South)
- P-531 MAGNETIC RESONANCE WITH GEL ENEMA (MR-E) VERSUS COMPUTED TOMOGRAPHIC COLONOGRAPHY (CTC) FOR DIAGNOSING RECTOSIGMOID ENDOMETRIOSIS.** Simone Ferrero, MD, PhD¹, Fabio Barra, MD¹, Carolina Scala, MD², Valerio Gaetano Vellone, MD, PhD³ and Ennio Biscaldi, MD⁴, ¹DINOEMI, University of Genova, Genova, Italy, ²Istituto G. Gaslini, Genova, Italy, ³DISC, University of Genova, Genova, Italy, ⁴Department of Radiology, Galliera Hospital, Genova, Italy



POSTER PRESENTATIONS AND ABSTRACTS

- P-532 MARKERS OF LOCAL AND SYSTEMIC ESTROGEN METABOLISM IN ENDOMETRIOSIS.** Velja Mijatovic, M.D., PhD¹, Essam R. Othman, MD², Maha Y. Khashbah, MSc³, Ibraheem I Abdelaal, MD⁴, Ahmad Abo Markeb, PhD⁵, Ahmed N. Fetih, MD⁴ and C. B. Lambalk, MD PhD⁶, ¹Amsterdam University Medical Center, location VU, Amsterdam, Netherlands, ²Associate professor, OB-GYN department, Assiut, Egypt, ³Women's Health Hospital, Assiut, Egypt, ⁴Associate professor, Assiut, Egypt, ⁵Lecturer, Chemistry Department, Faculty of Science, Assiut University, Assiut, Egypt, ⁶Amsterdam University Medical Center, reproductive medicine department, Amsterdam, Netherlands
- P-533 IMPACT OF GONADOTROPIN-RELEASING HORMONE AGONIST POST-OPERATIVE TREATMENT ON OVARIAN RESERVE CHANGES AFTER LAPAROSCOPIC SURGERY OF OVARIAN ENDOMETRIOMA.** Yoo jin Shim, MD. and Jung Ryeol Lee, MD. PhD., Seoul National University Bundang Hospital, Seongnam, Korea, Republic of (South)
- P-534 A LONGITUDINAL ASSESSMENT OF THE IMPACT OF ENDOMETRIOSIS ON PATIENTS' SALARIES .** Stephanie J Estes, MD¹, Ahmed M Soliman, MS, PhD², Hongbo Yang, PhD³ and Jessie Wang, ScD³, ¹Penn State Milton S. Hershey Medical Center, Hershey, PA, ²AbbVie, North Chicago, IL, ³Affiliation not provided
- P-535 ELEVATED SERUM INTERLEUKIN-32 LEVELS IN PATIENTS WITH ENDOMETRIOSIS: A PROSPECTIVE CASE-CONTROL STUDY.** Sung Hoon KIM, M.D., Ph.D¹, SiHyun Cho, M.D., Ph.D.², Young Sang Oh, M.S.¹ and Young Sik Choi, M.D., Ph.D.³, ¹University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea, Republic of (South), ²Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Korea, Republic of (South), ³Severance Hospital, Seoul, Korea, Republic of (South)
- P-536 ULTRALONG-TERM CYCLIC USE OF LOW-DOSE MONOPHASIC COMBINED ORAL CONTRACEPTIVE PILLS FOR THE MANAGEMENT OF RECURRENT SEVERE ENDOMETRIOSIS AFTER SECOND-LINE SURGERY.** Chung-Hoon Kim, M.D., Ph.D., Jei-Won Moon, M.D. and Shin Yong Moon, M.D., Ph.D., M Fertility Center, Seoul, Korea, Republic of (South)
- P-537 THE USE OF DEXTROAMPHETAMINE SULFATE TO ALLEVIATE PELVIC PAIN DOES NOT LOWER LIVE DELIVERED PREGNANCY RATES FOLLOWING IN VITRO FERTILIZATION-EMBRYO TRANSFER (IVF-ET) IN YOUNGER WOMEN.** Jerome H Check, M.D., Ph.D.¹, Diane L Check, BS, MT², Rachael Cohen, D.O.¹, Eric Chang, D.O.¹ and Carrie K Wilson, B.A.², ¹Cooper Medical School of Rowan University, Camden, NJ, ²Cooper Institute for Reproductive Hormonal Disorders, P.C., Mt. Laurel, NJ
- P-538 ANALYSIS OF METABOLIC PATHWAYS AS A NOVEL CLINICAL BIOMARKERS OF ENDOMETRIOSIS.** Ya-Ching Chou, Ph D¹ and Chii-Ruey Tzeng, MD, MPH², ¹National Chiao Tung University, Hsinchu, Taiwan, ²Taipei Medical University Hospital, Taipei, Taiwan
- P-539 LONG TERM TREATMENT OF ENDOMETRIOSIS ASSOCIATED PAIN (EAP) WITH LINZAGOLIX: EFFICACY AND SAFETY AFTER 12 MONTHS OF TREATMENT.** Robert N Taylor, MD PhD¹, Elke Bestel, MD², Jean-Pierre Gotteland, PhD², Veronique Lecomte, Pharm D², Rachel Dubouloz, MSc.², Paul Terrill, PhD³, Andrew Humberstone, PhD² and Ernest Loumaye, MD, PhD², ¹University of Utah Health, Salt Lake City, UT, ²ObsEva SA, Plan-les-Ouates, Switzerland, ³Cytel Inc, London, United Kingdom
- P-540 DECREASED CLINICAL PREGNANCY AND LIVE BIRTH RATES IN WOMEN WITH ENDOMETRIOSIS, IN THE "EIVF" DATABASE.** Kassie Jean Bollig, MD¹, Henok G Woldu, PhD², Judy E Stern, PhD³ and Albert L Hsu, MD⁴, ¹Resident Physician, Columbia, MO, ²Biostatistics and Research Design Unit; University of Missouri, Columbia, MO, ³Dartmouth-Hitchcock, Lebanon, OR, ⁴Department of Reproductive Endocrinology and Infertility; University of Missouri, Columbia, MO
- P-541 CIRCULATING PLACENTAL GROWTH FACTOR (PLGF) CONCENTRATION IN PREGNANT WOMEN WITH ENDOMETRIOSIS: A CASE-CONTROL STUDY.** Simone Ferrero, MD, PhD¹, Fabio Barra, MD¹, Valerio Gaetano Vellone, MD, PhD², Umberto Leone Roberti Maggiore, MD, PhD³ and Carolina Scala, MD⁴, ¹DINOGLMI, University of Genova, Genova, Italy, ²DISC, University of Genova, Genova,



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Italy, ³Department of Gynecologic Oncology, IRCCS National Cancer Institute, Milan, Italy, ⁴Istituto G. Gaslini, Genova, Italy

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ABERRANT EXPRESSIONS OF CHLORIDE CO-TRANSPORTERS IN ENDOMETRIOSIS. Inha Lee, M.D.¹, Young Bin Won, M.D.¹, Heeyon Kim, M.D.², Jae Hoon Lee, M.D.¹, Bo Hyon Yun, M.D.¹, Seok Kyo Seo, M.D.¹, Young Sik Choi, M.D., Ph.D.¹, Byung Seok Lee, M.D., Ph.D.¹ and SiHyun Cho, M.D., Ph.D.², ¹Yonsei University College of Medicine, Severance hospital, Seoul, Korea, Republic of (South), ²Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Korea, Republic of (South)

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PROPRANOLOL INHIBITS CATECHOLESTROGEN-INDUCED HUMAN ENDOMETRIAL STROMAL CELL SURVIVAL MEDIATED BY p38 MAPK SIGNALING: POTENTIAL THERAPY FOR ENDOMETRIOSIS. Rachel Grimes Sprague, MD, Joung Woul Kim, PhD, Asli Ozmen, PhD, Xiaofang Guo, MD, Anthony N Imudia, MD, Charles J Lockwood, MD, MHCM, Ronald R Magness, PhD and Umit A Kayisli, PhD, Department of Obstetrics and Gynecology, Morsani College of Medicine, University of South Florida, Tampa, FL

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ENDOMETRIOSIS INCREASED ATHEROSCLEROSIS IN A MURINE MODEL. Ramanaiah Mamillapalli, PhD¹, Nikolett Toffoloni, BA¹, Joshua Huttler, BA¹, Yan Zhang, MD, PhD¹, Peng Chen, MD, PhD¹, Nina Stachenfeld, PhD² and Hugh S. Taylor, M.D.¹, ¹Yale University School of Medicine, New Haven, CT, ²The John B. Pierce Laboratory

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PROSTAGLANDIN E2 ACTIVATES COMPLEMENT PROTEIN CD55 TO ENHANCE CELL ADHESION IN ENDOMETRIOSIS. Elliott G Richards, MD, Emily L Esakov, PhD, Chad A Braley, BS, Jenna M Rehmer, MD, Jeffrey M Goldberg, M.D. and Ofer Reizes, PhD, Cleveland Clinic Foundation, Cleveland, OH

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α1D-ADRENERGIC RECEPTOR EXPRESSION IN HUMAN ENDOMETRIAL STROMAL CELLS CONTRIBUTES TO CATECHOLESTRADIOL-INDUCED CELL SURVIVAL: IMPLICATIONS FOR ENDOMETRIOSIS. Rachel Grimes Sprague, MD, Joung Woul Kim, PhD, Esma Kirimlioglu-Konuk, PhD, Anthony N Imudia, MD, Charles J Lockwood, MD, MHCM, Ronald R Magness, PhD and Umit A Kayisli, PhD, Department of Obstetrics and Gynecology, Morsani College of Medicine, University of South Florida, Tampa, FL

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PELVIC FLOOR MUSCLE SPASM, COMORBID PAIN AND MENTAL HEALTH CONDITIONS IN WOMEN WITH ENDOMETRIOSIS-ASSOCIATED CHRONIC PELVIC PAIN. Pamela Stratton, MD¹, Hannah K Tandon, BA², Vy Phan, BS², Ninet Sinaii, PhD, MPH³, Jay Shah, MD², Margaret Bevans, PhD, RN⁴ and Barbara I Karp, MD¹, ¹Office of the Clinical Director, Intramural Research Program, National Institute of Neurological Disorders and Stroke, NIH, Bethesda, MD, ²Rehabilitation Medicine Department, Intramural Research Program, Clinical Center, NIH, Bethesda, MD, ³Biostatistics & Clinical Epidemiology Service, Intramural Research Program, Clinical Center, NIH, Bethesda, MD, ⁴Office of Research in Women's Health, NIH, Bethesda, MD

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EFFECT OF ENDOMETRIOSIS ACTIVITY ON PREGNANCY OUTCOME IN PATIENTS WITH REPEATED IMPLANTATION FAILURE. Chenyi Zhong, Master¹, Liusijie Gao, master², Jingqin Mao, Master² and Yundong Mao, professor³, ¹First Affiliated Hospital of Nanjing Medical University, Nanjing, China, ²Affiliation not provided, ³OB/GYN, Nanjing, China

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SYMPATHOMIMETIC AMINE THERAPY MAY IMPROVE LIVE DELIVERED PREGNANCY RATES (PRS) FOLLOWING IN VITRO FERTILIZATION-EMBRYO TRANSFER (IVF-ET) IN WOMEN OF ADVANCED REPRODUCTIVE AGE – A PILOT STUDY. Jerome H Check, M.D., Ph.D.¹, Rachael Cohen, D.O.¹, Diane L Check, BS, MT² and Eric Chang, D.O.¹, ¹Cooper Medical School of Rowan University, Camden, NJ, ²Cooper Institute for Reproductive Hormonal Disorders, P.C., Mt. Laurel, NJ

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OVEREXPRESSION OF CD44v6 IS INVOLVED IN THE DEVELOPMENT OF THE EARLY ENDOMETRIOTIC LESION IN A XENOGRFT MODEL. Jennifer Knudtson, MD¹, Jessica E McLaughlin, MD¹, Marlen Tellez Santos, BS, MS² and Robert Schenken, MD¹, ¹University of Texas Health Science Center San Antonio, San Antonio, TX, ²University of Incarnate Word, San Antonio, TX

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P-551 NFκB2 EXPRESSION IN ENDOMETRIOSIS IS REGULATED BY miRNA LET-7b. Valerie A. Flores, MD, Peng Chen, MD, PhD, Joshua Huttler, BA, Yuping Zhou, BA, Tran Dang, BS, Ramanaiah Mamillapalli, PhD and Hugh S. Taylor, M.D., Yale University School of Medicine, New Haven, CT

P-552 A REPLICATION STUDY OF PLASMA MICRORNA EXPRESSION IN ADOLESCENTS WITH ENDOMETRIOSIS. Paula C. Brady, MD¹, Ayotunde B. Fadayomi, MD, MPH², Allison F Vitonis, M.S.², Kathryn L. Terry, Sc.D.³, Amy Shafrir, Sc.D.⁴, Marc R. Laufer, M.D.⁴, Asgi Fazleabas, PhD⁵, Mark D Hornstein, MD², Kevin M. Elias, M.D.² and Stacey A Missmer, Sc.D.⁶, ¹Columbia University Medical Center, New York, NY, ²Brigham and Women's Hospital, Boston, MA, ³Brigham and Women's Hospital and Harvard T.H. Chan School of Public Health, Boston, MA, ⁴Boston Children's Hospital and Boston Center for Endometriosis, Boston, MA, ⁵Michigan State University College of Human Medicine, Grand Rapids, MI, ⁶Michigan State Univ and Harvard T.H. Chan SPH and Boston Ctr for Endometriosis, Grand Rapids, MI

P-553 INCREASED EXPRESSION OF YAP (YES-ASSOCIATED PROTEIN) IS ASSOCIATED WITH THE DECREASED CELL AUTOPHAGY IN THE EUTOPIC ENDOMETRIAL STROMAL CELLS OF WOMEN WITH ENDOMETRIOSIS. Wei Huang, Ph.D, M.D.¹, Tianjiao Pei, M.D.¹, Xin Huang, M.M. Candidate² and Yujing Li, M.D.³, ¹West China Second University Hospital of Sichuan University, Chengdu, China, ²Department of Obstetrics and Gynecology, West China Second University Hospital of Sichuan University, Chengdu, China, ³Affiliation not provided

P-554 CD4 AND CD8 BUT NOT DN MUCOSA-ASSOCIATED INVARIANT T CELLS FOSTER THE DEVELOPMENT OF ENDOMETRIOSIS: A PILOT STUDY. Huanhuan Jiang, Doctor, Kaihuan Bi, Bachelor's, Zhimin Lu, Bachelor's, Caihua Li, Doctor, Peipei Guo, Graduate and Yunxia Cao, Doctor, The First Affiliated Hospital of Anhui Medical University, Hefei, China

P-555 ESTROGEN PROMOTES THE CHEMOTACTIC MIGRATION AND DIFFERENTIATION OF BONE

MARROW MESENCHYMAL STEM CELLS IN ENDOMETRIOSIS. Wenbi Zhang, doctor¹, Lu Li, professor² and Xiaoxi Sun, professor³, ¹Obstetrics and Gynecology Hospital of Fudan University, Shanghai, China, ²Affiliation not provided, ³Obs/Gyn hospital of fudan university, shanghai, China

P-556 ENDOMETRIOSIS RISK ALLELE IN WNT4 MAY INTERACT WITH RARE MUTATIONS IN HDAC2 GENE. Kenneth Ward, MD, Rakesh Chettier, MS and Hans M Albertsen, PhD, Juneau Biosciences, LLC, Salt Lake City, UT

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P-558 CELL-SPECIFIC EFFECTS OF CLOMID AND E2 ON ENDOMETRIUM: INSIGHTS INTO WNT SIGNALING AND STROMAL-EPITHELIAL INTERACTIONS. Melanie Evans, MS, MD¹, Lucy Xi Chen, MD¹, Ann Word, MD², John Wu, MD³, Patrick Keller, BS², Bruce Carr, MD² and Orhan Bukulmez, MD⁴, ¹Parkland/UTSW Resident, Dallas, TX, ²UTSW, Dallas, TX, ³UT Southwestern, Dallas, TX, ⁴UTSouthwestern Medical Center, Dallas, TX

P-559 DOES UNIVERSAL SCREENING FOR CHRONIC ENDOMETRITIS IMPROVE PREGNANCY RATES? Holly Mehr, MD MSe¹, Mousa Shamonki, MD², Chunmin Wang, PhD², Richard Buyalos, MD², Gary Hubert, MD² and Molly M Quinn, MD¹, ¹University of California, Los Angeles, Los Angeles, CA, ²Fertility and Surgical Associates of California, Thousand Oaks, CA

P-560 GATA BINDING PROTEIN 2 EXPRESSION AT IMPLANTATION WINDOW DIMINISHES IN WOMEN WITH ADENOMYOSIS: IMPLICATIONS FOR IMPAIRED ENDOMETRIAL RECEPTIVITY. Joung Woul Kim, PhD¹, Chih-Feng Yen, MD, PhD², Rachel Grimes Sprague, MD¹, Asli Ozmen, PhD¹, Nihan Semerci, MSc¹, Charles J Lockwood, MD, MHCM¹, Anthony N. Imudia, MD¹ and Umit A Kayisli, PhD¹, ¹Department of Obstetrics and Gynecology, Morsani College of Medicine, University of South Florida, Tampa, FL, ²Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital at Linkou, Chang Gung University College of Medicine, Kwei-Shan, Taoyuan, Taiwan



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P-561 **DEFINING CHRONIC ENDOMETRITIS: ARE PLASMA CELLS SUFFICIENT?** Dana B. McQueen, M.D., M.A.S., Kruti P Maniar, M.D., Anne Hutchinson, M.D., Rafael Confino, BS, Jared C Robins, MD, Lia A. Bernardi, MD and Mary Ellen Pavone, MD, MSCI, Northwestern University, Chicago, IL

P-562 **IMPROVEMENT OF ENDOMETRIAL RECEPTIVITY THROUGH THE USE OF AUTOLOGOUS PLATELET-DERIVED MICROPARTICLES.** Enriqueta Garijo Lopez, OBGYN¹, Laura Garcia Bernardo, OBGYN² and Federico Galera Fernandez, OBGYN¹, ¹Instituto Madrileño de Fertilidad, Madrid, Spain, ²Instituto Madrileño de fertilidad, Madrid, Spain

P-563 **REDUNDANT ENDOMETRIUM AND ENDOMETRIAL POLYPS: IS THERE A LINK?** Irene Peregrin Alvarez, MD¹, Robert Roman, MD¹, Mary Emily Christiansen, MD¹, Ghassan Saed, MD² and Laura Detti, MD¹, ¹University of Tennessee Health Science Center, Memphis, TN, ²Wayne State University School of Medicine, Detroit, MI

P-564 **PREVALENCE OF CHRONIC ENDOMETRITIS IN PATIENTS WITH ENDOMETRIAL POLYPS AND UNEXPLAINED INFERTILITY.** Alexander Volodarsky-Perel, M.D., Ahmad Badeghiesh, M.D., MPH, Guy Shrem, M.D., Naama Steiner, M.D. and Togas Tulandi, M.D., McGill University Health Centre, Montreal, QC, Canada

P-565 **WHAT IS THE MOST EFFECTIVE TREATMENT FOR ENDOMETRITIS IN WOMEN UNDERGOING ASSISTED REPRODUCTIVE TECHNOLOGY?** Sweta A Canumalla, MBBS¹, Jennifer K Blakemore, MD², James A Grifo, MD, PhD³ and David L. Keefe, M.D.⁴, ¹NYU School of Medicine, New York, NY, ²NYU Langone School of Medicine, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY, ⁴New York University School of Medicine, Department of Obstetrics and Gynecology, New York, NY

P-566 **NEW RELATION BETWEEN DYSBIOSIS OF THE VAGINAL AND ENDOMETRIAL MICROBIOTA AND RIF FOUND.** Takuhiko Ichiyama, M.D.¹, Yoko Nagai, Ph.D.², Daichi Urushiyama, M.D., Ph.D.³, Motoharu Ohno, M.D.¹, Takashi Yamaguchi, M.D., Ph.D.¹, Motoi Nagayoshi, M.D.¹, Yoshiyuki Sakuraba, Ph.D.², Fumio Yamasaki, M.D., Ph.D.⁴, Keiji Kuroda, M.D.,

Ph.D.⁵, Kenichiro Hata, M.D., Ph.D.⁶, Shingo Miyamoto, M.D., Ph.D.³, Atsushi Tanaka, M.D., Ph.D.¹, Atsuo Itakura, M.D., Ph.D.⁷ and Satoru Takeda, M.D., Ph.D.⁷, ¹Saint Mother Hospital, Kitakyushu, Japan, ²Varinos Inc., Tokyo, Japan, ³Fukuoka University, Fukuoka, Japan, ⁴Saga Central Hospital, Saga, Japan, ⁵Sugiyama Clinic Shinjuku, Tokyo, Japan, ⁶National Research Institute for Child Health and Development, Tokyo, Japan, ⁷Juntendo University School of Medicine, Tokyo, Japan

P-567 **COMPARISON OF THE ENDOMETRIAL RECEPTIVITY ARRAY TO ENDOMETRIAL THICKNESS, ESTRADIOL AND PROGESTERONE LEVELS AS A MARKER FOR ENDOMETRIAL RECEPTIVITY PRIOR TO FROZEN EMBRYO TRANSFER.** Shannon T Alexa, DO, Inspira Health Network, Vineland, NJ

P-568 **PROSPECTIVE EVALUATION OF HUMAN HERPESVIRUS 6 (HHV-6) IN ENDOMETRIAL TISSUES OF WOMEN WITH REPEAT IMPLANTATION FAILURE.** Kevin J. Doody, M.D.¹, Kathleen M Doody, MD¹, Phillip F Pratt Jr., PhD² and Konstance Knox, PhD², ¹CARE Fertility, Bedford, TX, ²Coppe Healthcare Solutions, Waukesha, WI

P-569 **IDENTIFICATION OF NEW BIOMARKERS OF HUMAN ENDOMETRIAL RECEPTIVITY AND MATERNAL-FETAL DIALOGUE.** Imane EL Kasmî, Ph.D.¹, Soumaya Messaoudi, Ph.D.², Cécile Lesaint, Ph.D.³, François Bissonnette, MD⁴ and Isaac-Jacques Kadoch, MD⁴, ¹Research Associate, Montreal, QC, Canada, ²Research associate, Clinique Ovo, Montreal, QC, Canada, ³Scientific Director, Clinique Ovo, Montreal, QC, Canada, ⁴clinique ovo, Montréal, QC, Canada

P-570 **PROGESTERONE AND ESTRADIOL CONCENTRATIONS IN HUMAN ENDOMETRIUM DURING THE MID-LUTEAL PHASE OF THE MENSTRUAL CYCLE.** Dimitar Parvanov, PhD, Rumiana Ganeva, MSc, Nina Vidolova, MSc, Poly Penkova, MD, Teodora Tihomirova, MD and Georgi Stamenov Stamenov, MD/PhD, Nadezhda Women's Health Hospital, Sofia, Bulgaria

P-571 **LIPID PROFILING OF PERI-IMPLANTATION ENDOMETRIUM IN PATIENTS WITH PREMATURE PROGESTERONE RISE IN LATE FOLLICULAR PHASE.** Jingjie Li, M.D.¹, Pan Chen, PhD² and Xiaoyan Liang, M.D.¹,



POSTER PRESENTATIONS AND ABSTRACTS

- P-572 EFFECT OF ESTRACE ON PREGNANCY RATES FOR WOMEN WITH THIN ENDOMETRIAL LINING UNDERGOING INTRAUTERINE INSEMINATION.** Jasmyrn K Johal, MD, MSc, Sara J Vaughn, MD and Lusine Aghajanova, MD PhD, Stanford University School of Medicine, Stanford, CA

- P-576 REGIONAL DIFFERENCE OF METAL LEVELS IN FOLLICULAR FLUID AND SERUM AMH LEVEL BETWEEN INFERTILE WOMEN FROM EASTERN CHINA AND SOUTHERN CHINA.** Jinqun Xu, MD¹, Yanyun Ying, B.S.Med², Jianpeng Chen, MD³, Dan Li, MD³ and Dan Zhang, MD, PhD², ¹Key Laboratory of Reproductive Genetics (Ministry of Education) and Department of Reproductive Endocrinology, Hangzhou, Zhejiang, China, ²Women's Hospital, Zhejiang University School of Medicine, Hangzhou, China, ³Key Laboratory of Reproductive Genetics (Ministry of Education) and Department of Reproductive Endocrinology, Hangzhou, China

ENVIRONMENT AND REPRODUCTION

- P-573 ACUTE EXPOSURE TO UNHEALTHY AIR QUALITY DURING THE 2018 CAMP FIRE WAS NOT ASSOCIATED WITH ADVERSE LABORATORY OUTCOMES IN PATIENTS WHO UNDERWENT ASSISTED REPRODUCTION TREATMENT.** Amy Wijekoon, MD¹, Mitchell P Rosen, MD, HCLD², Salustiano Ribeiro, MSc³, Phil Marsh, BS⁴, Marcelle I Cedars, MD⁴ and Thalia R Segal, MD⁴, ¹University of California, San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California - San Francisco, San Francisco, CA, ⁴University of California San Francisco, San Francisco, CA

- P-577 CIGARETTE SMOKE-INDUCED OXIDATIVE STRESS ALTERS DNA METHYLATION PATTERNS IN SPERM AND NEUROLOGICAL GENE EXPRESSION PATTERNS IN OFFSPRING.** Patrick J Murphy, PhD¹, Jingtao Guo, PhD², Timothy G Jenkins, PhD³, John R Hoidal, MD⁴, Thomas Huecksteadt, BS⁴, James Hotaling, MD³, Douglas T Carrell, PhD³, Bradley R Cairns, PhD⁵ and Kenneth I Aston, PhD³, ¹University of Rochester Medical Center, Department of Biomedical Genetics, Rochester, NY, ²University of Utah School of Medicine, Andrology and IVF Laboratories, Salt Lake City, UT, ³University of Utah School of Medicine Andrology and IVF Laboratories, Salt Lake City, UT, ⁴University of Utah School of Medicine, Department of Internal Medicine, Salt Lake City, UT, ⁵Howard Hughes Medical Institute, Department of Oncological Sciences and Huntsman Cancer Institute, University of Utah School of Medicine, Salt Lake City, UT

- P-574 EFFECT OF GENISTEIN AND DAIDZEIN LEVELS ON OVARIAN RESPONSE AND EMBRYO QUALITY IN PGT-A CYCLES.** Lucia Marin, MSc¹, Inmaculada Campos-Galindo, PhD¹, Francisco Dominguez, Ph.D.², M^a José de los Santos, PhD³, Carmen Vidal, M.D., Ph.D.³, Amparo Mercader, PhD³, Carlos Simon, MD, PhD⁴ and Carmen Rubio, PhD⁵, ¹Igenomix, Valencia, Spain, ²IVI Foundation - ISSLaFe Biomedical Research Institute, Valencia, Spain, ³IVIRMA Valencia, Valencia, Spain, ⁴University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain, ⁵Igenomix Spain, Paterna (Valencia), Spain

- P-578 AMBIENT TEMPERATURE IN THE WEEK PRIOR TO DELIVERY AND RISK FOR STILLBIRTH.** Pauline Mendola, PhD¹, Jenna Kanner, BS², Andrew D Williams, PhD², Sandie Ha, PhD³, Carrie J Nobles, PhD² and Marion Ouidir, PhD², ¹NICHD, Bethesda, MD, ²National Institutes of Child Health and Human Development, Bethesda, MD, ³University of California Merced, Merced, CA

- P-575 THE ASSOCIATION BETWEEN SEASON AT CYCLE START AND CLINICAL PREGNANCY FOLLOWING FRESH EMBRYO TRANSFER.** Leslie V. Farland, Sc.D.¹, Katharine Corriea, PhD², Stacey A Missmer, Sc.D.³ and Catherine Racowsky, PhD⁴, ¹University of Arizona, Tucson, AZ, ²Amherst College, Amherst, MA, ³Michigan State and Harvard T.H. Chan SPH, Grand Rapids, MI, ⁴Brigham & Women's Hospital, Boston, MA

- P-579 AMBIENT TEMPERATURE AND HUMIDITY DURING KEY PHASES OF THE MENSTRUAL CYCLE AND REPRODUCTIVE OUTCOMES: DIFFERENCES BY SEASON AND LOW-DOSE**



POSTER PRESENTATIONS AND ABSTRACTS

ASPIRIN. Carrie J Nobles, PhD¹, Pauline Mendola, PhD², Robert M Silver, MD³, Keewan Kim, PhD¹, Sunni L Mumford, PhD⁴, Lindsey A Sjaarda, PhD⁵, Neil J Perkins, PhD¹ and Enrique F Schisterman, PhD¹, ¹NICHD, Bethesda, MD, ²National Institutes of Child Health and Human Development, Bethesda, MD, ³University of Utah, Salt Lake City, UT, ⁴National Institute of Child Health and Human Development, Bethesda, MD, ⁵Epidemiology Branch, DIPHR, NICHD, NIH, Bethesda, MD

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Matson, PhD² and Masoud Afnan, MD¹, ¹Tianjin United Family Hospital, Tianjin, China, ²Edith Cowan University, Joondalup, WA, Australia

SEASONAL ENVIRONMENTAL CONTAMINANTS APPEAR TO INFLUENCE GAMETE PRODUCTION AND PREGNANCY OUTCOME FOLLOWING ART.

Lindsay L Penrose, PhD¹, Christopher B. Ellen, B.S.², Frances K. Hanson, M.S.¹, Khaliq Ahmad, PhD¹, Jaou-Chen Huang, MD³ and Samuel D Prien, PhD¹, ¹Texas Tech University Health Sciences Center, Lubbock, TX, ²Texas Tech University, Lubbock, TX, ³Texas Tech University Health Science Center - Lubbock, Lubbock, TX

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THE USE OF PRESCRIPTION DRUGS AMONGST MEN AND WOMEN UNDERGOING ASSISTED REPRODUCTIVE TECHNOLOGY (ART) PROCEDURES.

Edmond WM Rostand, Medical Student¹, Suhair Ibrahim, MBBS MRCOG¹, Abigail Sharpe, MBBS, MRes¹, Mariano Mascarenhas, MS (OG), MRCOG, DNB (OG), Post-doctoral fellow in reproductive medicine² and Harish M Bhandari, MBBS MD MRCOG², ¹School of Medicine, University of Leeds, Leeds, United Kingdom, ²Leeds Fertility, Seacroft Hospital, Leeds, United Kingdom

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DIETARY CADMIUM INTAKE AND FECUNDABILITY IN A NORTH AMERICAN PRECONCEPTION COHORT STUDY.

Tommaso Filippini, M.D.¹, Sydney K Willis, M.P.H.², Amelia K Wesselink, Ph.D.², Elizabeth E Hatch, Ph.D.², Kenneth J Rothman, Dr.P.H.³, Marco Vinceti, M.D., Ph.D.¹ and Lauren A Wise, Sc.D.², ¹Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Modena, Italy, ²Boston University School of Public Health, Boston, MA, ³Boston, MA

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ACCURACY OF SELF-REPORTED MENSTRUAL CYCLE CHARACTERISTICS AND INFERTILITY IN A COHORT HIGHLY EXPOSED TO ENDOCRINE-DISRUPTING COMPOUNDS (EDCs).

Victoria S Jiang, MD¹, Sarah W. Curtis, BS², Sabrina A. Gerkowicz, MD¹, Jessica B Spencer, MD, MSc¹, Metrecia L. Terrell, MSPH³, Michael F. Neblett II, MD¹, Michele Marcus, PhD³ and Alicia K. Smith, PhD¹, ¹Emory University School of Medicine, Department of Gynecology and Obstetrics, Atlanta, GA,

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PROXIMITY TO NEAREST MAJOR ROAD AND FECUNDABILITY IN AN HISTORICAL COHORT.

Nina Hatch, MPH, MEM¹, Nicole Cardello Deziel, PhD², D. Robert McConaughy, PhD³, Donna D Baird, Ph.D.⁴, Allen J Wilcox, MD, PhD⁴, Clarice R Weinberg, PhD⁴ and Anne Marie Jukic, PhD⁴, ¹Business for Social Responsibility, New York, NY, ²Yale School of Public Health, New Haven, CT, ³Westat, Durham, NC, ⁴National Institute of Environmental Health Sciences, Durham, NC

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WOMEN'S KNOWLEDGE ABOUT THE IMPACT OF FEMALE AND MALE AGE, WEIGHT, AND SMOKING ON FERTILITY: RESULTS FROM A NATIONAL SURVEY.

Amber K Worthington, PhD¹, Erin E. Burke, PhD² and Carly Leahy, BA², ¹Penn State University, University Park, PA, ²Modern Fertility, San Francisco, CA

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THE DEGRADATION OF VITAMIN D ACROSS TIME: AN ISSUE LEADING TO UNRELIABLE RESULTS IN REPRODUCTIVE RESEARCH.

Evelin E. Lara-Molina, MD¹, Jason M Fransiak, MD², Almudena Devesa-Peiro, MSc³, Marina Lopez-Noguerol, PhD⁴, Mireia Florensa, MSc¹, Marta Martin, MSc¹, Agustin Ballesteros, PhD¹, Antonio Pellicer, MD, PhD⁵ and Patricia Diaz-Gimeno, PhD³, ¹IVI RMA Barcelona, Barcelona, Spain, ²IVI-RMA New Jersey, Basking Ridge, NJ, ³IVI Foundation IVIRMA Global, Biomedical Research Institute La Fe, Valencia, Spain, ⁴Health Research Institute La Fe, Valencia, Spain, ⁵IVIRMA ROMA, Roma, Italy

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IMPACT OF AMBIENT TOTAL VOLATILE ORGANIC COMPOUND (TVOC) DURING IN VITRO FERTILIZATION (IVF) LABORATORY PROCEDURES UPON SUBSEQUENT EMBRYO IMPLANTATION: A RETROSPECTIVE STUDY.

Yanhe Liu, PhD¹, Lie Mang, MSc¹, Xiaoling Wang, MSc¹, Zhang Li, PhD¹, Yuying Jiang, MD¹, Xue Yan, MD¹, Chunyan Wen, MD¹, Phillip



POSTER PRESENTATIONS AND ABSTRACTS

²Laney Graduate School, Genetics and Molecular Biology Program, Atlanta, GA,
³Rollins School of Public Health, Department of Epidemiology, Atlanta, GA

P-588 IMPACT OF NANOPARTICLES ON MOTILITY OF HUMAN SPERMATOZOA. Hyoeun Kang, MS¹, Hyojeong Kwon, MS¹, Boyoung Jeon, Bs¹, EunJi Lee, MS¹, TaiEun Shin, MS¹, Jung-Jae Ko, Ph.D.², Dae Keun Kim, M.D, Ph.D.³, Wojciech Chrzanowski, Ph.D.⁴ and Jae Ho Lee, PhD⁵, ¹CHA Fertility Center in Seoul, Seoul, Korea, Republic of (South), ²Department of Biomedical Science, CHA University, Seoul, Korea, Republic of (South), ³CHA Fertility Center Seoul Station, Urology, Seoul, Korea, Republic of (South), ⁴Sydney Nano Institute, Sydney Pharmacy School, The University of Sydney, Sydney, NSW, Australia, ⁵CHA University Biomedical Science, Seoul, Korea, Republic of (South)

P-589 THE EFFECT OF CURRENT AND PRIOR SMOKING, ALCOHOL CONSUMPTION, AND DRUG ABUSE ON IVF OUTCOMES. Navid Esfandiari, PhD¹, Dennis Borja Dela Cruz, BSc², Sarah Gibson, BA³, Jennifer A Blaiklock, BSc⁴ and Michael DeSarno, MS⁵, ¹Dartmouth Hitchcock Medical Center, Lebanon, NH, ²DHMC, Lebanon, NH, ³Dartmouth-Hitchcock Med. Ctr, Lebanon, NH, ⁴Dartmouth-Hitchcock Medical Center, Lebanon, NH, ⁵University of Vermont, Burlington, VT

P-590 BISPHENOL A INDUCES INSULIN RESISTANCE IN SKELETAL MUSCLE BY DOWN-REGULATING THE EXPRESSION OF IRS1 THROUGH ESTROGEN RECEPTOR. Zhanghong Ke, Doctor¹ and Beihong Zheng, bachelor², ¹Fujian Provincial Maternity and Children's Hospital, Affiliated Hospital of Fujian Medical University, Fuzhou, China, ²Fujian Provincial Maternity and Children's Hospital, Fuzhou, China

FIBROIDS

P-591 IMPROVEMENT IN HEALTH-RELATED QUALITY OF LIFE (HRQoL) IN WOMEN WITH UTERINE FIBROIDS (UF) TREATED WITH VILAPRISAN (VPR): A SUMMARY OF RESULTS FROM ASTEROID 1 AND 2. Claudia Haberland, PhD, MSc, Kathrin Petersdorf, MD, Uwe Mellinger, Dipl.-Math, Christoph Gerlinger, PhD, Linda D Bradley, MD, Kristina Gemzell-Danielsson, MD, PhD, Sukhbir Sony Singh, MD and Christian Seitz, MD, Bayer AG, Berlin, Germany

P-592 VALIDATION OF A MENSTRUAL PICTOGRAM AND A DAILY BLEEDING DIARY AS ALTERNATIVES TO THE ALKALINE HEMATIN (AH) METHOD FOR ASSESSMENT OF EFFICACY OF TREATMENTS FOR UTERINE FIBROIDS (UF) IN CLINICAL STUDIES. Claudia Haberland, PhD, MSc, Anna Filonenko, PhD, Christian Seitz, MD, Matthias Börner, Dr, Christoph Gerlinger, PhD, Helen Ann Doll, DPhil and Dorothea Wessiepe, MSc, Bayer AG, Berlin, Germany

P-593 PHENOME-WIDE ASSOCIATION STUDY OF UTERINE FIBROIDS USING A LARGE MULTI-RACIAL CLINICAL POPULATION OF WOMEN. Sarah H. Jones, B.S., M.P.H., Brian S. Mautz, M.S., Ph.D., Eric S. Torstenson, B.S., Jacklyn N. Hellwege, Ph.D., Todd L. Edwards, M.S., Ph.D. and Digna R. Velez Edwards, M.S., Ph.D., Vanderbilt University Medical Center, Nashville, TN

P-594 PATIENT-REPORTED OUTCOMES OF A PHASE 1 CLINICAL TRIAL OF INJECTABLE COLLAGENASE CLOSTRIDIUM HISTOLYTICUM (EN3835) FOR TREATMENT OF UTERINE FIBROIDS. Bhuchitra Singh, M.D., MPH, MS¹, Irene Trueheart, RN, BSN, MA¹, Holly Sims, RN, BSN¹, Jean-Marie Soma, MS², Rosina Dixon, M.D.², Phyllis Leppert, M.D., PhD³, Gayane Yenokyan, PhD⁴ and James Segars, MD⁵, ¹Johns Hopkins School of Medicine, Baltimore, MD, ²BioSpecifics Technologies Corporation, Lynbrook, NY, ³Duke Medicine, Durham, NC, ⁴Biostatistics Center, Johns Hopkins School of Public Health, Baltimore, MD, ⁵Johns Hopkins University, School of Medicine, Baltimore, MD

P-595 MEASURING PATIENT-REPORTED OUTCOMES IN WOMEN WITH HEAVY MENSTRUAL BLEEDING ASSOCIATED WITH UTERINE FIBROIDS: THE BLEEDING AND PELVIC DISCOMFORT SCALE. Juliet Li, PhD¹, Jennifer B Kang, MS, MPH¹, Elke Hunsche, PhD² and Stacie Hudgens, MA³, ¹Myovant Sciences, Inc., Brisbane, CA, ²Myovant Sciences GmbH, Basel, Switzerland, ³Clinical Outcomes Solutions, Tucson, AZ

P-596 TO STUDY THE EFFECT OF ULIPRISTAL ACETATE (UPA) TREATMENT IN INFERTILE PATIENTS WITH SINGLE TYPE 2-3 FIGO MYOMAS UNDERGOING IVF. Simone Ferrero, MD, PhD¹, Carolina Scala, MD², Fabio Barra, MD¹ and Umberto Leone Roberti Maggiore, MD, PhD³, ¹DINOGMI,



POSTER PRESENTATIONS AND ABSTRACTS

University of Genova, Genova, Italy, ²Istituto G. Gaslini, Genova, Italy, ³Department of Gynecologic Oncology, IRCCS National Cancer Institute, Milan, Italy

- P-597 THE IMPACT OF ISOLATED NON-CAVITY DISTORTING INTRAMURAL FIBROIDS ON PREGNANCY OUTCOMES IN IN VITRO FERTILIZATION CYCLES: A SYSTEMATIC REVIEW AND META-ANALYSIS.** Kiran Rikhranj, M.D.¹, Justin Tan, MD, MPH¹, Omur Taskin, MD¹, Arianne Y K Albert, PhD², Catherine Allaire, M.D., FRCSC³, Paul Yong, M.D.¹ and Mohamed Ali Bedaiwy, M.D., Ph.D.⁴, ¹University of British Columbia, Vancouver, BC, Canada, ²Women's Health Research Institute, Vancouver, BC, Canada, ³UBC, Vancouver, BC, Canada, ⁴University of British Columbia, Department of Obstetrics and Gynecology, Vancouver, BC, Canada

- P-598 RISK FACTORS FOR COEXISTENT LEIOMYOMA AND ADENOMYOSIS COMPARED TO COEXISTENT LEIOMYOMA AND ENDOMETRIOSIS IN PATIENTS WITH SYMPTOMATIC LEIOMYOMA REQUIRING MYOMECTOMY.** Mamta Mamik, MD¹, Faraj Touchan, MD¹, Nilofar Kazi, BS, Vanessa Sarfoh, MD MPH³, Leah Haworth, BS, Louise Van Der Does, PhD⁴, Natalya Danilyants, MD⁵ and Paul Mackoul, MD¹, ¹Center for Modern Surgery, Montclair, NJ, ²Center for Innovative Gyn Care, Rockville, MD, ³The Center for Innovative GYN Care, Rockville, MD, ⁴Center for Innovative GYN Care, Rockville, MD

- P-599 IMPACT OF NON-CAVITY DISTORTING INTRAMURAL MYOMAS ON PREGNANCY OUTCOMES IN EUPLOID FROZEN EMBRYO TRANSFER CYCLES & DONOR EGG RECIPIENTS: A PROSPECTIVE STUDY.** Robert Setton, MD¹, Joanna Gao, BS², Lilli D Zimmerman, MD¹, Zev Rosenwaks, M.D.¹ and Steven Spandorfer, M.D.¹, ¹The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ²Weill Cornell Medicine, New York, NY

FIBROIDS - BASIC

- P-600 EFFECT OF SIMVASTATIN ON INTEGRIN- β 1 AND ITS DOWNSTREAM MEDIATORS IN HUMAN LEIOMYOMA CELLS.** Sadia Afrin,

PhD, Md Soriful Islam, PhD, Szu-Chi Su, MS and Mostafa A Borahay, MD, PhD, Johns Hopkins University, School of Medicine, Baltimore, MD

- P-601 SIMVASTATIN INHIBITS RhoA ACTIVATION, COLLAGEN EXPRESSION AND GEL CONTRACTION IN HUMAN LEIOMYOMA CELLS.** Sadia Afrin, PhD and Mostafa A Borahay, MD, PhD, Johns Hopkins University, School of Medicine, Baltimore, MD

- P-602 EXPRESSIONS OF VASCULAR ENDOTHELIAL GROWTH FACTOR AND ANGIOPOIETIN-1 IN MED12 MUTATED AND WILD-TYPE UTERINE LEIOMYOMAS.** Ryoko Asano, MD, PhD¹, Mikiko Asai-Sato, MD, PhD², Taichi Mizushima, MD, PhD¹, Koichi Nagai, MD¹, Yohei Miyagi, MD, PhD³ and Etsuko Miyagi, MD, PhD¹, ¹Yokohama City University, Yokohama, Japan, ²Nihon University Itabashi hospital, Department of Obstetrics and Gynecology, Tokyo, Japan, ³Kanagawa Cancer Center Research Institute, Molecular Pathology and Genetics Division, Yokohama, Japan

- P-603 MULTI-OMIC ANALYSIS OF UTERINE LEIOMYOMAS FROM HEREDITARY LEIOMYOMATOSIS AND RENAL CELL CANCER PATIENTS.** Thomas Conrads, PhD¹, Christopher Tarney, MD², Nicholas Bateman, PhD³, Anthony R Soltis, PhD⁴, Brian L Hood, PhD², Clifton L Dalgard, PhD⁴, Matthew Wilkerson, PhD⁴, Kathleen M Darcy, PhD², Yovanni Casablanca, MD², Ayman Al-Hendy, MD PhD⁵, James Segars, MD⁶ and George L. Maxwell, MD⁷, ¹Inova Schar Cancer Institute, Annandale, VA, ²Gynecologic Cancer Center of Excellence, Murtha Cancer Center Research Program, Uniformed Services University of the Health Science, Henry M Jackson FDN, Bethesda, MD, ³Gynecologic Cancer Center of Excellence, Murtha Cancer Center Research Program, Uniformed Services University of the Health Science, Henry M Jackson FDN, Annandale, VA, ⁴The American Genome Center, Uniformed Services University, Bethesda, MD, ⁵University of Illinois at Chicago, Chicago, IL, ⁶Johns Hopkins University, School of Medicine, Baltimore, MD, ⁷Department of Obstetrics and Gynecology, Inova Fairfax Hospital, Falls Church, VA



POSTER PRESENTATIONS AND ABSTRACTS

P-604 REPROGRAMMING OF ESTROGEN SIGNALING BY MLL1 LINKS DEVELOPMENTAL EXPOSURE TO THE RISK OF UTERINE FIBROIDS. Mohamed Ali, B.Pharm, M.Sc¹, Ayman Al-Hendy, MD PhD² and Qiwei Yang, PhD³, ¹University of Illinois at Chicago, Chicago, IL, ²University of Illinois College of Medicine, Chicago, IL, ³University of Illinois at Chicago (UIC), Chicago, IL

P-605 SINGLE CELL RNASEQ ANALYSES OF UTERINE FIBROIDS AND FIBROID-FREE MYOMETRIA REVEAL PREVIOUSLY UNIDENTIFIED CELL TYPE AND STATE. Wanxin Wang, PhD candidate¹, Aymara Mas, PhD², Javier Monleón, MD³, Stephen Quake, DPhil⁴ and Carlos Simon, MD, PhD⁵, ¹Stanford University, Stanford, CA, ²Igenomix Foundation, Valencia, Spain, ³Servicio de Ginecología, Hospital Universitario y Politécnico La Fe, Valencia, Spain, ⁴Stanford University; Chan Zuckerberg Biohub, Stanford; San Francisco, CA, ⁵University of Valencia; Igenomix Foundation-INCLIVA, Valencia, Spain

P-606 VITAMIN D3 AND ITS ANALOGUE PARICALCITOL REVERSE DNA DAMAGE IN HUMAN UTERINE FIBROID STEM CELLS: MECHANISM FOR POTENTIAL PREVENTIVE THERAPY. Mohamed Ali, B.Pharm, M.Sc¹, Lauren Prusinski Fernung, PhD², Ayman Al-Hendy, MD PhD¹ and Qiwei Yang, PhD¹, ¹University of Illinois at Chicago, Chicago, IL, ²Medical College of Georgia at Augusta University, Augusta, GA

P-607 VERTEPORFIN INHIBITS FIBROSIS, INFLAMMATION AND ANGIOGENESIS RELATED GENES IN UTERINE FIBROID CELLS. Md Soriful Islam, PhD, Jacqueline Yano Maher, MD, MA, Sadia Afrin, PhD, Szu-Chi Su, MS and James Segars, MD, Johns Hopkins University, School of Medicine, Baltimore, MD

P-608 NAV2: A NOVEL NEURAL PROTEIN AND REGULATOR OF THE CYTOSKELETON IS UPREGULATED IN LEIOMYOMA AND MYOMETRIUM. Jasmine Aly, MD¹, Joy L. Britten, M.D.², Minnie Malik, Ph.D.², Toral Parikh, M.D.¹, Justin Pilgrim, M.D.¹, Jacquiel Arismendi, Ph.D.² and William Catherino, M.D., Ph.D.², ¹Program in Reproductive Endocrinology and Gynecology, NICHD, NIH, Bethesda, MD, ²Uniformed Services University of the Health Sciences, Bethesda, MD

P-609 IL6 AND STAT-3 PATHWAY HIGHLIGHT THE DIFFERENCES IN MOLECULAR RESPONSES IN MYOMETRIUM AND UTERINE FIBROIDS. Minnie Malik, Ph.D., Joy L. Britten, M.D. and William Catherino, M.D., Ph.D., Uniformed Services University of the Health Sciences, Bethesda, MD

GENETIC COUNSELING

P-610 OFFERING UNIVERSAL CARRIER SCREENING TO WOMEN OF REPRODUCTIVE AGE SEEKING ROUTINE GYNECOLOGIC CARE. Carleigh B Nesbit, DO, Ivy Wilkinson-Ryan, MD, Elisabeth D Erekson, MD MPH, Valerie H Lacroix, MSc LGC, Devin M Applebee, MS LGC, Amy W Bosco, MS LGC, Catherine C Pollack, BS and Rebecca H Evans, MD, Dartmouth Hitchcock Medical Center, Lebanon, NH

P-611 PATERNAL ADVANCED AGE AND MALE FACTOR ARE INDICATORS FOR PRE-IMPLANTATION GENETIC TESTING IN EGG DONATION CYCLES. Jeimy Yesenia Pedraza, BsC¹, Hugo Sierra, BsC², Yadira Del Carmen Díaz, BsC², Jacqueline Cordero, Bióloga² and Esther López-Bayghen, PhD³, ¹Ingenes Mexico, Mexico City, DF, Mexico, ²Affiliation not provided, ³Centro de Investigación y Estudios Avanzados IPN, México, EM, Mexico

P-612 EXPANDED CARRIER SCREENING FOR RECESSIVELY INHERITED GENETIC DISORDERS: FACTORS IN DECISION-MAKING WHEN ONE INDIVIDUAL IN A COUPLE IS IDENTIFIED AS A CARRIER. Alice J Shapiro, M.D.¹ and Molly M Quinn, MD², ¹David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, ²University of California, Los Angeles, Los Angeles, CA

P-613 AGE BASED COUNSELING FOR WOMEN PLANNING TO UNDERGO IVF WITH PGT-A. Jessica R Kanter, MD¹, Nathanael C Koelper, MPH², Rian Salasin, MSRCs³, Dara S. Berger, PhD³ and Kurt T Barnhart, MD, MSCE⁴, ¹University of Pennsylvania, Philadelphia, PA, ²University of Pennsylvania, Philadelphia, PA, ³University of Pennsylvania Reproductive Endocrinology and Infertility, Philadelphia, PA, ⁴University of Pennsylvania, Perelman School Of Medicine, Philadelphia, PA



POSTER PRESENTATIONS AND ABSTRACTS

P-614 IMPORTANCE OF EXPANDED CARRIER SCREENING IN THE ASHKENAZI JEWISH POPULATION. Shelley N Dolitsky, MD¹, Shama Khan, MPH, MS, LGC¹ and Elena Ashkinadze, MS, LCGC², ¹Robert Wood Johnson School of Medicine, New Brunswick, NJ, ²Rutgers- Robert Wood Johnson Medical School, New Brunswick, NJ

P-615 REPRODUCTIVE ENDOCRINOLOGISTS' UTILIZATION OF GENETIC COUNSELORS AND THEIR SERVICES: IS THERE AN UNMET NEED? Meaghan Dwan, BA¹, Rachel Gannaway, MS¹, Richard S. Lucidi, MD¹ and Ann F. Jewell, MS², ¹Virginia Commonwealth University, Richmond, VA, ²Department of Human and Molecular Genetics, VCU Health, Richmond, VA

P-616 INFORMED CONSENT FOR GENETIC TESTING ON GAMETE DONORS. Pamela Callum, M.S. and Lauren Isley, M.S., L.C.G.C., California Cryobank, Los Angeles, CA

HEALTH DISPARITIES

P-617 DETERMINANTS OF DISPARITIES IN MINIMALLY INVASIVE HYSTERECTOMY. Alicia Y Christy, MD, Veterans Administration, kensington, MD

P-618 ASSOCIATION OF PREGNANCY OUTCOMES WITH AREA DEPRIVATION INDEX. Vinita Alexander, MD¹, Jean-Claire "Mandi" Powe Dillon, MD² and Emily S Jungheim, MD, MSCI², ¹Washington University in St. Louis, St. Louis, MO, ²Washington University School of Medicine, St. Louis, MO

P-619 EXPLORING THE INTERSECTION OF RACE, RELIGION, AND GENDER IN BLACK WOMEN WITH INFERTILITY. Nicolas A. Johnson, B.S. and David A. Grainger, M.D., University of Kansas School of Medicine-Wichita, Wichita, KS

P-620 PROLONGED TIME TO DIAGNOSIS OF PRIMARY OVARIAN INSUFFICIENCY (POI) IN AN URBAN REPRODUCTIVE ENDOCRINOLOGY (RE) CLINIC. Shweta J Bhatt, MD¹, Valerie S O'Besso, BA², Natakí C Douglas, MD, PhD³, Peter McGovern, MD⁴, Jacquelyn Loughlin, MD⁵ and Sara S Morelli, MD, PhD², ¹Rutgers New Jersey Medical School, New York, NY, ²Rutgers New Jersey Medical School, Newark, NJ, ³Associate Professor, Newark, NJ, ⁴University Reproductive Associates, NJ, ⁵Rutgers New Jersey Medical School, Newark, New Jersey, NJ

P-621 IMPACT OF MATERNAL ETHNICITY ON PREGNANCY OUTCOME IN INFERTILE WOMEN WITH POLYCYSTIC OVARIAN SYNDROME. Fabiola D'Ambrosio, MD and Humberto Scoccia, MD, University of Illinois at Chicago, Chicago, IL

IMAGING

P-622 ORAL DICLOFENAC POTASSIUM IS AN EFFECTIVE ANALGESIC DURING HYSTEOSALPINGOGRAPHY. Ahmed M Abbas, MD¹, Mohamed Khalaf, MD¹, Ahmed Ali Abdelaleem, MD¹, Tarek Farghaly, MD¹ and Ayman Shehata Dawood, M.D.², ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Tanta University, Tanta, Egypt

P-623 UTERINE PERISTALSIS DURING IMPLANTATION PERIOD; EXPERIENCE OF 3,672 PATIENTS WITH 3 OR MORE FAIRULE OF EMBRYO TRANSFERS. Hidehiko Matsubayashi, MD¹, Kotaro Kitaya, MD¹, Takumi Takeuchi, MD, PhD², Masakazu Doshida, MD², Kohei Yamaguchi, MD¹ and Tomomoto Ishikawa, MD¹, ¹Reproduction Clinic Osaka, Osaka, Japan, ²Reproduction Clinic Tokyo, Tokyo, Japan

P-624 TRENDS IN EMERGENCY DEPARTMENT UTILIZATION IN WOMEN AGED 18-50 WITH OVARIAN CYSTS (2006-2014). Daniel Miranian, MD¹, Emma Giuliani, MD², Nicole Ulrich, MD² and Erica E Marsh, MD², ¹Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI, ²Reproductive Endocrinology and Infertility, University of Michigan, Ann Arbor, MI

P-625 PREVENTING UNNECESSARY PITUITARY MAGNETIC RESONANCE IMAGING: PROLACTIN TO TESTOSTERONE RATIO PREDICTS PITUITARY ADENOMAS IN MALE PATIENTS WITH MILD HYPERPROLACTINEMIA. Anup B. Shah, MD, MS¹, Bryan Douglas Naelitz, BA¹, Neel Parekh, MD¹, Betul Hatipoglu, MD², Daniel Shoskes, MD¹ and Sarah C. Vij, MD¹, ¹Cleveland Clinic Foundation, Cleveland, OH, ²Cleveland Clinic, Department of Endocrinology, Diabetes and Metabolism, Cleveland, OH



POSTER PRESENTATIONS AND ABSTRACTS

- P-626** **THE UTILITY OF PELVIC ULTRASOUNDS IN ADOLESCENTS PRESENTING TO THE EMERGENCY DEPARTMENT WITH HEAVY MENSTRUAL BLEEDING.** Monica W Rosen, MD, Sarah D Rominski, PhD, MPH, Jenny S George, MD, Victoria L Stoffers, BS, Charlotte M Bourdillon, MPH, Christine M Pennesi, MD, Angela C Weyand, MD and Elisabeth H Quint, MD, University of Michigan, Ann Arbor, MI
- P-627** **ANALYSIS THE CHARACTERISTIC OF CLINICAL MANIFESTATIONS, PATHOLOGY AND IMAGING IN 39 PATIENTS WITH DISORDER OF SEX DEVELOPMENT.** Sijia Wang, M.D., Lanlan Fang, M.D. Ph.D. and Ying-pu Sun, M.D. Ph.D., The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China
- P-628** **THE UTILITY OF REPEAT SALINE INFUSION SONOHYSTEROGRAM (SIS) IN THE INFERTILITY WORKUP.** Andrey V Dolinko, MD¹, Valery A Danilack, PhD, MPH¹, Ruben J Alvero, MD² and Victoria V Snegovskikh, MD¹, ¹Women and Infants Hospital and Warren Alpert Medical School of Brown University, Providence, RI, ²Stanford University, Palo Alto, CA
- P-629** **THE UTERINE MICRO-PERISTALSIS PHENOMENON RELATING TO CLINICAL OUTCOME OF IN VITRO FERTILIZATION AND EMBRYO TRANSFER.** Yunfei Long, PhD¹, Rong Liang, PhD², Jiabin Zhang, PhD³, Fang Fang, MD², Cheng Cheng, MB², Qun Lu, MD² and Jue Zhang, PhD³, ¹College of Engineering, Peking University, Beijing, China, ²Center of Reproductive Medicine, Peking University People's Hospital, Beijing, China, ³Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China

INTRAUTERINE INSEMINATION

- P-630** **ASSESSMENT OF SPERM RETENTION AFTER INTRAUTERINE INSEMINATION (IUI) WITH USE OF CERVICAL DEVICE.** Rebekah Wolak, MD¹, Barry A Ripps, MD², Jake Godwin, BS³ and Guinevere Redick, MD², ¹Eglin Air Force Base Medical Group, Eglin Air Force Base, FL, ²University of Florida, Pensacola, FL, ³Affiliation not provided

- P-631** **A MULTI-CENTRIC, PROSPECTIVE TEST OF CAP-SCORE'S™ ABILITY TO PREDICT A MAN'S PROBABILITY OF GENERATING PREGNANCY.** Jay S Schinfeld, MD, FACOG¹, Randy S Morris, MD², Gianpiero D. Palermo, M.D., Ph.D.³, Zev Rosenwaks, M.D.³, John E Nichols Jr., MD⁴, Fady I Sharara, M.D.⁵, Eric K Seaman, MD⁶, Cristina Cardona, PhD⁷, G Charles Ostermeier, PhD⁷ and Alexander J Travis, VMD, PhD⁸, ¹Abington Reproductive Medicine, Abington, PA, ²IVF1, Naperville, IL, ³The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ⁴Piedmont Reproductive Endocrinology Group, Greenville, SC, ⁵Virginia Center for Reproductive Medicine, Reston, VA, ⁶New Jersey Urology, Short Hills, NJ, ⁷Androvia LifeSciences, Mountainside, NJ, ⁸Cornell University, Ithaca, NY

LGBTQ REPRODUCTIVE ISSUES

- P-632** **QUALITY OF LIFE AFTER FERTILITY PRESERVATION AMONG TRANSGENDER PEOPLE.** Amanda Adeleye, MD¹, Garrett Michael Reid, BS², Yiu Ho Au, B.S.², JAMES F SMITH, M.D.³ and Evelyn Mok-Lin, MD², ¹UCSF REI fellow, San Francisco, CA, ²REI UCSF, Center for Reproductive Health, San Francisco, CA, ³University of California, San Francisco, SAN FRANCISCO, CA
- P-633** **IUD CHOICE IN TRANSGENDER AND GENDER DIVERSE INDIVIDUALS.** Lauren Abern, MD¹, Glen DeGuzman, MD², Jake Cook, BA³, Kristen Kiely, WHNP-BC¹ and Karla Maguire, MD, MPH⁴, ¹Harvard Vanguard Medical Associates, Somerville, MA, ²University of Nevada Las Vegas School of Medicine, Las Vegas, NV, ³Philly FIGHT, Philadelphia, PA, ⁴University of Miami, Miami, FL
- P-634** **FERTILITY PRESERVATION KNOWLEDGE AMONG TRANSGENDER WOMEN: PRELIMINARY FINDINGS FROM THE GEAR STUDY.** Amanda Adeleye, MD¹, Garrett Michael Reid, BS¹, Yiu Ho Au, B.S.¹, JAMES F SMITH, M.D.² and Evelyn Mok-Lin, MD¹, ¹REI UCSF, Center for Reproductive Health, San Francisco, CA, ²University of California, San Francisco, SAN FRANCISCO, CA



POSTER PRESENTATIONS AND ABSTRACTS

P-635 IN VITRO FERTILIZATION (IVF) OUTCOMES IN GAY AND SINGLE WOMEN USING DONOR SPERM. Sara E. Barton, M.D., Sue McCormick, BS, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

P-640 FERTILITY AND INFERTILITY TREATMENT KNOWLEDGE AMONG MEN AGED 18-50 IN THE U.S. Parker H Murray, MS⁴¹ and Rashmi Kudesia, MD², ¹Texas College of Osteopathic Medicine, UNTHSC, Fort Worth, TX, ²CCRM Fertility Houston, Houston, TX

P-641 EFFICACY OF ANTIOXIDANT SUPPLEMENTATION ON CONVENTIONAL AND ADVANCED SPERM FUNCTION TESTS IN PATIENTS WITH IDIOPATHIC MALE INFERTILITY. Mohamed Arafa, MD¹, Ashok Agarwal, PhD², Ahmad Majzoub, MD¹, Kareim Khalafalla, MD¹, Sami Alsaïd, MD¹ and Haitham Elbardsi, MD¹, ¹Hamad Medical Corporation, Doha, Qatar, ²Cleveland Clinic, Cleveland, OH

MALE REPRODUCTION AND UROLOGY

P-636 DELTA-9 THC CAN BE DETECTED AND QUANTIFIED IN THE SEMINAL FLUID OF MEN WHO ARE CHRONIC USERS OF INHALED CANNABIS. Malinda S Lee, MD, MBA, Andrea Lanes, PhD, Elizabeth S Ginsburg, MD and Janis H. Fox, MD, Brigham and Women's Hospital, Boston, MA

P-642 THE FREQUENCY OF PARENTAL CONSANGUINEOUS MARRIAGE AND EFFECT ON CLINICAL PARAMETERS IN MEN WITH IDIOPATHIC NON-OBSTRUCTIVE AZOOSPERMIA. Mustafa E Bakircioglu, MD¹ and Oktay Özman, MD², ¹Istanbul Florence Nightingale Hospital, Istanbul, Turkey, ²Gaziosmanpaşa Taksim Training and Research Hospital, Istanbul, Turkey

P-637 COMPREHENSIVE GENE EXPRESSION ANALYSIS BY RNA SEQUENCING OF TESTICULAR TISSUE EXOSOMES IN AZOOSPERMIC MEN: PREDICTING THE PRESENCE OF SPERM. Joshua Stewart, M.D.¹, Philip Xie, B.S.¹, Alessandra Parrella, M.Sc.¹, David Lyden, M.D., Ph.D.², Zev Rosenwaks, M.D.¹ and Gianpiero D. Palermo, M.D., Ph.D.¹, ¹The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY, ²Weill Cornell Medical College, New York, NY

P-643 VARICOCELE AND TESTICULAR HYPERTHERMIA: INFRARED DIGITAL THERMOGRAPHIC MEASUREMENT OF SCROTAL AND INGUINAL TEMPERATURES AMONG VARICOCELE PATIENTS AND NORMAL CONTROLS. Kareim Khalafalla, MD, Mohamed Arafa, MD, Haitham Elbardsi, MD, Sami Alsaïd, MD, Ahmad Majzoub, MD and Mohammed Mahdi, MD, Hamad Medical Corporation, Doha, Qatar

P-638 AN AGE-BASED NOMOGRAM BASED ON CUT OFF VALUES OF SEMEN ANALYSIS RESULTS, FROM 2010 WHO REFERENCE VALUES FOR SEMEN CHARACTERISTICS. Guy Shrem, M.D.¹, Michael H. Dahan, MD¹, Jacques Balayla, M.D.², Naama Steiner, M.D.³, Alexander Volodarsky-Perel, M.D.², Weon-Young Son, Ph.D.⁴ and Mali Salmon-Divon, Ph.D.⁵, ¹McGill University, Montreal, QC, Canada, ²Affiliation not provided, ³McGill University Health Centre, Montreal, QC, Canada, ⁴Division of Reproductive Endocrinology and Infertility, McGill University Health Care Centre, Montreal, QC, Canada, ⁵Senior Lecturer, Ariel, Israel

P-644 RE-EXAMINING THE INCIDENCE OF KARYOTYPIC ABNORMALITIES AND Y CHROMOSOME MICRODELETIONS IN MALES WITH AZOOSPERMIA OR SEVERE OLIGOSPERMIA. Olivia Carpinello, MD¹, Jessica A Marinaro, MD², Micah J Hill, DO³, Alan H DeCherney, MD⁴, Kate Devine, MD⁵ and Rebecca Chason, MD⁶, ¹NIH, Bethesda, MD, ²MedStar Georgetown University Hospital, Washington, DC, ³National Institute of Child Health and Human Development, NIH, Bethesda, MD, ⁴NIH-NICHD, Bethesda, MD, ⁵Shady Grove Fertility, Washington D.C., DC, ⁶Shady Grove Fertility, Annapolis, MD

P-639 YO® HOME SPERM TEST'S MOTILE SPERM CONCENTRATION AND YO SCORE™ CORRELATES WITH AUTOMATED SEMEN ANALYSIS™ RESULTS. Stan Honig, MD¹, Lev Rabinovitch, PhD² and Natan Bar-Chama, MD³, ¹Yale University, New Haven, CT, ²Medical Electronic Systems, Caesarea Industrial Park, Israel, ³Icahn School of Medicine at Mount Sinai, New York, NY

P-645 IMPACT OF COMMERCIAL SPERM SUPPLEMENTATION ON SEMINAL PARAMETERS. Megan Goodwin, MS, Kaci D Rogers, MS



POSTER PRESENTATIONS AND ABSTRACTS

and Fady I Sharara, M.D., Virginia Center for Reproductive Medicine, Reston, VA

P-646 REPEAT SEMEN ANALYSIS – AN UNNECESSARY DELAY IN UROLOGIC EVALUATION? Lauren Ursillo, MD¹, Arielle S Yeshua, MD², Christine Mullin, M.D.³, Avner Hershtag, M.D.⁴, Weiwei Shan, MS PhD⁵, Baruch Abittan, M.D.⁶, Sarah Girardi, MD² and Randi H. Goldman, M.D.⁴, ¹NYU Winthrop Hospital, Mineola, NY, ²Northwell, Manhasset, NY, ³Northwell Fertility, ⁴Northwell Health Fertility, Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY, ⁵Northwell Health Department of Biostatistics, New Hyde Park, NY, ⁶Northwell Fertility, Manhasset, NY

P-647 LONG TERM SAFETY AND EFFICACY OF CLOMIPHENE CITRATE FOR THE TREATMENT OF MALE HYPOGONADISM. Devang Sharma, MD¹, Sarah C Krzastek, MD², Natasha Abdullah, BA³, Mark I Sultan, BS², G Luke Machen, MD⁴, Jessica L Wenzel, BS⁵, Alex M Ellis, BS², Xizhao Chen, BS², Mehraban Kavoussi, BS², Raymond A Costabile, MD², Ryan P Smith, MD² and Parviz K Kavoussi, MD³, ¹University of Virginia, Charlottesville, VA, ²Affiliation not provided, ³Austin Fertility & Reproductive Medicine/ Westlake IVF, Austin, TX, ⁴Medical College of Wisconsin, Milwaukee, WI, ⁵UT Austin Dell Medical School, Austin, TX

P-648 PATERNAL AGE IS A PREDICTOR OF ELEVATED SPERM DNA FRAGMENTATION IN INFERTILE MEN. Julie Sroga Rios, MD¹, Robert M Coward, MD², Fangbai Sun, MPH³, Heping Zhang, PhD³, Nanette Santoro, M.D.⁴ and Anne Z Steiner, MD, MPH⁵, ¹University of Cincinnati and Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²University of North Carolina, Chapel Hill, NC, ³Yale University School of Public Health, New Haven, CT, ⁴University of Colorado Denver, Aurora, CO, ⁵Duke University Medical Center, Durham, NC

P-649 ANTIOXIDANT COMBINATION THERAPY: A NEW HOPE FOR OLIGOASTHENOSPERMIC PATIENTS. Kareim Khalafalla, MD¹, Mohamed Arafa, MD¹, Ahmad Majzoub, MD¹, Haitham Elbardisi, MD¹, Sami Alsaïd, MD¹ and Ashok Agarwal, PhD², ¹Hamad Medical Corporation, Doha, Qatar, ²Cleveland Clinic, CLEVELAND, OH

P-650 THE VALUE AND USAGE OF DNA BANKING ON SEMEN DONORS. Lauren Isley, M.S.,

L.C.G.C., Kara Baldwin, M.S. and Pamela Callum, M.S., California Cryobank, Los Angeles, CA

P-651 COMPARISON OF SEMEN QUALITY IN NORTHERNTAIWAN BETWEEN 2017 AND 2001-2010. Shang-Yu Tzeng, Master, Chii-Ruey Tzeng, MD, MPH and Chi-Huang Chen, MD, PhD, Taipei Medical University Hospital, Taipei, Taiwan

P-652 PERSISTENT GENDER GAP AND A TREND TOWARDS SUBSPECIALIZATION: CHARACTERISTICS OF SURGEONS PERFORMING VASECTOMY IN THE UNITED STATES. Joshua A. Halpern, MD, MS¹, Mary Kate Keeter, MPH², Alexander J Tatem, MD³, Katelyn Zumpf, MS², Leah J Welty, PhD², Nelson E. Bennett Jr., MD¹ and Robert E. Brannigan, MD¹, ¹Northwestern University Feinberg School of Medicine, Chicago, IL, ²Northwestern University, Chicago, IL, ³Men's Health Center, Indianapolis, TX

P-653 UTILIZATION OF EJACULATED SPECIMEN AFTER ICSI FAILURE WITH TESTICULAR SPERMATOZOA FROM MEN WITH HIGH DNA FRAGMENTATION. Alessandra Parrella, M.Sc., Derek Keating, B.A., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

P-654 PREDICTIVE BIOMARKER AS MICROBIOMES IN THE SEMINAL PLASMA ASSOCIATED WITH SPERMATOGENESIS STATUS. HyoJeong Kwon, MS¹, Boyoung Jeon, BS¹, Eunji Lee, MS¹, Hyoeun Kang, MS¹, TaiEun Shin, MS¹, Kyu Bum Kwack, Ph.D.², Jung-Jae Ko, Ph.D.², Dae Keun Kim, M.D, Ph.D.¹ and Jae Ho Lee, PhD³, ¹CHA Fertility Center in Seoul, Seoul, Korea, Republic of (South), ²Department of Biomedical Science, CHA University, Seoul, Korea, Republic of (South), ³CHA Fertility Center, Seoul, Korea, Republic of (South)

P-655 SUB-FERTILITY AND ITS PSYCHOLOGICAL IMPACT ON MEN. Pranav Dadhich, MD, Garrett K Berger, PharmD, Peter N Dietrich, MD, Johnathan Doolittle, MD, Abbey Kruper, PsyD and Jay I Sandlow, MD, Medical College of Wisconsin, Milwaukee, WI

P-656 RELATIONSHIP BETWEEN SEMINAL PROSTAGLANDINS ON INTRAUTERINE INSEMINATION PREGNANCY OUTCOMES. Mason Holtel, BS¹, Renee J. Chosed, PhD¹,



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Shawn Zimmerman, PhD, HCLD², Blake Wynia, MD³ and William E. Rouddebush, PhD¹, ¹University of South Carolina School of Medicine Greenville, Greenville, SC, ²Vios Fertility Institute, Swansea, IL, ³Prisma Health-Upstate, Greenville, SC

P-657 THE OVERALL HEALTH STATUS OF INFERTILE MEN IN THE UNITED STATES IS SIMILAR TO THAT OF FERTILE MEN. Jesse Benjamin Persily, BA and Bobby B Najari, MD, MSc, New York University School of Medicine, New York, NY

P-658 AN EVIDENCE-BASED ANALYSIS OF INGREDIENTS IN POPULAR MALE FERTILITY SUPPLEMENTS. Manish Kuchakulla, B.S., Yash Soni, B.S., Premal Patel, MD and Ranjith Ramasamy, M.D, University of Miami Miller School of Medicine, Miami, FL

P-659 ELEVATED BLOOD SUGAR PARAMETERS IN YOUNG INDIAN MEN ATTENDING OUR FERTILITY CLINIC. Madhavi M Panpalia, MS¹, Sujatha Reddy, MD¹, Chitra Ishwar, MD¹, Meenal Khandeparkar, MS¹, Dattatray Naik, MSc¹, Suresh Dhumal, MSc¹, Prashant Makwana, MSc¹ and Fizuza Rajesh Parikh, MD DNB PhD², ¹Jaslok Hospital and Research Centre, Mumbai, India, ²Genexplore Diagnostics and Research Centre Pvt. Ltd., AHMEDABAD, India

P-660 HIV/OTHER STD INFECTIONS AMONG 338,432 INFERTILE POPULATIONS SHOULD RECEIVE MORE ATTENTION IN HUNAN, CHINA, 2012-2018:A CROSS-SECTIONAL STUDY. Gang Liu, PhD¹ and Weina Li, PhD², ¹Institute of Reproduction and Stem Cell Engineering, Central South University, Changsha, China, ²Reproductive and Genetic Hospital of CITIC-Xiangya, Changsha, China

P-661 IMPACT OF BODY WEIGHT ON SEMEN PARAMETERS AND REPRODUCTIVE HORMONES OF MEN WITH IDIOPATHIC INFERTILITY. Sami Alsaid, MD, Kareim Khalafalla, MD, Ahmad Majzoub, MD, Mohamed Arafa, MD and Haitham Elbardsi, MD, Hamad Medical Corporation, Doha, Qatar

P-662 SIGNIFICANT DELAYS IN EVALUATION OF MALE PARTNER AMONGST INFERTILE COUPLES. Adithya Balasubramanian, BA¹, Nannan Thirumavalavan, M.D.², Jenna N Bates, BS¹, Eric K Wang, BA¹, Alan Hsieh, MD¹, Ujval S Pathak, MPH¹, Kelly Payne, B.A.¹, Alexander W Pastuszak,

MD, PhD³ and Larry I. Lipshultz, M.D.¹, ¹Baylor College of Medicine, Houston, TX, ²University Hospitals Urology Institute/ Case Western Reserve University, Cleveland, OH, ³University of Utah School of Medicine, Salt Lake City, UT

P-663 MALE MULTIVITAMIN USE AND SEMEN QUALITY. Sydney K Willis, M.P.H.¹, Elizabeth E Hatch, Ph.D.¹, Greg Sommer, PhD², Michael L Eisenberg, M.D.³, Tanran Wang, MPH¹ and Lauren A Wise, Sc.D.¹, ¹Boston University School of Public Health, Boston, MA, ²Sandstone Diagnostics, Livermore, CA, ³Stanford University, Stanford, CA

P-664 WHAT DO MBA STUDENTS KNOW ABOUT MALE FERTILITY? Lia A. Bernardi, MD¹, Moira A Kyweluk, PhD, MPH², Marissa Luck, MD¹ and Eve C. Feinberg, M.D.¹, ¹Northwestern University, Chicago, IL, ²University of Pennsylvania, Philadelphia, PA

P-665 EFFECT OF MEDICAL COMORBIDITIES OVER SEMINAL PARAMETERS AND SPERM DNA FRAGMENTATION. Cristian R Alvarez Sedo, PhD, Heydy W Uriondo Boudri, MSc., Lourdes Correa Brito, BS, Federico Bleckwedel, BS, Carolina Salazar, MD, Natalia Vic, MD and Carlos Sancho Minano, MD, FERTILIA, TUCUMAN, Argentina

MALE REPRODUCTION AND UROLOGY - BASIC

P-666 ROLE OF LEPTIN AS A PARACRINE FACTOR CRITICAL FOR HUMAN LEYDIG STEM CELL FUNCTION AND DIFFERENTIATION. Himanshu Arora, PhD and Ranjith Ramasamy, M.D, University of Miami Miller School of Medicine, Miami, FL

P-667 IDENTIFICATION OF TWO NOVEL SEMINAL PEPTIDES, WHICH ACT AS NEUTRAL ENDOPEPTIDASE INHIBITORS AND MODULATE SPERM MOTILITY. Alexander Kucherov, MD¹ and Kelvin Davies, PhD², ¹Albert Einstein College of Medicine / Montefiore Medical Center, Hartsdale, NY, ²Albert Einstein College of Medicine, Bronx, NY

P-668 SUBTLE SIGNATURES OF AGING PERSIST OVER TWO GENERATIONS THROUGH THE PATERNAL GERM LINE. Timothy G Jenkins, PhD, Emma James, B.S., Kenneth I Aston, PhD, James Hotaling, MD and Douglas T



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Carrell, PhD, University of Utah School of Medicine Andrology and IVF Laboratories, Salt Lake City, UT

P-669 TO STUDY OF APOPTOTIC GENE EXPRESSION THROUGH HYPOTHALAMUS-PITUITARY-GONADAL AXIS IN. Kamla Shukla Shukla, PhD, All India Institute of Medical Sciences, Jodhpur, India

P-670 FAM9B WAS ASSOCIATED WITH HUMAN SPERMATOGENESIS AND MALE-SPECIFIC STERILITY. Xin-jie Zhuang, Dr. and Ping Liu, prof., Reproductive Medicine Center, Department of Obstetrics and Gynecology, Peking University Third Hospital, Beijing, China

P-671 PSMA5 AND RARRES1, SEMINAL PLASMA PROTEIN MARKERS OF SPERM DNA FRAGMENTATION, ARE NOT ALTERED BY SMOKING. Letícia Kaory Tamashiro, BSc.¹, Paula Intasqui, PhD¹, Ricardo P Bertolla, DVM, PhD² and Mariana Pereira Antoniassi, PhD¹, ¹Sao Paulo Federal University, São Paulo, Brazil, ²Head of Research UNIFESP, SAO PAULO, Brazil

P-672 SINGLE-CELL RNA SEQUENCING REVEALS NOVEL MARKERS OF STEM/PROGENITOR SPERMATOGONIA IN HIGHER PRIMATES. Sarah Munyoki, B.A.¹, Adrienne N Shami, B.S.², Sue Hammoud, Ph.D.² and Kyle E Orwig, Ph.D.¹, ¹University of Pittsburgh School of Medicine, Pittsburgh, PA, ²University of Michigan, Ann Arbor, MI

P-673 IMPACT OF INTERACTION BETWEEN OXIDATIVE STRESS ADDUCTS (OSA) LEVELS AND ACCESSORY CELLS ON SPERM DNA INTEGRITY AND COMPLEMENT REGULATORY PROTEIN. Denis Vaughan, MD, MRCPI¹, Denny Sakkas, PhD² and Edna E Tirado, PhD³, ¹Beth Israel Deaconess Medical Center, Boston, MA, ²Boston IVF, Waltham, MA, ³ReproSource-Quest Diagnostics, Woburn, MA

P-674 DOES THE gp130 ADENINE (A)/THYMINE (T) (rs1900173) GENE POLYMORPHISM AFFECT SEMEN QUALITY OR SPERM DNA DAMAGE? Joao Batista A Oliveira, M.D., Ph.D.¹, Claudia G Petersen, Ph.D.¹, Ana Lucia Mauri, B.Sc.¹, Adriana Renzi, Ph.D.², Laura D Vagnini, B.Sc.², Bruna Petersen, B.Sc.¹, Mariana Mattila, B.Sc.³, Juliana Ricci, R.N.³, Felipe Dieamant, M.D.¹, Ricardo L R Baruffi, M.D.¹ and Jose G Franco Jr., M.D., Ph.D.¹, ¹Center for Human Reproduction Prof. Franco Jr/ Paulista Center

for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ²Paulista Center for Diagnosis, Research and Training, Ribeirao Preto, Brazil, ³Center for Human Reproduction Prof. Franco Jr, Ribeirao Preto, Brazil

P-675 KARYOTYPING SINGLE SPERM: TARGETED NEXT GENERATION SEQUENCING ALLOWS FOR ACCURATE CHROMOSOME COPY NUMBER ANALYSIS OF HAPLOID GENOMES. Diego Marin, M.S.¹, Yiping Zhan, Ph.D.², Richard Thomas Scott Jr., MD¹ and Xin Tao, Ph.D.³, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²The Foundation for Embryonic Competence, Basking Ridge, NJ, ³Foundation for Embryonic Competence, Basking Ridge, NJ

P-676 EFFECT OF OXIDATION-REDUCTION POTENTIAL ON MITOCHONDRIAL MEMBRANE POTENTIAL AND VITALITY OF PHYSIOLOGICALLY NORMAL HUMAN SPERMATOZOA. Manesh Kumar Paner Selvam, PhD¹, Ashok Agarwal, PhD¹, Renata Finelli, PhD¹, Christopher M Douglas, B.A., M.S.¹, Ralf Henkel, PhD², Sajal Gupta, MD¹ and Rakesh Sharma, PhD¹, ¹American Center for Reproductive Medicine, Cleveland Clinic, Cleveland, OH, ²University of the Western Cape, Bellville, South Africa

P-677 MAPPING EVOLUTION OF MAMMALIAN SPERMATOGENESIS VIA HIGH RESOLUTION TRANSCRIPTOMICS. Adrienne N Shami, B.S.¹, Sarah Munyoki, B.A.², Xianing Zheng, B.S.¹, Jun Z Li, Ph.D.¹, Kyle E Orwig, Ph.D.² and Sue Hammoud, Ph.D.¹, ¹University of Michigan, Ann Arbor, MI, ²University of Pittsburgh School of Medicine, Pittsburgh, PA

P-678 WITHDRAWN

P-679 COMPARATIVE PROTEOMIC ANALYSIS REVEALS DIFFERENTIAL REGULATION OF REDOX HOMESTASIS AND PURTUBED OXIDATIVE PHOSHORYLATION PATHWAY IN UNILATERAL COMPARED TO BILATERAL VARICOCELE CONDITION. Manesh Kumar Paner Selvam, PhD¹, Ashok Agarwal, PhD¹ and Luna Samanta, PhD², ¹American Center for Reproductive Medicine, Cleveland Clinic, Cleveland, OH, ²Redox Biology Laboratory, Department of Zoology, Ravenshaw University, Cuttack, India

P-680 S100A9, AN INFLAMMATORY AND IMMUNE PROTEIN, IS INCREASED IN SEMEN OF SMOKERS. Mariana Pereira Antoniassi, PhD¹, Larissa



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Berloffa Belardin, BSc, MSc¹, Paula Intasqui, PhD¹, Mariana Camargo, PhD² and Ricardo P Bertolla, DVM, PhD³, ¹Sao Paulo Federal University, São Paulo, Brazil, ²Universidade Federal de São Paulo, São Paulo, Brazil, ³Head of Research UNIFESP, SAO PAULO, Brazil

- P-681 EXOME SEQUENCING IDENTIFYING ADDITIONAL QRIH2 MUTATIONS IN OLIGO-ASTHENO-TERATOZOOSPERMIA AND ASTHENOSPERMIA PATIENTS.** Wenming Xu, Ph.D and Xiao Liang Li, Ms., American Society of Human Genetics, Chengdu, China

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James Segars, MD³, ¹Johns Hopkins School of Medicine, Baltimore, MD, ²University of Mississippi Medical Center, Jackson, MS, ³Johns Hopkins University, School of Medicine, Baltimore, MD

A COMPREHENSIVE EXAMINATION OF INFERTILITY STIGMA AMONG FERTILE AND INFERTILE WOMEN IN THE UNITED STATES.

Amber K Worthington, PhD¹, Erin E. Burke, PhD² and Carly Leahy, BA², ¹Penn State University, University Park, PA, ²Modern Fertility, San Francisco, CA

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THE PSYCHOLOGICAL IMPACT OF SURROGACY ON THE FAMILIES OF GESTATIONAL CARRIERS: IMPLICATIONS FOR CLINICAL PRACTICE.

Mary P. Riddle, Ph.D., Stephanie C. Michaud, B.S., Quenell D. Redden, B.S., Olivia R. Pozza, B.A. and Brendan L Scanlan, B.S., The Pennsylvania State University, University Park, PA

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THE IMPACT OF THE FERTISTRONG APP ON ANXIETY AND DEPRESSION IN MEN.

Alice D. Domar, Ph.D.¹, Lauren Jasulaitis, CRC², Sue Jasulaitis, M.S.N., R.N.³, Elizabeth A Grill, PsyD⁴ and Meike L Uhler, M.D.⁵, ¹Boston IVF, Waltham, MA, ²Affiliation not provided, ³Fertility Centers of Illinois, Glenview, IL, ⁴Weill Cornell Medical Center, Rye Brook, NY, ⁵Fertility Centers of Illinois, Chicago, IL

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MOTIVATING FACTORS AND QUALITY OF LIFE FOR MALE PARTNERS OF INFERTILE COUPLES.

Rachel Blair Danis, MD¹, Semara A Thomas, MD¹, Richard J Paulson, MD, MS¹, Kristin Bendikson, M.D.¹, Jacqueline Ho, MD MS¹, Mary Katherine Samplaski, MD² and Rachel S Mandelbaum, MD¹, ¹University of Southern California, Los Angeles, CA, ²Keck School of Medicine, University of Southern California, Los Angeles, CA

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KNOWLEDGE, ATTITUDES AND CONCERNS TOWARDS ELECTIVE SINGLE EMBRYO TRANSFER (ESET) IN COUPLES UNDERGOING FRESH/ FROZEN EMBRYO TRANSFER CYCLES IN ASIAN POPULATION.

Hema Vaitianathan, MD MRCOG¹, Gopinath P M, MD, DGO, FMMC, FICS, FICOG, MBA(HSM)² and Gayathri Devi S S, MD(OG), FRM³, ¹Postdoctoral Fellow, Chennai, India, ²Director & Senior Consultant, Chennai, India, ³Consultant - Reproductive Medicine, Chennai, India

MENTAL HEALTH

- P-682 ASSOCIATION OF MENTAL HEALTH DIAGNOSES AND UTERINE ENDOMETRIAL THICKNESS IN WOMEN UNDERGOING IN-VITRO FERTILIZATION.** Anna K Knight, PhD¹, Heather S Hipp, MD¹, Laurie McKenzie, M.D.², Jessica B Spencer, MD, MSc³ and Sabrina A. Gerkowicz, MD³, ¹Emory University School of Medicine, Atlanta, GA, ²Baylor College of Medicine, Houston, TX, ³Emory University School of Medicine, Department of Gynecology and Obstetrics, Atlanta, GA

- P-683 PATH TO PREGNANCY: A MULTINATIONAL SURVEY OF WOMEN'S EXPERIENCES AND EXPECTATIONS WHEN PLANNING PREGNANCY.** Sarah Johnson, PhD¹ and Sarah Weddell, BSc², ¹SPD Development Company Ltd, Bedford, United Kingdom, ²SPD Development Company, Bedford, United Kingdom

- P-684 PREIMPLANTATION GENETIC TESTING: PSYCHOMETRIC PROPERTIES OF QUESTIONNAIRES DESIGNED TO ASSESS PATIENT DECISIONAL DISTRESS AND DECISIONAL UNCERTAINTY.** Lisa M Pastore, PhD¹, Marci Lobel, PhD², Lisa R Rubin, PhD³, Jennifer Nicoloso-SantaBarbara, M.A., M.S.W.⁴ and James Stelling, MD⁵, ¹Stony Brook Medicine, Stony Brook, NY, ²Stony Brook University, Stony Brook, NY, ³The New School, New York, NY, ⁴Affiliation not provided, ⁵Stony brook Medicine- Island Fertility, Stony Brook, NY

- P-685 IS A DIAGNOSIS OF UTERINE FIBROIDS WORSE THAN A DIAGNOSIS OF CONGESTIVE HEART FAILURE OR CHRONIC LUNG DISEASE?** Bhuchitra Singh, M.D., MPH, MS¹, Martha C Thomas, M.D.², Holly Sims, RN, BSN¹ and



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P-691 LIFESTYLE RELATED FACTORS ASSOCIATED WITH PREGNANCY OUTCOME AFTER IN VITRO FERTILISATION-EMBRYO TRANSFER CYCLES.

Hema Vaithianathan, MD MRCOG¹, Gopinath P M, MD, DGO, FMMC, FICS, FICOG, MBA(HSM)² and Gayathri Devi S S, MD(OG), FRM³, ¹Postdoctoral Fellow, Chennai, India, ²Director & Senior Consultant, Chennai, India, ³Consultant - Reproductive Medicine, Chennai, India

P-692 FAMILY-BUILDING AFTER CANCER: UNDERSTANDING PATIENT SUPPORT NEEDS, PREFERENCES FOR SUPPORT, AND RECOMMENDATIONS FOR CARE.

Catherine Benedict, PhD¹, Alexandria Louise Hahn, MSc², Alyssa McCready, LMSW², Michael A Diefenbach, PhD² and Jennifer S Ford, PhD³, ¹Stanford University School of Medicine, Palo Alto, CA, ²Feinstein Institute for Medical Research, Manhasset, NY, ³Hunter College and The Graduate Center, City University of New York (CUNY), New York, NY

P-693 INSIGHTS FROM WOMEN WITH FERTILITY CONCERNS ABOUT THEIR CHOICES WHEN ATTEMPTING TO IMPROVE THEIR ABILITY TO CONCEIVE.

Alice D. Domar, Ph.D.¹, Elizabeth A Grill, PsyD², Mary Christ, MD, MBA³ and Evgueni Malikov, MBA³, ¹Boston IVF, Waltham, MA, ²Weill Cornell Medical Center, Rye Brook, NY, ³Nestle Health Science, Bridgewater, NJ

P-694 ASSOCIATIONS BETWEEN PSYCHOLOGICAL STATUS AND SEMEN QUALITY PARAMETERS AMONG MALE PARTNERS OF COUPLES ATTEMPTING FERTILITY.

Jiahui Qiu, PhD¹ and Jichun Tan, PhD², ¹Shengjing hospital of China medical university, Shenyang, China, ²Key Laboratory of Reproductive Dysfunction Diseases and Fertility Remodelling of Liaoning Province, Shenyang, China

P-695 EFFECT OF PHYSICIANS' PERSONAL REPRODUCTIVE EXPERIENCES ON COUNSELING INFERTILITY PATIENTS.

Jenna M Turocy, MD¹, Leslie V. Farland, Sc.D.², Elizabeth S Ginsburg, MD³ and Paula C. Brady, MD¹, ¹Columbia University Medical Center, New York, NY, ²University of Arizona, Tucson, AZ, ³Brigham & Women's Hospital, Boston, MA

P-696 AN ANALYSIS OF THE CORRELATION BETWEEN MARITAL ADJUSTMENT TEST AND SELF-ESTEEM AND DEPRESSION IN CHINESE INFERTILE WOMEN.

Qingwen He, MA, Xihong Li, MD./Ph.D, Yan Ouyang, MD./Ph.D and Qingqing Wu, Bachelor's degree, Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China

P-697 DOES DURATION OF INFERTILITY AFFECT THE MALE'S FERTILITY QUALITY OF LIFE?

Rachel Blair Danis, MD¹, Semara A Thomas, MD², Rachel S Mandelbaum, MD¹, Richard J Paulson, MD, MS¹, Kristin Bendikson, M.D.¹, Jacqueline Ho, MD MS¹ and Mary Katherine Samplaski, MD³, ¹University of Southern California, Los Angeles, CA, ²USC Keck School of Medicine, Los Angeles, CA, ³Keck School of Medicine, University of Southern California, Los Angeles, CA

P-698 PREVALENCE OF INFERTILITY TREATMENT IN PATIENTS WITH VULVODYNIA.

Jenny S George, MD¹, Ashley Hesson, MD, PhD², Natalie A Saunders, MD¹ and Hope K Haefner, MD¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan, Obstetrics and Gynecology, Ann Arbor, MI

P-699 SPOUSAL CONCORDANCE IN ASSISTED CONCEPTION: PROSPECTIVE COHORT STUDY OF COUPLES UNDERTAKING THEIR FIRST IVF CYCLE.

Karema Alrashid, MD and Scott M Nelson, MD, PhD, University of Glasgow, Glasgow, United Kingdom

P-700 ATTITUDES TOWARDS PREGNANCY IN PATIENTS WITH VULVODYNIA.

Jenny S George, MD¹, Ashley Hesson, MD, PhD², Natalie A Saunders, MD¹ and Hope K Haefner, MD¹, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan, Obstetrics and Gynecology, Ann Arbor, MI

NUTRITION

P-701 GLYCEMIC LOAD, DIETARY FIBER, AND ADDED SUGAR AND SPONTANEOUS ABORTION.

Sydney K Willis, M.P.H.¹, Lauren A Wise, Sc.D.¹, Amelia K Wesselink, Ph.D.¹, Kenneth J Rothman, Dr.P.H.², Katherine L Tucker, Ph.D.³, Ellen M Mikkelsen, RN, MPH, Ph.D.⁴ and Elizabeth E Hatch, Ph.D.¹, ¹Boston University School of Public Health,



POSTER PRESENTATIONS AND ABSTRACTS

Boston, MA, ²Boston, MA, ³University of Massachusetts Lowell, Lowell, MA, ⁴Aarhus University, Department of Clinical Epidemiology, Aarhus, Denmark

P-702 HIGH-FAT DIET LEADS TO INCREASED OVARIAN LIPID DEPOSITION EVEN IN THE ABSENCE OF OBESITY. Natalie M Hohos, PhD, Emily M Elliott, BS, Jenifer Monks, PhD and Malgorzata E Skaznik-Wikiel, MD, UNIVERSITY OF COLORADO - ANSCHUTZ MEDICAL CAMPUS, Aurora, CO

P-703 MATERNAL SERUM VITAMIN D LEVELS CORRELATE NEGATIVELY WITH THE LENGTH OF INTERBIRTH INTERVALS IN RHESUS MACAQUES. Jing Xu, Ph.D.¹, Allison L Heagerty, Ph.D.¹, Rebecca Wales, B.S.¹, Daniel H Gottlieb, Ph.D.¹, Byung S. Park, Ph.D.² and Kristine Coleman, Ph.D.¹, ¹Oregon National Primate Research Center, Oregon Health & Science University, Beaverton, OR, ²OHSU-PSU School of Public Health, Oregon Health & Science University, Portland, OR

P-704 HIGH-AGE DIET CAUSES ESTROUS CYCLE IRREGULARITIES AND OVARIAN FUNCTION CHANGES IN MICE. Zaher Merhi, MD, HCLD¹, Kimberley A. Thornton, M.D.², Maureen Charron, PhD³ and Erkan Buyuk, MD⁴, ¹Albert Einstein College of Medicine & New Hope Fertility Center, New York, NY, ²Reproductive Medicine Associates of New York, New York, NY, ³Albert Einstein College of Medicine, Bronx, NY, ⁴Einstein/Montefiore, Bronx, NY

OVARIAN RESERVE

P-705 PREGNANCY OUTCOMES FOLLOWING INTRAUTERINE INSEMINATION (IUI) IN YOUNG WOMEN WITH DECREASED OVARIAN RESERVE. Ashley W Tiegs, MD¹, Shelby A Neal, MD², Emily K Osman, MD², Julia G Kim, MD, MPH², Brent M Hanson, MD², Jason M Fransiak, MD², Richard Thomas Scott Jr., MD² and Linnea R Goodman, MD³, ¹Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, ²IVI-RMA New Jersey, Basking Ridge, NJ, ³University of North Carolina, Raleigh, NC

P-706 THE RATE OF ANTRAL FOLLICLE COUNT DECLINE DECREASES WITH OLDER AGE AND LOWER ANTRAL FOLLICLE COUNT. Xiaojie P Zhou, M.D.¹, Charles E McCulloch, PhD², Mitchell P Rosen, MD, HCLD² and Marcelle I Cedars, MD³, ¹University of California - San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

P-707 EXOME SEQUENCING REVEALED SIGNIFICANT DELETERIOUS DNA VARIANTS ASSOCIATED WITH PREMATURE DIMINISHED OVARIAN RESERVE. Blair R McCallie, BS, Mary E Haywood, PhD, Rachel Makloski, RN, William B Schoolcraft, MD and Mandy G Katz-Jaffe, Ph.D., Colorado Center for Reproductive Medicine, Lone Tree, CO

P-708 INTEREST OF THE USE AUTO-TRANSPLANTATION OF THE OVARIAN CORTEX AFTER DORMANT FOLLICLES IN VITRO ACTIVATION (IVA) IN PATIENTS WITH PREMATURE OVARIAN INSUFFICIENCY (POI). Khaled Mahmoud, Dr¹, Hanen Elloumi, Dr², Mohamed Khrouf, Dr¹, MED Habib BEN Aribia, Dr¹, Khaled Terras, Dr³, Sonia Mnallah, Dr³, Mariem ben Khelifa, PhD³ and Fathi Zhioua, Dr³, ¹clinique La Rose, Centre FERTILLIA, jardins du lac 2, Tunisia, ²clinique la rose,, Tunis, Tunisia, ³clinique la rose, centre FERTILLIA, Tunis, Tunisia

P-709 DECLINING TREND OF AMH LEVELS IN INDIAN WOMEN OF REPRODUCTIVE AGE GROUP : THE JASLOK EXPERIENCE. Jyotshna Palgamkar, DGO, DNB¹, Sapna Agarwal, MD¹, Nilesh J Shah, Ph.D², Deepak Ramniklal Sanghavi Sr., MD pathology², Flavia D Almeida, MBA BSc³, Trupti Mehta, DNB⁴, Dhananjay Kulkarni, Ph.D¹, Arundhati Athalye, PhD⁴ and Firuza Rajesh Parikh, MD DNB PhD⁴, ¹Jaslok Hospital and Research Centre, MUMBAI, India, ²Metropolis Healthcare Ltd, MUMBAI, India, ³Metropolis Healthcare Ltd, mumbai, India, ⁴Jaslok Hospital and Research Centre, Mumbai, India

P-710 THE EFFECT OF THE RELATIVE DEGREE OF HOW LOW IS THE SERUM ANTI-MULLERIAN HORMONE (AMH) LEVEL IN WOMEN AGED <39 ON OUTCOME FOLLOWING IN VITRO FERTILIZATION-EMBRYO TRANSFER (IVF-ET). Jerome H Check, M.D., Ph.D.¹, Rachael



POSTER PRESENTATIONS AND ABSTRACTS

Cohen, D.O.¹, Eric Chang, D.O.¹, Jung Choe, M.D.¹ and Carrie K Wilson, B.A.², ¹Cooper Medical School of Rowan University, Camden, NJ, ²Cooper Institute for Reproductive Hormonal Disorders, P.C., Mt. Laurel, NJ

- P-711 SHOULD ANTI-MÜLLERIAN HORMONE BE TESTED FOR PATIENTS UNDERGOING INTRAUTERINE INSEMINATION?** Jenna M Rehmer, MD¹, Elliott G Richards, MD¹, Anne Cashmore Davis, MD², Meng Yao, MS³ and Jeffrey M Goldberg, M.D.³, ¹Cleveland Clinic Foundation, Cleveland, OH, ²IVI America, LLC, Basking Ridge, NJ, ³Cleveland Clinic, Cleveland, OH

PCOS/ANDROGEN EXCESS

- P-712 BROWN ADIPOSE TISSUE IN WOMEN WITH POLYCYSTIC OVARY SYNDROME: RELATIONSHIP WITH BODY MEASURES, PLASMA IRISIN LEVELS AND THE USE OF METFORMIN.** Flavia R Oliveira, MD, PhD¹, Marcelo Mamede, MD, DMSc², Mariana F Bizzi, M.Sc.², Ana Luiza L Rocha, MD, PhD², Claudia N Ferreira, PhD², Karina B Gomes, PhD², Ana L Candido, MD, PhD² and Fernando M Reis, MD, PhD³, ¹Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, ²Affiliation not provided, ³UFMG, Belo Horizonte, Brazil

- P-713 WOMEN WITH POLYCYSTIC OVARIAN SYNDROME AND ELEVATED LEVELS OF INSULIN RESISTANCE ARE MORE PRONE TO BENEFIT FROM DIETS TO IMPROVE INSULIN SENSITIVITY: A META-ANALYSIS.** Esther López-Bayghen, PhD, Samantha García-Hernandez, MD, M. Elba Gonzalez-Mejia, MD, PhD and Leonardo M Porchia, PhD, Centro de Investigación y Estudios Avanzados IPN, México, EM, Mexico

- P-714 PREVALENCE AND PREDICTORS OF ADEQUATE PHYSICAL ACTIVITY IN A MULTIETHNIC POLYCYSTIC OVARY SYNDROME PATIENT POPULATION.** David Huang, MD¹, Eleni A Greenwood, MD, MSc¹, Chia-Ning Kao, MS¹, Molly Quinn, MD², Marcelle I Cedars, MD¹ and Heather G. Huddleston, MD¹, ¹University of California San Francisco, San Francisco, CA, ²University of California Los Angeles, Los Angeles, CA

- P-715 DECREASED LIFETIME FECUNDITY IN WOMEN WITH PCOS: FINDINGS FROM A HIGH FECUNDITY POPULATION.** Erica Johnstone, MD, Meredith Humphreys, MD, C Matthew Peterson, MD, Lisa Cannon-Albright, Ph.D. and Kristina Allen-Brady, Ph.D., MSPH, University of Utah, Salt Lake City, UT

- P-716 IS HIRSUTISM A MARKER OF METABOLIC DYSFUNCTION?** Sahar Wertheimer, MD¹, Jessica L Chan, MD, MSCE¹, Erica T Wang, MD, MAS¹, Ricardo Azziz, MD, MPH² and Margareta D. Pisarska, MD¹, ¹Cedars-Sinai Medical Center, Los Angeles, CA, ²University at Albany, SUNY, Albany, NY

- P-717 BONE MORPHOGENETIC PROTEIN SUPPRESSES THE ANDROGEN PRODUCTION IN PCOS THECA IN-VITRO CELL MODEL.** Rishi Man Chugh, PhD¹, Hang-Soo Park, PhD¹, Amro Elsharoud, MD¹, Mara Ulin, MD¹, Hajra Takala, MD., MPH.¹ and Ayman Al-Hendy, MD PhD², ¹The University of Illinois College of Medicine, Chicago, IL, ²University of Illinois College of Medicine, Chicago, IL

- P-718 DECREASE IN PERIPHERAL 8-HYDROXYDEOXYGUANOSINE LEVELS AND MITOCHONDRIAL DNA COPY NUMBER FOLLOWING METFORMIN TREATMENT IN WOMEN WITH POLYCYSTIC OVARY SYNDROME.** Po-Kai Yang, MD¹, Hong-Nerng Ho, MD, PhD² and Mei-Jou Chen, MD, PhD³, ¹National Taiwan University, Taipei City, Taiwan, ²Department of Obstetrics and Gynecology, National Taiwan University Hospital; Taipei Medical University, Department of Obstetrics and Gynecology, Taiwan, Taipei, Taiwan, ³Department of Obstetrics and Gynecology, National Taiwan University Hospital; National Taiwan University Livia Shangyu Wan Scholar, Taiwan, Taipei, Taiwan

- P-719 ANDROGEN ALTERS SENP3 EXPRESSION AND INDUCES AUTOPHAGY IN GRANULOSA CELLS: A NOVEL MECHANISM INVOLVED IN POLYCYSTIC OVARY SYNDROME.** Dongmei Sun, master and Wei Ran Chai, Doctor, Shanghai Ninth People's Hospital, Shanghai JiaoTong University School Of Medicine, Shanghai, China

- P-720 ESTABLISHING AN ANTI-MÜLLERIAN HORMONE (AMH) CUT-OFF TO DETERMINE POLYCYSTIC OVARIAN MORPHOLOGY (PCOM)**



POSTER PRESENTATIONS AND ABSTRACTS

SUPPORTING DIAGNOSIS OF POLYCYSTIC OVARIAN SYNDROME (PCOS): THE APHRODITE STUDY. Alexandra Dietz de Loos, PhD¹, Martin Hund, PhD², Katharina Buck, PhD³, Cindy Meun, MD¹, Johanna Sillman, PhD² and Joop S.E. Laven, MD, PhD¹, ¹Erasmus University Medical Center, Rotterdam, Netherlands, ²Roche Diagnostics International Ltd., Rotkreuz, Switzerland, ³Roche Diagnostics GmbH, Penzberg, Germany

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DIVERGENT INFLAMMATORY PATHWAYS MODULATE KEY ANDROGENIC GENE EXPRESSION IN OVARIAN THECA-INTERSTITIAL CELLS. Chelsea Webb Fox, M.D.¹, Zhang Lingzhi, Ph.D.¹, Benjamin C Moeller, Ph.D.² and Antoni Duleba, M.D.¹, ¹University of California San Diego, La Jolla, CA, ²University of California Davis, Davis, CA

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SERUM OF POLYCYSTIC OVARY SYNDROME PATIENTS FROM THE PPCOSII TRIAL HAS HIGHER GONADOTROPIN RELEASING HORMONE RECEPTOR AUTOANTIBODY ACTIVITY THAN UNEXPLAINED INFERTILE CONTROLS FROM THE AMIGOS TRIAL. Elizabeth A Weedin, DO¹, Heather R Burks, MD¹, Xichun Yu, MD², Hong Liang Li, MD, PhD², Christopher E Aston, PhD³, David C Kem, MD² and LaTasha B Craig, MD¹, ¹University of Oklahoma Health Sciences Center, Department of Obstetrics and Gynecology, Oklahoma City, OK, ²University of Oklahoma Health Sciences Center, Department of Internal Medicine, Oklahoma City, OK, ³University of Oklahoma Health Sciences Center, Department of Pediatrics, Oklahoma City, OK

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PREGNANCY OUTCOMES WITHIN A PROSPECTIVE COHORT OF WOMEN WITH POLYCYSTIC OVARY SYNDROME (PCOS). Avanthi S Ajjarapu, BA¹, Karen M Summers, MPH CHES¹, Bradley J Van Voorhis, MD² and Rachel Mejia, D.O.¹, ¹University of Iowa, Iowa City, IA, ²University of Iowa, Iowa City, OR

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INFLUENCE OF OBESITY ON CLINICAL OUTCOME IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME. Run-Xin Gan, M.S.¹ and Fei Gong, PhD², ¹Reproductive and Genetic Hospital of CITIC-Xiangya, Changsha, China, ²Reproductive and Genetic Hospital of CITIC-Xiangya, Changsha, Hunan, China

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ASSESSMENT OF PSYCHOLOGICAL DISTRESS IN POLYCYSTIC OVARIAN SYNDROME INFERTILE PATIENTS AT A TERTIARY LEVEL INFERTILITY CARE CENTRE IN INDIA. Kanad Dev Nayar, M.D., DGO., FICOG, Poonam Nayar, Ph.D, Shweta Gupta, MD, MRCOG, Minal Singh, DGO, DNB, Monica Gupta, MD, FRM, Rahul Gahlot, M.D., Dip.Clinical Embryology and Kapil Dev Nayar, MBBS, Akanksha IVF Centre, Delhi, India

P-721

PROBIOTICS AND SYNBIOTICS FOR POLYCYSTIC OVARIAN SYNDROME: A SYSTEMATIC REVIEW AND META-ANALYSIS. Mauro Cozzolino, M.D¹ and Amerigo Vitagliano, M.D², ¹Fundación IVI, Valencia, Spain, ²University of Padua, Padua, Italy

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CAN ANTI-MULLERIAN HORMONE (AMH) LEVELS PREDICT RESPONSE TO OVULATION INDUCTION TREATMENTS IN WOMEN WITH POLYCYSTIC OVARIAN SYNDROME (PCOS)? Stylianos Vagios, MD¹, Caitlin R Sacha, MD¹, Jennifer Y Hsu, MD², Irene Dimitriadis, MD¹, Charles L Bormann, PhD², Kaitlyn E James, PhD¹ and Irene Souter, MD¹, ¹Massachusetts General Hospital, Boston, MA, ²Massachusetts General Hospital, Harvard Medical School, Boston, MA

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ELEVATED ANTIMULLERIAN HORMONE IS DUE TO INCREASED FOLLICLE NUMBER IN POLYCYSTIC OVARY SYNDROME COMPARED TO CONTROLS. Viji Sundaram, MD¹, Chia-Ning Kao, MS², Heather G. Huddleston, MD³ and Marcelle I Cedars, MD², ¹University of California, San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA, ²University of California San Francisco, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA

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POLYCYSTIC OVARY SYNDROME IS ASSOCIATED WITH A SLOWER DECLINE IN ANTIMULLERIAN HORMONE PER ANTRAL FOLLICLE WITH INCREASING AGE. Viji Sundaram, MD¹, Chia-Ning Kao, MS², Heather G. Huddleston, MD² and Marcelle I Cedars, MD³, ¹University of California, San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA, ²University of California San Francisco, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA



POSTER PRESENTATIONS AND ABSTRACTS

P-730 HOMOZYGOUS ANTIMULLERIAN HORMONE (AMH) GENE MUTATION rs10417628 IN A POLYCYSTIC OVARY SYNDROME (PCOS) WOMAN WITH EXAGGERATED HYPERANDROGENISM. Luis R. Hoyos, M.D.¹, Jenny A. Visser, Ph.D.², Anke McLuskey, B.A.², Gregorio Chazenbalk, Ph.D.¹, Tristan R. Grogan, M.S.¹ and Daniel A. Dumesic, M.D.¹, ¹UCLA, Los Angeles, CA, ²Affiliation not provided

P-731 EXPRESSION PROFILES OF miRNA -369-5p AND miRNA-671-3p IN THE PLASMA OF PREGNANT WOMEN WITH POLYCYSTIC OVARY SYNDROME VERSUS NORMAL PREGNANCIES. Meryem Hocaoglu, M.D.¹, Selin Demirer, Specialist², Esra Kaynak, Student³, Erkut Attar, M.D.², Sibel Bulgurcuoglu Kuran, Ph.D.², Ayse Altun, specialist², Abdulkadir Turgut, M.D., Ph.D.¹ and Evrim Komurcu Bayrak, Ph.D.³, ¹Obstetrics and Gynecology, Goztepe Training and Research Hospital, Istanbul Medeniyet University, Istanbul, Turkey, ²Obstetrics and Gynecology, Reproductive Endocrinology and Infertility, Istanbul Medical Faculty, Istanbul University, Istanbul, Turkey, ³Genetics, Aziz Sancar Institute of Experimental Medicine, Istanbul University, Istanbul, Turkey

PRACTICE MANAGEMENT

P-732 THE IMPACT OF A BRIEF INTERVENTION ON RETENTION RATES WITH PATIENTS WHO DID NOT RETURN TO CARE AFTER AN INITIAL PHYSICIAN VISIT. Alice D. Domar, Ph.D., Kristin L Rooney, BA, Dan W Duvall Jr., BA and Denny Sakkas, PhD, Boston IVF, Waltham, MA

P-733 EFFECT OF MANDATED COVERAGE FOR FERTILITY PRESERVATION ON CONVERSION RATE TO TREATMENT. Eric Han, MD¹, Amanda Nicole Kallen, MD² and Pasquale Patrizio, M.D.³, ¹Yale School of Medicine, New Haven, CT, ²Yale University, New Haven, CT, ³Yale Fertility Center, New Haven, CT

P-734 INFERTILITY PATIENT CLINICAL JOURNEY OUTCOME DEPENDS ON INITIAL TREATMENT, STARTING WITH OVULATION INDUCTION (OI) VS IN VITRO FERTILIZATION (IVF): RESULTS FROM A LARGE REAL-WORLD DATABASE.

Mary Mahony, PhD¹, Gilbert L Mottla, MD², Kevin S Richter, PhD³, G. David Ball, PhD⁴, Soudeh Ansari, PhD⁵ and Brooke Hayward, SM, MBA⁶, ¹US Medical Affairs, EMD Serono, Inc., Rockland, MA, ²Shady Grove Fertility Center, Annapolis, MD, ³Fertility Science Consulting, Silver Spring, MD, ⁴Seattle Reproductive Medicine Center, Seattle, WA, ⁵Prometrika LLC, Cambridge, MA, ⁶EMD Serono, Inc., Rockland, MA

P-735 THE FREQUENCY AND IMPLICATIONS OF "CLINIC SWITCHING" AMONGST US IVF PATIENTS. Deborah Anderson, JD, FertilityIQ, San Francisco, CA

P-736 RECONSIDERING THE WEEKEND FREE IN-VITRO FERTILIZATION TREATMENT. ARE RESULTS COMPROMISED BY A FIVE-DAY WORKWEEK? Amir Weiss, MD¹, Shira Baram, MD², Simon Nothman, MD³ and Yoel Geslevich, MD³, ¹Rappaport School of Medicine, Technion Israel, Haifa, Israel, ²CreAte Fertility Centre, Toronto, ON, Canada, ³Emek Medical Center, Afula, Israel

P-737 INSIGHTS INTO INFERTILITY PATIENT DISCONTINUATION OF CARE: RESULTS OF A NATIONWIDE SURVEY. Barbara Collura, MA¹, Brooke Hayward, SM, MBA², Krysten Modrzejewski, PharmD², Gilbert L Mottla, MD³, Kevin S Richter, PhD⁴ and Allison B Catherino, PhD², ¹RESOLVE: The National Infertility Association, McLean, VA, ²EMD Serono, Inc., Rockland, MA, ³Shady Grove Fertility Center, Annapolis, MD, ⁴Fertility Science Consulting, Silver Spring, MD

P-738 DETERMINING THE REASONS WHY INSURED WOMEN DROP OUT OF IVF TREATMENT AFTER ONE UNSUCCESSFUL CYCLE. Alice D. Domar, Ph.D.¹, Kristin L Rooney, BA¹ and Laura E Dodge, ScD, MPH², ¹Boston IVF, Waltham, MA, ²Harvard Medical School, Boston, MA

P-739 DOES IN VITRO FERTILIZATION (IVF) INSURANCE COVERAGE CHANGE PRACTICE PATTERNS? Jenny S George, MD¹, Micaela J Stevenson, BS², Samantha B Schon, MD, MTR¹, Michael Lanham, MD¹, Jim M Dupree IV, MD, MPH¹ and Molly B Moravek, MD, MPH³, ¹University of Michigan, Ann Arbor, MI, ²University of Michigan Medical School, Ann Arbor, MI, ³Michigan Medicine, Ann Arbor, MI



POSTER PRESENTATIONS AND ABSTRACTS

P-740 DECREASING THE BURDEN OF PROGRAMMED FET CYCLES. Kathleen M Doody, MD¹, Martin Langley, MS² and Kevin J. Doody, M.D.¹, ¹CARE Fertility, Bedford, TX, ²Center for Assisted Reproduction, Bedford, TX

P-741 IMPACT OF INSURANCE COVERAGE FOR FERTILITY TREATMENT ON PATIENT PREFERENCE FOR SINGLETON GESTATION. Seth J Barishansky, MS¹, Anne Hutchinson, M.D.¹, Dana B McQueen, MD, MAS², Rafael Confino, BS¹, Angela K. Lawson, Ph.D.¹ and Mary Ellen Pavone, MD, MSCI¹, ¹Northwestern University, Chicago, IL, ²Northwestern University Feinberg School of Medicine

P-742 CUTTING THE COST OF PARENTHOOD: THE EFFICACY AND COST SAVINGS OF COMPOUNDED FOLLICLE STIMULATING HORMONE. Alexander J Tatem, MD¹, J Abram McBride, MD², Joie Guner, MD, MSc³, Jonathan A Beilan, MD³, Jabez Gondokusumo, B.S.⁴, Amy K Schutt, MD³, Paul Zarutskie, MD³, William Gibbons, MD³ and Larry I. Lipshultz, M.D.³, ¹Men's Health Center, Indianapolis, TX, ²Urological Associates, Colorado Springs, CO, ³Baylor College of Medicine, Houston, TX, ⁴TX

P-743 FACTORS ASSOCIATED WITH A PATIENT'S DECISION TO DISCONTINUE FERTILITY TREATMENT BEFORE ACHIEVING PREGNANCY. Barbara Collura, MA¹, Brooke Hayward, SM, MBA², Krysten Modrzejewski, PharmD², Gilbert L Mottla, MD³, Kevin S Richter, PhD⁴ and Allison B Catherino, PhD², ¹RESOLVE: The National Infertility Association, McLean, VA, ²EMD Serono, Inc., Rockland, MA, ³Shady Grove Fertility Center, Annapolis, MD, ⁴Fertility Science Consulting, Silver Spring, MD

PREGNANCY LOSS

P-744 PROTEOMIC SIGNATURES OF EPIGENETIC AND TRANSCRIPTION REGULATORS ARE PIVOTAL IN CONTROLLING PATERNAL FACTORS IN RECURRENT PREGNANCY LOSS. Gayatri Mohanty, PhD¹, Soumya Ranjan Jena, M.Phil¹, Jasmine Nayak, M.Phil¹, Sujata Kar, MBBS MD DNB² and Luna Samanta, PhD¹, ¹Redox Biology Laboratory, Department of Zoology, Center of Excellence in Environment and Public

Health, Ravenshaw University, Cuttack, Odisha, India, ²A-32, Unit-4, Kharvel Nagar, Bhubaneswar, India

P-745 PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) REDUCES MISCARRIAGE AND IMPROVES LIVE BIRTH RATES IN RECURRENT PREGNANCY LOSS PATIENTS. Julia G Kim, MD, MPH¹, Gayathree Murugappan, MD², Ruth B Lathi, MD³, Jonathan D Kort, MD⁴, Brent M Hanson, MD¹, Ashley W Tiegs, MD⁵, Emily K Osman, MD¹, Shelby A Neal, MD¹ and Richard Thomas Scott Jr., MD¹, ¹IVI-RMA New Jersey, Basking Ridge, NJ, ²Stanford University Medical Center, Sunnyvale, CA, ³Stanford Fertility and Reproductive Medicine Center, Sunnyvale, CA, ⁴IVI/ Reproductive Medicine Associates of Northern California, San Francisco, CA, ⁵Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA

P-746 HIGH ODDS OF ANEUPLOIDY IN RECURRENT PREGNANCY LOSS POPULATION IRRESPECTIVE OF FINDINGS ON TRADITIONAL EVALUATIONS. Ann Korkidakis, MD, MPH¹, Arianne Y K Albert, PhD² and Mohamed Ali Bedaiwy, M.D., Ph.D.³, ¹University Of British Columbia, Vancouver, BC, Canada, ²Women's Health Research Institute, Vancouver, BC, Canada, ³University of British Columbia, Vancouver, BC, Canada

P-747 PREGNANCY LOSS AFTER FROZEN EMBRYO TRANSFER OF BLASTOCYSTS, EUPLOID BY NEXT GENERATION SEQUENCING (NGS): IS IT THE STIMULATION FOR RETRIEVAL, THE UTERINE PREPARATION FOR FET, THE EMBRYO TRANSFER OR THE EMBRYO? David H. McCulloh, Ph.D.¹, Caroline McCaffrey, Ph.D.² and James A Grifo, MD, PhD³, ¹NYU Langone Health, New York, NY, ²New York Langone Health, NYU Fertility Center, New York, NY, ³NYU Langone Prelude Fertility Center, New York, NY

P-748 CHRONIC INTERVILLOSITIS OF UNKNOWN ETIOLOGY (CIUE): A CAUSE FOR REPRODUCTIVE FAILURE. Natasha K Simula, M.D.¹, Jefferson Terry, M.D. Ph.D.², Nancy Elizabeth Kent, M.D.¹, Julie Robertson, M.D.¹, Susan Purkiss, M.D.³ and Mohamed Ali Bedaiwy, M.D., Ph.D.¹, ¹University of British



POSTER PRESENTATIONS AND ABSTRACTS

Columbia, Department of Obstetrics and Gynecology, Vancouver, BC, Canada, ²University of British Columbia, Department of Pathology and Laboratory Medicine, Vancouver, BC, Canada, ³University of British Columbia, Department of General Internal Medicine, Vancouver, BC, Canada

P-749 IS ANTIMULLERIAN HORMONE PREDICTIVE OF OUTCOMES AFTER PGT-A IN PATIENTS WITH RECURRENT PREGNANCY LOSS?

Gayathree Murugappan, MD¹, Lora K Shahine, MD² and Ruth B Lathi, MD³, ¹Stanford University Medical Center, Sunnyvale, CA, ²Pacific Northwest Fertility and IVF Specialists, Seattle, WA, ³Stanford University Medical Center, SUNNYVALE, CA

P-750 MANAGEMENT OF EARLY PREGNANCY LOSS WITH MIFEPRISTONE AND MISOPROSTOL: CLINICAL PREDICTORS OF SUCCESS FROM A RANDOMIZED TRIAL.

Sarita Sonalkar, MD MPH¹, Nathanael C Koelper, MPH¹, Mitchell D Creinin, MD², Jessica M. Atrio, MD, MSc³, Mary D Sammel, ScD¹ and Courtney A. Schreiber, MD, MPH¹, ¹University of Pennsylvania, Philadelphia, PA, ²University of California - Davis, Sacramento, CA, ³Montefiore Hospital & Albert Einstein College of Medicine, Bronx, NY

P-751 THE CELLULAR ROLES OF RPL-PROTEASE A IN THE RECURRENT PREGNANCY LOSS.

Chang-Zhu Pei, MD¹, Jun-Hyeok Park, MS¹, Bum Chae Choi, MD, PHD², In Kyung Oh, MD², Hyo Young Park, PHD² and Kwang-Hyun Baek, PHD¹, ¹CHA University, Seongnam-Si Gyeonggi-Do, Korea, Republic of (South), ²Creation and Love Women's Hospital, Gwang-ju, Korea, Republic of (South)

P-752 ANTI-MULLERIAN HORMONE (AMH) AND SPONTANEOUS ABORTION (SAB): IS AMH AN INDEPENDENT RISK FACTOR FOR SAB IN GONADOTROPIN-IUI CYCLES?

Jennifer Y Hsu, MD¹, Kaitlyn E James, PhD¹, Irene Dimitriadis, MD¹, Georgios Christou, MD², Stylianos Vagios, MD¹, Charles L Bormann, PhD¹ and Irene Souter, MD¹, ¹Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Albert Einstein College of Medicine, Bronx, NY

P-753 CHARACTERISTICS OF FIRST TRIMESTER MISCARRIAGES ASSESSED BY CHROMOSOMAL ANALYSIS OF PRODUCTS

OF CONCEPTION WITH NEXT GENERATION SEQUENCING.

Takumi Takeuchi, MD, PhD¹, Masakazu Doshida, MD¹, Yukiko Takaya, MD², Kohei Yamaguchi, MD², Hidehiko Matsubayashi, MD¹, Kotaro Kitaya, MD², Yasuhisa Araki, PhD³ and Tomomoto Ishikawa, MD¹, ¹Reproduction Clinic Tokyo, Tokyo, Japan, ²Reproduction Clinic Osaka, Osaka, Japan, ³Nippon Reprogenetics Inc, Maebashi, Japan

P-754 VITAMIN D INSUFFICIENCY IS THE RISK FACTOR FOR HYPERHOMOCYSTEINEMIA DERIVED FROM MTHFR C677T GENE POLYMORPHISM IN WOMEN WITH RECURRENT PREGNANCY LOSSES.

Kuniaki Ota, M.D.¹, Toshifumi Takahashi, M.D.¹ and Joanne Kwak-Kim, MD, MPH², ¹Fukushima Medical University, Fukushima, Japan, ²Chicago Medical School, Rosalind Franklin University of Medicine and Science, North Chicago, IL, Vernon Hills, IL

PROFESSIONAL DEVELOPMENT

P-755 SURGICAL SIMULATION SUPPLEMENTS REI FELLOWSHIP TRAINING.

Tess E Chase, MD¹, Stephanie J Estes, MD², Divya Kelath Shah, MD, MME³, Preston Parry, MD⁴, Balasubramanian Bhagavath, M.B.B.S.⁵, Steven R. Lindheim, M.D.⁶, John C Petrozza, M.D.⁷ and Samantha Pfeifer, M.D.⁸, ¹Penn State Milton S Hershey Medical Center, Harrisburg, PA, ²Penn State Milton S. Hershey Medical Center, Hershey, PA, ³University of Pennsylvania, Philadelphia, PA, ⁴Parryscope Fertility, Madison, MS, ⁵University of Rochester Medical Center, Rochester, NY, ⁶Wright State University, Dayton, OH, ⁷Massachusetts General Hospital Fertility Center, Boston, MA, ⁸Weill Medical College of Cornell University, New York, NY

P-756 CLINICAL EXPOSURE IN OB/GYN RESIDENT TRAINING PROGRAMS IN THE UNITED STATES TO INFERTILITY CARE FOR LOW RESOURCE AND UNDERSERVED COMMUNITIES.

Holly Mehr, MD MEd¹, Tia Jackson-Bey, MD MPH², Jacqueline Ho, MD MS³, Lusine Aghajanova, MD PhD⁴, Molly M Quinn, MD¹, Jacquelyn Rose Hoffman, BA⁵ and Christopher N Herndon, MD⁶, ¹University of California, Los Angeles, Los Angeles, CA, ²University of Illinois at Chicago, College



POSTER PRESENTATIONS AND ABSTRACTS

of Medicine, Chicago, IL, ³University of Southern California, Los Angeles, CA, ⁴Stanford University School of Medicine, Stanford, CA, ⁵University of Arizona College of Medicine - Tucson, Tucson, AZ, ⁶University of Washington, Seattle, WA

P-757 CURRENT ONCOLOGY TRAINING PROGRAMS LACK ADEQUATE EDUCATION IN FERTILITY PRESERVATION COUNSELING. Elizabeth Brackett, MD¹, Vicky Moy, MD², Abhinav Hasija, BS, MS³, Michael A. Thomas, MD⁴, Julie Sroga Rios, MD⁵ and Suruchi Thakore, MD², ¹University of Cincinnati Medical Center, Cincinnati, OH, ²University of Cincinnati Medical Center, West Chester, OH, ³The Ohio State University- Fisher College of Business, Columbus, OH, ⁴University of Cincinnati, Cincinnati, OH, ⁵University of Cincinnati and Cincinnati Children's Hospital Medical Center, Cincinnati, OH

P-758 FERTILITY AWARENESS AND ATTITUDES AMONG RESIDENT PHYSICIANS ACROSS DIFFERENT SPECIALTIES. Shelun Tsai, MD¹, Tracy Truong, MS², Carl F. Pieper, DrPH² and Jennifer L. Eaton, MD, MSCI¹, ¹Division of Reproductive Endocrinology and Infertility, Duke University Medical Center, Durham, NC, ²Department of Biostatistics & Bioinformatics, Duke University Medical Center, Durham, NC

P-759 THE EFFECT OF RESIDENT PHYSICIAN INVOLVEMENT ON SURGICAL OUTCOMES AND COMPLICATIONS OF FERTILITY SURGICAL. Wesley Yip, MD¹, Sarah C. Vij, MD², Jianbo Li, PhD², Lauren Beeder, BS¹ and Mary Katherine Samplaski, MD³, ¹University of Southern California, Los Angeles, CA, ²Cleveland Clinic Foundation, Cleveland, OH, ³Keck School of Medicine, University of Southern California, Los Angeles, CA

P-760 INFERTILITY, FERTILITY PRESERVATION, AND ACCESS TO CARE DURING TRAINING: A NATIONWIDE MULTI-SPECIALTY SURVEY OF UNITED STATES RESIDENTS AND FELLOWS. Ange Wang, MD¹, Christopher N Herndon, MD², Evelyn Mok-Lin, MD³ and Lusine Aghajanova, MD PhD¹, ¹Stanford University School of Medicine, Stanford, CA, ²University of Washington, Seattle, WA, ³REI UCSF, Center for Reproductive Health, San Francisco, CA

P-761 UTILIZING A NOVEL RESIDENT EDUCATION INITIATIVE TO PROVIDE REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY CARE FOR UNDERINSURED WOMEN. Elizabeth S Rubin, MD, Anat Chemerinski, MD, Samantha Butts, MD and Catherine R Salva, MD, University of Pennsylvania, Philadelphia, PA

P-762 DOES LONGER EDUCATION MEAN POSTPONED PREGNANCY? Ecem Esencan, M.D.¹, Burcin Simsek, Ph.D.² and Emre Seli, M.D.¹, ¹Yale School of Medicine, New Haven, CT, ²University of Pittsburgh, Pittsburgh, PA

P-763 MEDICAL STUDENTS' KNOWLEDGE ABOUT THIRD-PARTY REPRODUCTION. Kajal Khodamoradi, phd student¹, Fardin Amidi, phd², Zahra Khosravizadeh, phd student³, Ali Talebi, phd⁴, Zahra Rashidi, phd student³, Mohammad Hossein Ayati, MD, PhD⁵ and Parva Namiranian, MD⁶, ¹School of Medicine, Tehran University of Medical Sciences, Tehran, Iran, miami, FL, ²School of Medicine, Tehran University of Medical Sciences, Tehran, Iran, Tehran, FL, Iran (Islamic Republic of), ³School of Medicine, Tehran University of Medical Sciences, Tehran, Iran, tehran, FL, Iran (Islamic Republic of), ⁴School of Medicine, Shahroud University of Medical Sciences, Shahroud, Iran, Shahroud, FL, Iran (Islamic Republic of), ⁵School of Traditional Medicine, Tehran University of Medical Sciences, Tehran, Iran, Tehran, Iran (Islamic Republic of), ⁶Department of Persian Medicine, School of Persian Medicine, Tehran University of Medical Sciences, Tehran, Iran., tehran, Iran (Islamic Republic of)

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P-765 IMPACT OF YOGA BASED LIFESTYLE INTERVENTION ON QUALITY OF LIFE, DEPRESSION AND SPERM OXIDATIVE DNA DAMAGE: A RANDOMIZED CONTROLLED



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TRIAL ON INFERTILE MEN WITH RHEUMATOID ARTHRITIS. Surabhi Gautam, PhD Scholar¹, Manoj Kumar, PhD¹, Priyanka Chaurasia, M.Sc.¹, Deeksha Rana, M.Sc.¹ and Rima Dada, MD, PhD², ¹All India Institute of Medical Sciences, New Delhi, India, ²All India Institute of Medical Sciences, Anatomy, New Delhi, India

P-766 DECREASED EXPRESSION OF PD1 IN PERIPHERAL BLOOD Th17 CELLS IN WOMEN WITH UNEXPLAINED RECURRENT PREGNANCY LOSS. Wenjuan Wang, MD, PhD¹, Maria Dinorah Salazar Garcia, MD², Xiuhua Yang, PhD, MD¹, Qiaohua He, PhD, MD¹, Giovanni Jubiz, MD, PhD¹, Svetlana Dambaeva, Ph.D.³, Alice Gilman-Sachs, PhD⁴, Kenneth Beaman, PhD⁴ and Joanne Kwak-Kim, MD, MPH¹, ¹Reproductive Medicine and Immunology, Chicago Medical School, Rosalind Franklin University of Medicine and Science, Vernon Hills, IL, ²Mount Sinai Hospital, Chicago, IL, ³Clinical Immunology Lab, Department of Microbiology and Immunology, Chicago Medical School, Rosalind Franklin University of Medicine and Science, North Chicago, IL, ⁴Rosalind Franklin University of Medicine and Science, North Chicago, IL

P-767 DOES SERUM ANTI-NUCLEAR ANTIBODY PREDICT OUTCOMES OF PREGNANCY AMONG WOMEN WITH A HISTORY OF RECURRENT PREGNANCY LOSS, WITHOUT COEXISTING ANTI-PHOSPHOLIPID ANTIBODY SYNDROME ? A SYSTEMATIC REVIEW AND META-ANALYSIS Trenton Place, DO, PhD¹, Karen M Summers, MPH CHES¹, Matt Regan, MA MLIS², Patrick Ten Eyck, MS PhD¹, Yunshu Zhou, MS², Brittany Bettendorf, MD¹ and Abey Eapen, MBBS DRCOG PhD¹, ¹University of Iowa, Iowa City, IA, ²The University of Iowa, Iowa City, IA

P-768 NATURAL KILLER CELL-BASED PREDICTIVE ASSAY FOR PREGNANCY OUTCOME IN FROZEN EMBRYO TRANSFER CYCLES. Warren J Huber III, MD, PHD¹, Paula M Krueger, BS², May-Tal Sauerbrun-Cutler, MD¹, GERALYN Messerlian, PhD³ and Surendra Sharma, MD PhD², ¹Warren Alpert Medical School of Brown University; Women & Infants Hospital, Providence, RI, ²Warren Alpert Medical School of Brown University; Women & Infants Hospital; Department of Pediatrics,

PROVIDENCE, RI, ³Warren Alpert Medical School of Brown University; Women & Infants Hospital, PROVIDENCE, RI

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P-769 WEEKEND PRESENTATION IMPACTS TIMING OF ECTOPIC PREGNANCY SURGICAL MANAGEMENT AND OUTCOMES. Jessica Selter, MD, Timothy Wen, MD, MPH, Jenna M Turocy, MD, Eric J. Forman, MD, Samuel Zev Williams, M.D., Ph.D. and Alexander Friedman, MD, MPH, Columbia University Medical Center, New York, NY

P-770 NORMAL SALINE SOLUTION IS AS EFFECTIVE AS POVIDONE IODINE IN PREOPERATIVE VAGINAL CLEANSING BEFORE SHORT DURATION GYNCOLOGICAL LAPAROSCOPY. Ahmed M Abbas, MD, Mohammed Khairy Ali, MD, Ahmed M. Abdelmagied, MD, Osama S Abdalmageed, MD and Esraa Badran, MD, Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt

P-771 FLUID DEFICIT CALCULATION AT HYSTEROSCOPY IN PATIENTS WITH AND WITHOUT TUBAL OCCLUSION: COULD CONSIDERATION OF TUBAL PASSAGE CHANGE SAFETY LIMITS? Irene Peregrin-Alvarez, MD, Robert Roman, MD, Mary Emily Christiansen, MD, Joshua Morris, MD and Laura Detti, MD, University of Tennessee Health Science Center, Memphis, TN

P-772 SEVERE HAEMATOPERITONEUM AFTER TRANSVAGINAL OOCYTE RETRIEVAL RELATED OVARIAN BLEEDING COULD BE MOSTLY MANAGED BY CONSERVATIVE TREATMENT: 8332 CASES OF ONE CLINICIAN'S EXPERIENCE IN 5 YEARS. Melih Aygun, M.D.¹, Caroline Pirkevi Cetinkaya, PhD², Murat Cetinkaya, M.D., PhD² and Semra Kahraman, Prof.², ¹Infertility specialist, ISTANBUL, Turkey, ²Istanbul Memorial Hospital, Istanbul, Turkey

P-773 ANALYSIS OF THE PREGNANCY OUTCOMES OF HETEROTOPIC FALLOPIAN TUBAL PREGNANCY AND HETEROTOPIC INTERSTITIAL PREGNANCY AFTER IN VITRO FERTILIZATION - EMBRYO TRANSFER. Mingxiang Zheng, Bachelor's degree¹, Xihong Li, MD./Ph.D², Yan Ouyang, MD./Ph.D², Yuyao Mao, Master², Jingzi



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Xiao, Master² and Qingqing Wu, Bachelor's degree², ¹Reproductive and Genetic hospital of CITIC-Xiangya, Changsha, China, ²Reproductive and Genetic hospital of Citic-Xiangya, Changsha, China

P-774 THE IMPACT OF IPSILATERAL TESTICULAR ATROPHY ON SEMEN ANALYSIS AND DNA FRAGMENTATION RESPONSE TO VARICOCELE REPAIR.

Natasha Abdullah, BA, Melissa S Gilkey, M.S., Caitlin Hunn, M.S., Shu-Hung Chen, M.S., Keikhosrow M Kavoussi, MD, Amy S Esqueda, BSN, MSN, APRN, J. David Winger, PhD, HCLD, Shahryar K Kavoussi, MD, MPH and Parviz K Kavoussi, MD, Austin Fertility & Reproductive Medicine/Westlake IVF, Austin, TX

P-775 EFFICACY AND SAFETY OF ORAL VERSUS VAGINAL MISOPROSTOL IN CERVICAL PRIMING BEFORE HYSTEROSCOPY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS.

Ahmed M. Abdelhakim, MBBCh¹, Al-Hussein Gadallah, MBBCh² and Ahmed M Abbas, MD³, ¹Kasr Al-Ainy Faculty of Medicine, Cairo University, Cairo, Egypt, ²Faculty of Medicine, Assiut University, Assiut, Egypt, ³Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt

P-776 OUTCOME OF LAPAROSCOPIC REPAIR OF CESAREAN SCAR DEFECT.

Hesham A. Salem, FA, M.D., M.D.¹, Moustafa Z. Moustafa, M.D.¹, Dina M. Aglan, M.D.¹, Emam A. Abdelnaby, M.D.², Adel E. Elgerawy, M.D.³, Ayman Shehata Dawood, M.D.⁴, Amro D. Aglan, MBBCH⁵ and Mohamed H. A. Salem, MBBCH⁶, ¹Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ²Consultant at Faculty of Medicine Tanta University Hospitals, Tanta, Egypt, ³Assistant Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ⁴Lecturer at Faculty of Medicine, Tanta University, Tanta, Egypt, ⁵House Officer at Tanta University Hospitals, Tanta, Egypt, ⁶Medical Student at Faculty of Medicine, Tanta University, Tanta, Egypt

P-777 PREDICTIVE VALUE OF HORMONES IN SPERM RETRIEVAL SURGERY.

ent Russell Edwards Jr., MD, Nicholas Ross Major, BS, Kit N Simpson, DrPH and Marc J. Rogers, MD, Medical University of South Carolina, Charleston, SC

P-778 PREGNANCY RATES AFTER LAPAROSCOPIC OVARIAN DRILLING IN POLYCYSTIC OVARY SYNDROME PATIENTS FOLLOWING UNSUCCESSFUL OVULATION INDUCTION.

Shruti Agarwal, DO¹ and Mark P Trolice, MD², ¹UCF College of Medicine/HCA Consortium of Greater Orlando, Kissimmee, FL, ²Fertility CARE: The IVF Center; University of Central Florida College of Medicine – Associate Professor, Winter Park, FL

P-779 IMPACT OF SAFETY PROTOCOL IN AN AMBULATORY SURGICAL SETTING VS A HOSPITAL SETTING FOR LAPAROSCOPIC-ASSISTED MYOMECTOMY (LAM).

Mamta Mamik, MD¹, Vanessa Sarfoh, MD MPH², Nilofar Kazi, BS, Faraj Touchan, MD¹, Leah Haworth, BS, Louise Van Der Does, PhD⁴, Natalya Danilyants, MD⁵ and Paul Mackoul, MD¹, ¹Center for Modern Surgery, Montclair, NJ, ²Center for Innovative Gyn Care, Rockville, MD, ³The Center for Innovative GYN Care, Rockville, MD, ⁴Center for Innovative GYN Care, Rockville, MD

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Lisa M Shandley, MD, MSc¹, Jessica B Spencer, MD, MSc¹, Lauren M Kipling, MPH², Banna Hussain, MPH², Ann C Mertens, PhD³ and Penelope P Howards, PhD², ¹Emory University School of Medicine, Atlanta, GA, ²Emory University Rollins School of Public Health, Atlanta, GA, ³Aflac Cancer Center, Atlanta, GA

P-781 COMPLETE ROBOTIC LIVING DONOR HYSTERECTOMY FOR UTERUS TRANSPLANTATION.

Liza Johannesson, MD, PhD, Giuliano Testa, MD, Johanna Bayer, MD, Greg J McKenna, MD and Colin Koon, MD, PhD, Baylor University Medical Center, Dallas, TX

P-782 VISUALIZATION AND INJECTION OF RETE TESTIS FOR GERM CELL TRANSPLANTATION AND SPERM RETRIEVALS IN RHESUS MONKEYS AND HUMANS.

Sherman Silber, MD¹, Yuting Fan, M.D.² and Sierra Goldsmith, B.S.¹, ¹Infertility Center of St. Louis, Chesterfield, MO, ²University of Michigan, Ann Arbor, MI

P-783 OUTCOME OF HYSTEROSCOPIC REPAIR OF SYMPTOMATIC CESAREAN SCAR DEFECT.

Dina M. Aglan, M.D.¹, Hesham A. Salem, FA, M.D., M.D.¹, Moustafa Z. Moustafa, M.D.¹, Emam A. Abdelnaby, M.D.², Amro D. Aglan, MBBCH³ and Mohamed H. A.



POSTER PRESENTATIONS AND ABSTRACTS

Salem, MBBCH⁴, ¹Professor at Faculty of Medicine, Tanta University, Tanta, Egypt, ²Consultant at Faculty of Medicine Tanta University Hospitals, Tanta, Egypt, ³House Officer at Tanta University Hospitals, Tanta, Egypt, ⁴Medical Student at Faculty of Medicine, Tanta University, Tanta, Egypt

P-784 POST-CESAREAN SECTION VENTRAL UTERINE ADHESIONS. CLINICAL AND LAPAROSCOPIC CHARACTERISTICS OF 167 CASES. A PRELIMINARY REPORT OF UTEROLYSIS.

Mahmoud A Abdel-Aleem, MD¹ and Ahmed M Abbas, MD², ¹Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut university, Assiut, Egypt, ²Department of Obstetrics and Gynecology, Faculty of Medicine, Assiut University, Assiut, Egypt

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Stephanie Cheung, B.S., Zev Rosenwaks, M.D. and Gianpiero D. Palermo, M.D., Ph.D., The Ronald O. Perleman and Claudia Cohen Center for Reproductive Medicine, Weill Cornell Medicine, New York, NY

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³IVI Foundation - ISSLaFe Biomedical Research Institute, Valencia, Spain, ⁴IVI-RMA, IVI Rome, Rome, Italy, ⁵IVI Foundation Innovation - Reproductive Medicine IIS La Fe, Valencia, Spain

MAINTAINING ENDOMETRIAL STROMAL STEM CELLS IN A NON-SCAFFOLD BASED 3D CULTURE SYSTEM. Sule Yildiz, MD, Bahar D Yilmaz, MD, Stacy A Kujawa, BS and Serdar Bulun, MD, Northwestern University, Chicago, IL

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AUTOLOGOUS PRP FOR THE MANAGEMENT OF THIN ENDOMETRIUM IN FROZEN EMBRYO TRANSFER CYCLES: WOULD IT IMPROVE THE OUTCOME? Siddhartha Nagireddy, MCh(Reproductive medicine and Surgery)¹, N Sanjeeva Reddy, MD (Obstetrics and Gynecology), DGO², Monna Pandurangi, MD (Ob & Gyn)³, Radha Vembu, DGO, DNB (Obstetrics and Gynecology), MNAMS, FICS, FIGOG, PhD³, Manjula Daniel G, PhD⁴, Sindhuja Namboori Srinivasan, MBBS, M.Sc Clinical Embryology, PhD Research Scholar⁵ and Lahari Katneni, MS (Ob & Gyn)⁶, ¹Assistant Professor, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ²Professor and Head, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ³Associate Professor, Department of Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India, ⁴Embryologist, Chennai, India, ⁵Bachelor of medicine, bachelor of surgery(MBBS), Msc Clinical Embryology, Chennai, India, ⁶Postgraduate in MCh Reproductive Medicine and Surgery, Sri Ramachandra Institute of Higher Education and Research, Chennai, India

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Mahdi Mohaqiq, PhD¹, Mansoureh Movahedin, PhD¹, Zohreh Mazaheri, PhD² and Naser AmirJannati, MD¹, ¹Medicine Faculty, Kateb University, Kabul, Afghanistan, ²Histogenotech company, Tehran, Iran (Islamic Republic of)

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Nuria Pellicer, MD¹, Anna Buigues, B.Sc.², Francisco Dominguez, Ph.D.³, Susana Martinez-Cuenca, M.D.¹, Antonio Pellicer, MD⁴ and Sonia Herraiz, Ph.D.⁵, ¹Hospital Universitario y Politecnico La Fe, Valencia, Spain, ²IVI Foundation, Innovation, Valencia, Spain,

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DEVELOPING METHODS FOR CO-CULTURE OF HUMAN TESTICULAR CELLS AND PLURIPOTENT STEM CELLS. Marina V Pryzhkova, PhD and Philip W Jordan, PhD, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD

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Bo Sun, M.D., Ph.D. and Yingpu Sun, M.D., Ph.D., The First Affiliated Hospital of Zhengzhou University, zhengzhou, China

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Feinberg School of Medicine, Chicago, IL, ²Vanderbilt University, Nashville, IL

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GRANULOSA CELL. Hang-Soo Park, PhD¹, Abdeljabar El Andaloussi, PhD², Rishi Man Chugh, PhD¹, Amro Elsharoud, MD¹, Mara Ulin, MD¹, Hajra Takala, MD., MPH.¹ and Ayman Al-Hendy, MD PhD¹, ¹The University of Illinois College of Medicine, Chicago, IL, ²The University of Illinois College of Medicine Department of Pathology, Chicago, IL

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CONTENT ANALYSIS OF AN ONLINE MALE INFERTILITY COMMUNITY ON THE SOCIAL MEDIA WEBSITE REDDIT. Vadim Osadchiy, BS¹, Jesse Mills, M.D.² and Sriram Eleswarapu, M.D., Ph.D.³, ¹Department of Urology, David Geffen School of Medicine at UCLA, Los Angeles, CA., Los Angeles, CA, ²David Geffen School of Medicine at UCLA, Los Angeles, CA, ³University of California, Los Angeles, Los Angeles, CA

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Xiaolan Li, MD, Lei Jia, MD, Zhiqiang Zhang, master's degree, Shihui Zhang, bachelor's degree and Xiao-Yan Liang, MD, PhD, The Sixth Affiliated Hospital of Sun Yat-sen University, Guangzhou, China

MALE INFERTILITY WEBSITES: WHAT ARE OUR PATIENTS READING? English Margaret, BS¹, Wesley Yip, MD², Manan Darshan Mehta, BS³ and Mary Katherine Samplaski, MD⁴, ¹Keck School of Medicine, University of Southern California, Los Angeles, CA, ²University of Southern California, Los Angeles, CA, ³Keck USC School of Medicine, Los Angeles, CA, ⁴Keck School of Medicine, University of Southern California, Los Angeles, CA

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UTILIZATION OF SOCIAL MEDIA FOR PERSONAL BRANDING BY PHYSICIANS. Natalie M Crawford, MD, MSCR¹ and Emily Evans-Hoeker, MD², ¹Aspire Fertility Austin, Austin, TX, ²Virginia Tech Carilion School of Medicine, Roanoke, VA

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PATERNAL FACTORS AND EMBRYO ANEUPLOIDY: IS SOMETHING RELATED? Thiago F Nunes, MD¹, Andrea Belo, BSc², Nathaly M Menezes, BSc², Thiago ACL Lotfi, BSc², Nathalia Moreti, BSc², Bruna Lima, BSc², Isabela Mantelato, BSc², Caroline Fauth, BSc², Paulo Cesar Serafini, MD, PhD¹, Thais S Domingues, MD, PhD¹, Aline R Lorenzon, PhD³, Jose Roberto Alegretti, MSc², Eduardo LA Motta, MD, PhD¹ and Guilherme JA Wood, MD, PhD¹, ¹Huntington Medicina Reprodutiva, Sao Paulo, Brazil, ²Huntington Medicina Reprodutiva, Embryology Department, Sao Paulo, Brazil, ³Scientific Coordinator, Huntington Medicina Reprodutiva, Sao Paulo, Brazil



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- P-816 EUPLOID EMBRYOS WHERE ONLY 1PN OR NO PRONUCLEI (PN) WERE SEEN HAVE DELIVERY RATES COMPARABLE TO EUPLOID 2PN EMBRYOS.** Caroline McCaffrey, Ph.D.¹, David H. McCulloh, Ph.D.², Hsiao-Ling Lee, BS², Andria G Besser, MS², Xinjian He, MS², Frederick L. Licciardi, M.D.³ and James A Grifo, MD, PhD², ¹New York Langone Health, NYU Fertility Center, New York, NY, ²NYU Langone Fertility Center, New York, NY, ³NYU Langone Health, New York, NY
- P-817 SPERM MOTILITY IS ASSOCIATED WITH THE NUMBER OF GOOD QUALITY EMBRYOS PRODUCED IN WOMEN WITH DIMINISHED OVARIAN RESERVE.** Amanda Adeleye, MD¹, Liza Jalalian, BS, CLS², Teresa Leung, B.S.², Fleurdeliza Rabara, BS, CLS³, Marcelle I Cedars, MD³ and Mitchell P Rosen, MD, HCLD⁴, ¹UCSF REI fellow, San Francisco, CA, ²University of California San Francisco, San Francisco, CA, ³University of California San Francisco, Department of Obstetrics and Gynecology, San Francisco, CA, ⁴UCSF, San Francisco, CA
- P-818 EVIDENCE-BASED EVALUATION OF REPEATED CYCLES OF OOCYTE DONATION BY THE SAME WOMAN: TREATMENT OUTCOMES ARE NOT ADVERSELY AFFECTED BY MULTIPLE PRIOR DONATIONS.** Carol Lynn Curchoe, PhD, TS (ABB), Ashley Geka, BS, Heather Coulter, B.S. M.A., Rebecca Gu, MS, V. Julie Collier, TS, Sara Berkshire, BA, Lindsay Gates, BS, Linda Anderson, BA, TS (ABB), Sigourney Anne Francisco, BS, Vanessa Julaton, PhD, TS (ABB), Jennifer Collins, MS, William Venier, MSc, ELD (ABB), Susanna Park, MD, Brooke Friedman, MD, Said Daneshmand, MD, Sandy Chuan, MD and L. Michael Kettel, MD, San Diego Fertility Center, San Diego, CA
- P-819 DOES LH SUPPLEMENTATION IN POOR RESPONDERS AFFECT GRANULOSA CELL APOPTOSIS RATE IN ART?** Sebnem alanya Tosun, MD¹, Enis Ozkaya, MD², Basak Aru, PhD³, Gulderen Yanikkaya Demirel, MD, PhD⁴, Ebru Cogendez Jr., MD⁵ and Mehmet Sipahi, MD¹, ¹Giresun University School of Medicine, Department of Obstetrics and Gynecology, Giresun, Turkey, ²Zeynep Kamil Women and Children Diseases Education and Research Hospital, Istanbul, Turkey, ³Yeditepe University, School of Medicine, Istanbul, Turkey, ⁴Yeditepe University, Faculty of Medicine, Istanbul, Turkey, ⁵Zeynep Kamil Women and Children Education and Research Hospital, Istanbul, Turkey
- P-820 EFFICACY OF A MODIFIED MICROSECURE VITRIFICATION (MS-VTF) PROCEDURE WITH DMSO-FREE SOLUTIONS APPLIED TO A DEDICATED BLASTOCYST BIOPSY/ VITRIFICATION-ALL/PGT-A PROGRAM: OPTIMIZING SINGLE HEALTHY TERM LIVE BIRTHS.** Mitchel C. Schiewe, MS, PhD¹, John B. Whitney, BS¹, Shane Zozula, B.S., T.S. (ABB)¹, Nancy L. Nugent, MS¹, C Terence Lee, MD², Ilene Hatch, MD³ and Robert E. Anderson, MD⁴, ¹Ovation Fertility, Newport Beach, CA, ²Ovation Fertility, Brea, CA, ³FCSC, Irvine, CA, ⁴SCCRM, Newport Beach, CA
- P-821 CAN THE MOST FREQUENT IMBALANCE SEGREGATION MODE FOR RECIPROCAL TRANSLOCATION CARRIERS BE PREDICTED**



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REPRODUCTIVE GENETICS

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AUTHOR AND SPOUSE/PARTNER DISCLOSURES INDEX: ORAL AND POSTER SESSIONS

All oral and poster presenters at the 2019 ASRM Scientific Congress were required to complete a disclosure form. Each abstract or video author is listed below along with any relationships their partners/spouses disclosed.

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Aasted, H.	Ferring Pharmaceuticals ³
Aboulghar, M. A.	Ferring ⁸ (travel expenses to attend conference covered by the company); IBSA ⁸ (travel expenses to attend conference covered by the company)
Abramova, N.	Merck Healthcare KGaA ³
Adeleye, A.	Carrot ²
Adsit, J.	Natera ³
Afeiche, M. C.	Nestle Research Center ³
Ahern, D.	Natera, Inc. ^{2,3}
Akimoto, S.	Shiyurigaoka general hospital ³
Al-Hendy, A.	abb-vie ⁶ ; Bayer ⁶ ; Myovant ⁶
Albertini, D. F.	Center for Human Reproduction ⁶ ; EMD Serono ⁷ ; Springer Nature ⁵
Albertsen, H. M.	Juneau Biosciences, LLC ^{1,2,3}
Allaire, C.	Abbvie ⁵ ; Allergan ⁵
Allignol, A.	Merck Healthcare KGaA ^{2,3}
Alouf, C. A.	Invitae ⁸ (PGT clinical specialist)
Amadoz, A.	Igenomix SL ³
An, R.	Animated Dynamics, Inc. ^{1,2,3}
Anderson, D.	FertilityIQ ¹
Ando, M.	Ferring ³
Arce, J.	Ferring Pharmaceuticals ³
Archer, D. F.	AbbVie ^{4,6} ; Agile Therapeutics ^{6,8} (Stock Options); Bayer Healthcare ⁴ ; Endoceutics ^{4,6} ; Exeltis ⁶ ; InnovaGyn ^{1,2} ; Merck ⁴ ; Myovant ⁴ ; ObsEva ⁴ ; Shionogi ⁴ ; TherapeuticsMD ^{4,6}
Arjunan, A.	Myriad Women's Health ³
Ascher-Walsh, C.	Expert Alternatives ¹
Ata, M. B.	Bayer ^{5,6} ; Merck KGA ^{5,6}
Augello, F. S.	Celmatix ³
Awwad, J.	Merck Serono ⁵ ; Rovi Pharmaceutical ⁴
Azziz, R.	Ansh Lab ⁶ ; Martin PET Imaging ^{2,8} (Advisory Board); Medtronics ⁶ ; Spruce Biosciences ⁶
Babu, R. T.	SpOvum Technologies Private Limited ³
Bachmann, G.	Medscape ⁵ ; prestige consumer health care ⁵ ; Up to date ⁵
Baldwin, K.	California Cryobank ³



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Baldwin, M.	Medicines 360 ⁸ (Research Co-I)
Ball, G.	EMD Serono ⁶
Ball, G. D.	Serono EMD ⁶
Barad, D. H.	Edwards Life Sciences ² ; Fertility Nutraceutical ⁸ (Receive Royalty based on Patent); Merck Manual ⁸ (Editorial)
Barnhart, K. T.	AbbVie ⁶ ; Bayer ⁶
Beckers, F. P.	Merck Healthcare KGaA, Darmstadt, Germany ³
Bedaiwy, M. A.	Abbvie ⁶ ; Allergan ⁶
Behr, B. R.	DX Now ⁸ (Consultant)
Benavent, M.	Juana Crespo ¹
Bendikson, K.	theralogix ⁸ (medical advisory board)
Bennett, N. E.	Boston Scientific ⁶ ; Coloplast ⁶ ; Endo ⁷
Berga, S. L.	AMAG Pharmaceuticals ⁵ ; Ava AG Advisory Meeting ⁵ ; Lupin Women's Health Advisory Board ⁵ ; UpToDate ⁵
Bergh, P. A.	Dibimed ² ; GE Healthcare ⁶ ; MedSoftware ²
Bernick, B.	TherapeuticsMD ^{1,2,3}
Bestel, E.	ObsEva SA ^{1,2,3}
Bhagavath, B.	Hologic Inc ^{4,8} (Scientific advisory board)
Bhandari, H. M.	Logixx Pharma ⁸ (Sponsorship to attend Fertility 2019 conference)
Bhargav, S.	SpOvum Technologies Private Limited ^{2,3}
Bhide, P.	Pharmasure Pharmaceuticals ^{4,8} (Local hospitality at ESHRE 2018)
Bilger, W.	Merck Serono GmbH ¹
Bilic, A.	Ava AG ³
Bilinski, M. E.	Novagen ³
Bissonnette, F.	Ferring ^{4,5} ; merk ⁴
Blockeel, C.	MSD, Ferring, Abbott, Gedeon-Richter ^{4,5}
Borini, A.	Ferring ⁸ (Advisory); MSD ⁷
Börner, M.	Bayer ³
Bosch, E.	Ferring ^{5,6,7} ; Gedeon-Richter ^{4,5,6,7} ; Merck ^{5,7} ; MSD ^{5,7} ; Roche ^{5,6,7}
Boulet, E.	Pacific Centre of Reproductive Medicine ³
Bradley, L. D.	Bayer ^{4,6} ; Boston Scientific ⁶ ; Elsevier ⁸ (royalty); gynesomics ⁶ ; Medtronic ⁶ ; Up to Date ⁵ ; Wolter Kluwers ⁸ (royalty)
Brezina, P. R.	Advagenix ^{1,2} ; Fertility Associates of Memphis ^{1,2,3}
Briton-Jones, C.	Roche ⁵
Brivanlou, A. H.	OvaNova ² ; Rumi Scientific ⁸ (SAB member)
Buck, K.	Roche Diagnostics GmbH, Penzberg, Germany ^{2,3}
Bühler, K. F.	Jenapharm GmbH ⁵ ; Merck Healthcare KGaA ^{5,6}
Burke, A. E.	Bayer ⁴ ; NICHD ⁸ (research contract)



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Burke, E. E.	Modern Fertility ^{2,3}
Bustillo, M.	Genetics&IVF Institute ²
Butler, S. A.	MAP IP Holding ¹
Calderón, G.	Embryotools ²
Callum, P.	California Cryobank ³ ; Tandem Genetics ¹
Cantineau, A. E.	Ferring BV ⁸ (visiting ESHRE congress Barcelona); Thermamex ⁸ (visiting a ESHRE congress Vienna)
Caplan, A. L.	Eli Lilly ^{5,8} (lecture); Janssen ⁸ (unpaid consultant); pfizer ^{5,8} (lecture); WIRB/copernicus ⁸ (advisory board)
Cardona, C.	Androvia ³
Carrell, D. T.	EMD Serono ⁷ ; Episona, Inc ^{1,2}
Carrera, M.	Ferring ⁶ ; MSD ^{6,7} ; Theramex ⁷
Casablanca, Y.	Celsion ^{2a}
Casper, R. F.	Abbvie ^{5,7} ; Circadian light ^{2b} ; Inception Lifebank ⁸ (Medical director); Reproductive Nutraceuticals ⁶ ; Teva ⁸ (Royalties); UpToDate ⁸ (Royalties)
Catherino, A. B.	EMD Serono, Inc. ³
Catherino, W.	Abbvie ⁶ ; Allergan ⁶ ; American Board of Obstetrics and Gynecology ⁵ ; American Society for Reproductive Medicine ⁵ ; Bayer ⁶ ; EMD Serono ^{3a}
Cedars, M. I.	Ferring Pharmaceutical ⁴
Chan, C.	EMD Serono ^{5,6} ; Merck ⁵
Chan, J. L.	Binto ⁸ (Scientific Advisor)
Chandarkar, S.	Spovum technologies pvt. Ltd. ³
Chang, C.	Prelude Fertility ² ; Reproductive Biology Associates ¹
Chavez-Badiola, A.	Darwin Technologies LTD ²
Chen, S.	Create Fertility Centre ³
Chen, S. H.	Cooper Genomics ⁶ ; Hologic ^{6,7} ; MedAnswers ² ; Ohana ⁶ ; Phosphorus ⁶
Chettier, R.	Rakesh N chettier ³
Chkonia, L.	Ovamedi LTD ²
Cholkeri-Singh, A.	AbbVie ^{6,7,8} (Research); American Regent, Inc ⁶ ; Bayer ^{6,7,8} (Research); Boston Scientific ⁶ ; Caldera Medical ⁶ ; Channel Medsystems ^{6,8} (Research); Espiner Medical Ltd ⁸ (Research); Hologic ^{6,7} ; Karl Storz ^{6,7} ; KLAAS LLC ⁸ (Co-Owner); Medtronic ^{6,7} ; Olympus ⁶
Chorich, L.	Augusta University ³
Chou, C.	Natera Inc ^{2,3}
Choudhary, K.	Previvo Genetics inc. ³
Christ, M.	Nestle Health Science ³
Clemente-Ciscar, M.	Igenomix ³
Clementi, C.	Celmatix ³
Colli, E.	Exeltis ¹
Constantine, G.	multiple pharma companies ⁶ ; Population Council ⁶ ; TherapeuticsMD ⁶



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Cooper, A.	Celmatix ⁸ (<i>Scientific Advisory Board</i>); Ferring ⁵
Copel, J. A.	Jubel LLC ⁶
Copperman, A. B.	Progyny ¹ ; Sema4 ¹
Cordts, E. B.	Ferring Pharmaceuticals ⁵ ; Merck Group ^{5,6}
Costa-Borges, N.	Embryotools ²
Coticchio, G.	Excemed ⁵ ; Merck ⁵
Cozzolino, M.	Fundacion IVI ¹
Creinin, M. D.	Danco ⁶ ; Estetra ⁶ ; Exeltis ⁶ ; HRA Pharma ⁴ ; Lupin ⁶ ; Medicines360 ^{4,6} ; Merck & Co. ⁶ ; Sebela ⁴
Crespo, J.	Juana Crespo ²
Crockin, S.	Amgen ^{6a} ; AstraZeneca ^{6a} ; BMS ^{6a,8a} (<i>Advisory Board</i>); Boehringer-Ingelheim ^{6a} ; Eisai ^{6a} ; exelixis ^{6a} ; Genentech-Roche ^{6a} ; Merck ^{6a,8a} (<i>Advisory Board</i>); Novartis ^{6a,8a} (<i>Advisory Board</i>); Pfizer ^{8a} (<i>Advisory Board</i>); Werewolf ^{8a} (<i>Stock options</i>)
Culwell, K. R.	Evoform Biosciences ¹
Daftary, G. S.	Ferring Pharmaceuticals Inc. ¹
Dang, V. Q.	MSD (Merck Sharp and Dohme) ⁴
de los Santos, M.	MSD ⁵
Diamond, M. P.	Advanced Reproductive Care ^{2,8} (<i>Board of Directors</i>); Bayer, ObsEva, AbbVie ⁸ (<i>Institutional Contract</i>); Seikagaku, AEGEA, ARC Medical Devices ⁶
Diaz-Gimeno, P.	Ferring, MSD, Angelini ^{7,8} (<i>Training programe speaker</i>)
Dietz, A. C.	bluebird bio, Inc. ^{2,3}
Dindinger, E.	University of Colorado Anschutz Medical Campus ³
DiNonno, W.	Natera, Inc ^{2,3}
Dixon, R.	Biospecifics ⁶
Dobson, L. J.	Counsyl ⁸ (<i>Clinical Advisory Board</i>)
Dodge, L. E.	FertiStrong ⁶
Dokras, A.	Abbvie ⁶ ; Ferring ⁶ ; Medtronic ⁶
Domar, A. D.	Abbott ⁵ ; Aliz Health Apps ¹ ; EMD Serono ⁵ ; Ferring ^{4,6} ; FertiCalm LLC ¹ ; FertiStrong LLC ¹ ; Merck ⁷
Dominguez, J.	Ferring ⁷ ; Gedeon- Richter ⁷ ; Merck ^{6,7} ; MSD ⁶
Doody, K. J.	Ferring Pharmaceuticals ^{6,7} ; INVO Bioscience ^{1,2}
Doody, K. M.	Ferring Pharmaceutical ^{6a,7a} ; INVO Bioscience ^{1a,2a}
Dorfmann, A.	Fairfax EggBank ³
Douglas, N. C.	Extend Fertility ⁸ (<i>Part-Time Employee</i>); Modern Fertility ⁶
Drakeley, A. J.	Liverpool Women's NHS Foundation Trust, UK ^{5,8} (<i>received meeting attendance support from Ferring, Merck, Pharmasure and Gideon-Richter. Honoraria from Ferring. None concerning abstract submission</i>)
Dreyer, K.	Guerbet ⁶
Dubouloz, R.	ObsEva ^{2,3}



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Dukhovny, D.	Clearview Consulting ⁶ ; Vermont Oxford Network ^{5,6,7}
Dupree, J. M.	Blue Cross Blue Shield of Michigan ⁴ ; Lipocine ²
D'Hooghe, T.	Merck Healthcare KGaA ³
Edelman, A.	Merck ^{4,8} (Trainer)
Eisenberg, D. L.	ACI Clinical ^{6,8} (Chair of DSMB for phase 3 trial); FemaSys ² ; Medicines 360 ⁶ ; Merck ⁵
Eisenberg, M. L.	Dadi ² ; Gilead ⁶ ; Roman ² ; Sandstone Diagnostics ² ; Underdog ²
EL Kasmi, I.	Clinique Ovo ³
Epperson, C. N.	Abbott Laboratories ^{2a} ; Abbvie, Inc ^{2a} ; Asarina Pharma ⁶ ; Bristol Myers Squibb ² ; Johnson & Johnson ^{2a} ; Merck & Co, Inc ² ; Sage Therapeutics ^{4,6}
Estes, S. J.	Abbvie ^{6,7,8} (research support); Obseva ⁸ (research support)
Esteves, S. C.	Gedeon-Richter ⁷ ; Merck ⁷
Farland, L. V.	Merck & Co. ⁵ ; Smith & Nephew ^{2a}
Faulkner, N.	Invitae ³
Fernández-Sánchez, M.	Ferring Pharmaceuticals ⁷
Ferrando, C. A.	UpToDate, Inc ⁸ (royalties)
Ferrando, M.	Anecova ⁶ ; Ferring ⁷ ; Gedeon Richter ⁷ ; IVI Clinics ^{1,2,3} ; Merck ⁸ (Congresses attendance)
Fiddler, M. B.	Insight Medical Genetics ^{1b,2b,3b}
Fields, R. A.	Fairfax EggBank ³
Filonenko, A.	Bayer AG ³
Fischer, R.	MERCK ⁵
Fleischer, K.	ferring ^{4,5} ; goodlife ^{4,8} (fee for lecture); merck-serono ⁴
Flores, V. A.	Abbvie ⁷ ; Society of Reproductive Investigation-Bayer Discovery Grant ^{4,8} (This is a grant given to Yale University to support my research)
Flores-Saiffe Farias, A.	New Hope Fertility Center ³
Forman, E. J.	Ferring Pharmaceuticals ⁷
Foster, E. D.	Ferring Pharmaceuticals ³
Fox, J. T.	Lehigh University ⁴
Gada, R.	ReUnite Rx ^{6b}
Garbarini, W. N.	TMRW Life Sciences, Inc. ^{1,2,3}
Garcia, C. M.	Texas Fertility Center ³
García-Peiró, A.	cimab and DXnow ^{2a}
Garcia-Velasco, J. A.	Merck, MSD, Ferring, Gedeon Richter, Theramex ^{4,7}
Gardner, D.	Vitrolife AB ⁴
Gemzell-Danielsson, K.	Bayer, Merck/MSD, Gedeon Richter, Azanta, Exeltis, HRA-Pharma, Natural Cycles ⁵
Gerlinger, C.	Bayer AG ³
Gershman, S. T.	Massachusetts Cancer Registry ⁸ (Staff)
Gillispie, V.	AbbVie ⁶ ; Lecturio ⁸ (Royalties for USMLE Step 1 Preparation Lectures)



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Ginsburg, E. S.	Advance Medical ⁶ ; Biomed Central ⁵ ; Sanders and Parks ⁶ ; Upto Date ⁵
Glass, S.	Invitae ³
Gleicher, N.	Fertility Nutraceuticals, LLC ^{2,8} (Receives patent loyalty); OvaNova, LLC ^{2,8} (Co-owner); US patents ⁸ (Listed as co-inventors on a number of US patents); Various pharma and medical device companies ^{4,5,8} (Received research support, travel funding and lecture fees)
Go, K. J.	TMRW Life Sciences ^{2,6}
Goldberg, J.	Myriad Women's Health ³
Golding, G.	Natera ³
Gomez, C.	Igenomix SL ³
Gonzalez-Monfort, M.	Igenomix S.L. ⁸ (Part-time employed)
Goodale, B. M.	Ava AG ^{6b}
Göthberg, M.	Ferring ^{3b}
Gotteland, J.	ObsEva ^{1,2,3}
Graham, J. R.	CCB ⁶
Graham, S.	TherapeuticsMD ^{3,8} (Stock Options)
Grainger, D. A.	AbbVie ⁷
Greenberg, R.	TMRW Life Sciences ^{2,6}
Greenwood, E. A.	EMD Serono ⁴
Grifo, J. A.	Inception Fertility ²
Grill, E. A.	Aliz LLC ⁸ (Co owner); Donor Egg Meeting ⁵ ; FertiCalm ⁸ (Co owner); FertiStrong ⁸ (Co owner); Merck ⁷
Gris, J.	Ferring laboratory ⁶
Groenewoud, E.	Titus healthcare ⁶
Guedes, S.	Merck Healthcare KGaA ³
Ha, S.	Pfizer ^{3a}
Haahr, T.	Merck KGaA ⁵ ; Osel inc. ⁴
Haberland, C.	Bayer AG ³
Hacker, M.	Renovia ⁸ (Medical Advisory Board)
Haefner, H. K.	Prestige Consumer Healthcare, Inc. ⁶
Hall, J. M.	Life Whisperer ¹ ; Presagen ¹
Hamaki, A.	Shinyurigaoka general hospital ³
Hamamah, S.	Ferring, Gedeon Richter ^{4,5}
Hamvas, G.	Ava AG ³
Han, C. S.	Jubel Health ¹
Hariton, E.	EverNow ⁸ (Medical Advisor)
Hashimoto, S.	Kitazato ⁴ ; Merck ⁴
Hatipoglu, B.	merck ⁷ ; novonordisc ⁶
Havelock, J.	Obs EVA ^{5,8} (Phase 3 new drug study)



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Haworth, L.	Center for Innovative GYN Care ⁶
Hayward, B.	EMD Serono, Inc. ³
Healey, M.	Monash IVF ^{2a}
Heiser, P. W.	Ferring Pharmaceuticals ³
Hendon, N.	IVFMD ³
Herreros, J.	IVIRMA ¹
Hesla, J. S.	NewEra Pharmacy ² ; ORM Fertlity ^{1,2,3} ; Sequence4 ^{6,2}
Hickman, C.	Apricity ¹ ; Cooper surgical, Apricity, Hamilton Thorne, vitrolife, Ferring, Merck Serono, TMRW, Attieh Medical, Parallabs, Cook, Spectrun, Salveapp ^{5,6,7,8} (Advisory Board); TMRW ⁸ (Advisor)
Hill, M. J.	Ohana Biosciences ⁸ (Research Advisor)
Hirshfeld-Cytron, J. E.	Natera ⁷
Hoidal, J. R.	Cantex Pharmaceuticals ²
Honig, S.	Coloplast ⁶ ; Endo Pharmaceuticals ^{6,7}
Hornstein, M. D.	Abbvie ⁸ (Unpaid consultant); Aetion ⁶ ; Up to Date ⁵ ; WINFertility ⁶
Horton, M.	Merck ^{5,7}
Hotaling, J.	Abbvie, Novartis, Pfizer, Sanofi/genzyme regeneron ^{6a,7a} ; Andrio360 ² ; Boston Scientific ⁴ ; ENDO pharmaceuticals ⁴ ; Nanonc ² ; StreamDx ²
Howard, B.	Evoform Biosciences ³
Howard, K. L.	Natera, Inc. ^{3,8} (option to hold stock)
Howards, P. P.	ContraVac ⁸ (Owned stock)
Howles, C. M.	Gedeon Richter ⁶ ; Theramex ⁶
Hudgens, J. L.	Applied medical ⁷
Huete Ferriz, H.	IVI RMA ¹
Humberstone, A.	ObsEva SA ^{2,3}
Hund, M.	Roche Diagnostics ^{2,3}
Hunsche, E.	Myovant Sciences GmbH ^{3,8} (Stock Options Holder)
Hunter Cohn, K.	Celmatix ³
Hurley, E. G.	Innoviva, Inc. ^{2a} ; Theravance Biopharma, Inc. ^{2a}
Hurtado, S. M.	Abbvie ^{5,7,8} (Research Principal Investigator); Allergen ⁸ (Research Principal Investigator); Bayer ⁸ (Research Principal Investigator); Femasys ⁸ (Research Principal Investigator); Merk ^{5,7} ; Myovant ⁸ (Research Principal Investigator); Obseva ⁸ (Research Principal Investigator)
Huynh, H. T.	LifeAire Systems ⁸ (Partner and Part-time Employee)
Iles, R. K.	MAP Sciences ¹
Ishihara, O.	Ferring ⁶ ; Merck Serono ^{6,7}
Isley, L.	California Cryobank ³
Jahangiri, S.	CReATe Fertility Centre ³
Jalalian, L.	UCSF Center for Reproductive Health ³



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Jalas, C.	Foundation for Embryonic Competence ³
Jasper, M. J.	PerkinElmer Health Sciences (Australia) Pty Ltd ³
Jasulaitis, S.	EMD Serono ⁷
Jenkins, T. G.	Nanonc ²
Jensen, J. T.	Abbvie ⁸ (research support to OHSU); Bayer ^{6,8} (research support to OHSU); Cooper Surgical ⁶ ; Dare ⁸ (research support to OHSU); Estetra SPRL ⁸ (research support to OHSU); Medicines360 ⁸ (research support to OHSU); Merck ^{6,8} (research support to OHSU); Sebela ^{6,8} (research support to OHSU)
Jian, L.	DIAsource ImmunoAssays SA, Belgium ^{8b} (This company provided the assay kit)
Jimenez-Almazán, J.	Igenomix ^{1,3}
Jobanputra, V.	FEC ⁸ (Consultant)
Johansen Taber, K.	Myriad Women's Health ³
Johnson, R.	Progenity ³
Johnson, S.	SPD Development Company Ltd ^{1,3}
Jonker, D. M.	Ferring Pharmaceuticals ¹
Jukic, A.	Theralogix ⁸ (Vitamin D supplements from this company were donated for a clinical trial of which I am PI.)
Kadoch, I.	Yadtech ²
Kaiser, U.	apnimed ⁶ ; Ferring ⁴ ; Natesto ⁶
Kalaghan, L.	CCRM Boston ³
Kaneshiro, B.	Gynuity Health Projects ⁴ ; Merck Sharpe Dohme ⁴ ; Mithra Pharmaceuticals ⁴ ; National Institutes of Health ⁴ ; Sebela Pharmaceuticals ⁴ ; Uptodate ⁶
Kaseniit, K. E.	Myriad ³
Kashanian, J. A.	Roman Health ⁶
Kavoussi, P. K.	AYTU Biosciences ⁷
Kavoussi, S. K.	AbbVie ⁷
Keefe, D. L.	Illumina ⁶ ; March of Dimes ⁴ ; Origio ⁶
Kendall Rauchfuss, L. M.	Texas Instruments ^{3a}
Khair, A. F.	Ferring Pharmaceuticals ³
Kiehl, M.	Natera, Inc ³
Kijacic, D.	Natera ^{2b,3b}
Kikuchi, S.	Kyono ART Clinic Takanawa ³
Kim, J. J.	Abbvie ⁶ ; Intuitive ⁵
Kimble, T. D.	AbbVie ⁷ ; Antiva ⁴ ; Exeltis ⁴ ; Inovio ⁴ ; Lupin ⁷ ; Medicines360 ⁴ ; Merck ⁷ ; Mithra ⁴
Klein, B. M.	Ferring Pharmaceuticals ³
Klein, J.	rmaofny ³
Kloos, B.	Androvia LifeSciences ⁸ (Part Time Employee)
Knowles, T. G.	Fertility Focus Ltd ^{2,8} (Receive royalties from the Company, co-founded the Company.)



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Knox, K.	Coppe Healthcare Solutions ^{1,2}
Knudtson, J.	Bayer ⁴ ; Endometriosis Foundation of America ⁴ ; Merck ⁶
Kodaman, P.	Ferring ⁶
Korevaar, T.	Berlin Chemie, Goodlife Healthcare, Quidel ⁷
Kostaras, K.	Idiotiko iatreio Konstantinos E Kostaras & SIA Iatrikh E.E. ^{2b}
Kudesia, R.	Progyny ⁶ ; Simple Health ⁶
Labarta, E.	Ferring ^{6,7} ; FINOX ^{4b} ; IBSA/Angelini ⁷ ; MSD ⁷ ; OvaScience ⁵
Lamb, D. J.	2019 5th PuJiang Reproductive Medicine Forum ⁸ (Travel costs); Cematix ⁸ (Scientific Advisory Board- No financial compensation); Ferring ⁵ ; Hanzhou first hospital of Zhejiang University ⁸ (Travel Costs); Shanghai General Hospital and Shanghai Andrology Society ^{5,8} (Travel costs); Suzhou University IVF and fertility center ⁸ (Travel costs)
Lambalk, C. B.	Ferring ⁴ ; Merck ⁴
Lambalk, N. B.	Ferring ⁴ ; Merck ⁴
Lanes, A.	BORN Ontario ⁶
Langley, M.	INVO bioscience ²
Langlois, M.	Merck Canada ⁴ ; Novo Nordisk ^{6,7} ; Valeant/Baush Health ^{6,7}
Lannon, J. N.	Freeze.Health ^{1,2,6}
Laufer, M. R.	AbbVie ⁶ ; NextJane Gen ⁶
Laven, J. S.	Danone ⁶ ; Euroscreen ⁶ ; Ferring ^{4,6} ; Merck Serono ⁴
Lazorwitz, A.	Merck & Co ⁴
Leahey, J.	Invitae ³
Leahy, C.	Modern Health Inc. ¹
Lecomte, V.	OBSEVA SA ^{2,3}
Lee, B.	Myriad Women's Health ³
Lee, C. T.	Ovation Fertility ²
Lee, H.	NYU LM fertility Center ³
Lee, M. S.	OssoVR ^{2a} ; Postcript.us ^{2a}
Leeners, B.	Ava ⁸ (Member of advisory board)
Legro, R. S.	AbbVie ⁶ ; Bayer ⁶ ; Ferring ⁶ ; Fractyl ⁶ ; Guerbet ⁴
Leppert, P.	Duke University ⁸ (I am listed on a patent for CCH and the treatment of fibroids. It is signed over to Duke University)
Lesaint, C.	Clinique ovo ³
Letterie, G. S.	Progyny ⁶
Licciardi, F. L.	Prelude ²
Liebermann, J.	Cooper ⁶ ; Prelude ⁶
Lim-Harashima, J.	Myriad ³
Lipshultz, L. I.	AbbVie ⁶ ; American Medical Systems ⁷ ; Aytu Bioscience ⁶ ; Endo Pharmaceuticals ^{6,7} ; Lipocine ⁶



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Liu, R.	AbbVie ³
Lo, J.	Yale Medicine ³
Lok, J. J.	Merck ^{4,6}
Longobardi, S.	Merck KGaA ³
Lorenzi, D.	Novagen ³
Loumaye, E.	OBSEVA SA ^{1,2,3}
Lukes, A. S.	Abbvie ^{4,6,7} ; Allergan ⁴ ; Bayer ⁴ ; Ferring ⁴ ; Gynesonics ⁴ ; Merck ⁴ ; Mitsubishi ⁴ ; Myovant ^{4,6} ; Scynexis ⁴
Luque, J. C.	Progenity ³
Maalouf, W.	Parallabs ⁶
MacDonald, A.	Quickstep Analytics ^{1,2,8} (<i>Intellectual property holder</i>)
MacGillivray, W.	Merck KGaA ⁸ (<i>Independent Contractor</i>)
Macgregor, L.	ObsEva SA ^{2,3}
Mahony, M.	EMD Serono ³
Maisenbacher, M. K.	Natera ^{2,3}
Malik, M.	Sciex ^{3a}
Malikov, E.	Nestle Health Science ³
Manchise, R.	Trust Gnosis ³
Mania, A.	Kingâ€™s Fertility ³
Mannaerts, B.	Ferring Pharmaceuticals ³
Maor, R. U.	AIVF ¹
Marin, L.	Igenomix ³
Marsh, E. E.	Allergan ⁶
Martins, J. G.	inScience Communications ³
Masterson, T. A.	Aytu Biosciences ⁸ (<i>Add Board</i>); Salveo Health ⁶
Mateu-Brull, E.	IGENOMIX S. L. ³
Mathur, R.	Bausch ^{5a,6a,7a} ; Bausch Health ^{8a} (<i>Cedars sinai has a licensing agreement with Bausch</i>); Gemelli Biotech ^{2b} ; Naia Pharmaceuticals ^{2a,6a,8a} (<i>Cedars sinai has a licensing agreement with Naia</i>); Shire ^{6a} ; Synthetic Biologics ^{2a,6a,8a} (<i>Cedars Sinai has a licensing agreement with Synthetic Biologics</i>)
Matorras, R.	Angelini ⁶ ; Ferring ⁶ ; Merck Serono ⁶
Matsuo, K.	Chugai ⁵ ; Springer ⁸ (<i>text book contribution compensation</i>); VBL therapeutics ⁸ (<i>Expense for meeting attendance</i>)
Mbambas, E.	Assisting Nature ¹
McCulloch, C. E.	Amgen ⁸ (<i>Expert Witness</i>)
McCulloh, D. H.	American Association of BioAnalysts ⁵ ; Biogenetics Corporation ^{1,8} (<i>Part Time Employee</i>); Ferring Pharmaceutical Company ⁵ ; GranataBio ⁸ (<i>Advisory Board Member</i>); ReproART: Georgian American Center for Reproductive Medicine ^{1,6} ; Southwest Embryology Summit ⁵ ; Sperm and Embryo Bank of New York ^{1,8} (<i>Part Time Employee</i>)



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McDaniel, L. D.	Progenity, Inc. ³
McKain, L. F.	Myovant Sciences ^{2,3}
McKenna, G. J.	Novartis ⁶
McQueen, D. B.	Innovative Drive Corporation ^{6a}
Mellinger, U.	Bayer AG ³
Merhi, Z.	HOCATT LLC ⁶
Merkatz, R. B.	Population Council ³
Merrion, K.	Natera, Inc. ^{2,3}
Meseguer, M.	Ferring ⁸ (<i>Speaker fee</i>); MERCK ⁸ (<i>Speaker fee</i>); MSD ⁸ (<i>speaker fee</i>)
Messaoudi, S.	clinique ovo ³
Messerlian, G.	Ansh Labs ⁸ (<i>travel support</i>); Multiple Sclerosis Society ⁴ ; PerkinElmer ⁴ ; UptoDate ⁸ (<i>authorship stipend</i>)
Mijatovic, V.	Guerbet ^{4,7}
Milan, M.	IGENOMIX ³
Miller, C. E.	AbbVie ^{7,8} (<i>Research</i>); Blue Seas Med Spa ⁸ (<i>Co-Owner</i>); Espiner Medical Ltd ^{6,8} (<i>Research</i>); Gynesonics ^{2,6,8} (<i>Research</i>); Halt Medical Inc ² ; Karl Storz ⁸ (<i>Research</i>); Medtronic ⁶ ; Pacira Pharmaceuticals ⁶ ; Richard Wolf ⁶ ; Thomas Medical/Catheter Research Inc ⁵
Mills, J.	Boston Scientific ^{4,6} ; Endo Pharmaceuticals ^{4,6}
Mills, S. A.	WiserCare, Inc. ⁸ (<i>Freelance illustration for online patient decision aid modules</i>)
Milnes, R. C.	Fertility Focus Limited ¹
Missmer, S. A.	AbbVie ^{4,8} (<i>Advisory Board Member</i>); Department of Defense ⁴ ; Endometriosis Foundation of America ⁴ ; Marriott Family Foundations ⁴ ; National Institutes of Health ⁴
Mitwally, M. F.	Mohamed F. Mitwally ⁸ (<i>Own patent on the use of aromatase inhibitors for the treatment of ectopic pregnancy, and other patents for the use of aromatase inhibitors for infertility treatment and other reproductive disorders</i>)
Modest, A. M.	Renovia Inc. ⁶ ; Tissue Regenix ⁶
Modrzejewski, K.	EMD Serono ³
Mohebbi, L.	Celmatix ³
Mol, B.	Guerbet ^{4,6} ; Merck ⁶ ; ObsEva ⁶
Montag, M. H.	Ferring AG ⁵ ; Merck GmbH ⁵ ; Vitrolife AB ⁶
Moody, M. A.	Androvia LifeSciences ³
Mor, A.	Yale University ^{3,8} (<i>Patent rights owner</i>)
Moravek, M. B.	Arthrex ^{6a} ; Probility Physical Therapy ^{6a} ; Team Rehab Physical Therapy ^{6a}
Moreno, I.	Igenomix ⁸ (<i>Part-time employee</i>)
Morgan, T. A.	Animated Dynamics, Inc. ^{1,2,3}
Morsy, H.	Assist university ⁸ (<i>Coauthor</i>)
Mottla, G. L.	EMD Serono ⁵
Mouriki, E.	Ava AG ³



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Muneyyirci-Delale, O.	AbbVie ⁴
Munne, S.	CooperGenomics ⁶
Murphy, A. P.	Life Whisperer ^{2,3}
Myers, S. A.	PerkinElmer ³
Nadal, A.	Previvo Genetics ^{3,4}
Naemi, H.	Myriad Genetics ³
Nagai, Y.	Varinos Inc ¹
Nagy, Z. P.	Cooper-Surgical / Origio ⁶ ; Prelude ²
Naik, R.	Elsevier ⁸ (Paid Web Content Editor)
Najmabadi, S.	Punta Mita Hospital ^{2,8} (Principle Investigator)
Nakajima, S. T.	Previvo Genetics, Inc. ⁶
Natarajan, L.	National Institute of Health ⁴
Nayot, D.	Future Fertility ⁶
Neff, L. M.	Novo Nordisk ⁴
Neitzel, D.	Invitae ^{2,3}
Nelson, A. L.	Agile Therapeutics ⁴ ; AMGA Pharma ⁶ ; Avion ^{5,6,7} ; Bayer ^{5,6,7} ; ContraMed/Sebela ^{4,6} ; CooperSurgical ^{5,6,7} ; Evofem ⁴ ; FHI MonaLisa ⁴ ; Merck ^{4,5,6,7} ; Pharmanest ⁶
Nelson, S. M.	Ferring ^{4,6,7} ; Merck ⁷ ; Roche ^{4,7}
Nelson, W.	Ferring Pharmaceuticals ³
Nichols, J. E.	Invo Bioscience ^{2,6}
Norman, R. J.	FertilitySA ^{1,2,3}
Olariu, A. I.	Medicines360 ³
Omurtag, K.	Medical Electronic Systems ⁶ ; Nestle ⁶
Ortega Madera, C.	New Hope Fertility Center ³
Ostermeier, G. C.	Androvia LifeSciences ^{2,3}
Owens, C. D.	AbbVie Inc. ³
Pacheco, A.	IVI MADRID ^{3a}
Paidas, M.	BioIncept, LLC ⁸ (research funding, scientific advisory board member, stock options); CSL Behring ⁴ ; GestVision ⁴ ; NovoNordisk ⁸ (consultant, webinar); Progenity ⁴ ; rEVO Biologics ⁴
Pal, L.	Abbott ⁸ (Advisory Board Member); AMAG ⁷ ; FLOHEALTH ⁶ ; GLG ⁶ ; Natera ⁸ (Advisory Board Member)
Papier, S. D.	NOVAGEN ⁸ (Medical Director)
Parente Barbosa, C.	Merck Serono and Ferring ⁴
Parfitt, D.	Celmatix ³
Parmegiani, L. L.	Cooper surgical, Irvine Fujifilm ⁴ ; NTERILIZER ²
Parry, P.	Parryscope Fertility ^{8b} (Intellectual property rights relating to a surgical technique and device)
Pastuszak, A. W.	Bayer AG ⁷ ; Endo Pharmaceuticals ^{4,6,7} ; Woven Health ^{1,2}



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Patel, P.	Aytu Biosciences ⁸ (Advisory Board); Nestle ⁶
Patrizio, P.	FertileSafe ⁸ (co-founder and consultant)
Pauletti, G.	Airway Therapeutics ⁶
Pellicer, A.	DIBIMED ^{1,2}
Penrose, L. L.	Reproductive Solutions Inc. (RSI) ^{1,2}
Perugini, D.	Life Whisperer ³
Perugini, M.	Life Whisperer ³
Petersdorf, K.	Bayer LLC ^{3b}
Peterson, C.	Clinical Innovations ⁸ (Royalty payments); TheraTarget ^{1,2}
Petrozza, J. C.	Boston Scientific ⁶
Peura, T.	Genea Biomedx ^{2,3}
Pfeifer, S.	Abbvie Pharmaceuticals ^{6a} ; Merck & Company ^{6a} ; Theralogix ^{6a}
Pirie, A.	Fertility Focus Limited ⁸ (Part-Time Company Employee)
Platt, L. D.	GE medical systems ^{4,7}
Pratt, P. F.	Coppe Healthcare Solutions ³
Prien, S. D.	RSI ¹
Protopsaltis, S.	PerkinElmer Health Sciences ³
Prusinski Fernung, L.	DePuy Synthes ^{8a} (Contractor)
Psathas, P. S.	Institute of life ²
Puscheck, E. E.	Abbvie ⁴ ; Allergan ⁴ ; Bayer ⁴ ; Femasys ⁸ (Clinical Events Committee for their device trial); Ferring ⁴ ; Obseva ⁴
Rabinovitch, L.	Medical Electronic Systems ⁶
Radoc, J. G.	Doris Duke Charitable Foundation (DDCF Grant # 2014194) ⁴ ; Elsevier ⁴ ; Genentech ⁴
Ramasamy, R.	Aytu Biosciences ^{4,6} ; Boston Scientific ^{4,6} ; Coloplast ^{4,6} ; Direx ⁴ ; Endo Pharmaceuticals ^{4,6}
Reis, F. M.	Ipsen ⁵
Richards, J. P.	Fulgent Genetics ⁶
Richter, E.	Merck Healthcare ¹
Richter, K. S.	EMDSerono ⁶
Rios, J. S.	Abbvie ⁷
Robinson, C.	Perkin Elmer Health Science Australia ³
Robinson, K.	Invitae ^{2,3}
Rodrigo, L.	Igenomix ³
Rodriguez, M.	Bayer ⁵ ; Cooper Surgical ⁵ ; Merck ⁵
Roman, L. D.	Tempus Labs ⁶
Romashko, A.	Coppe Healthcare Solutions ⁶
Rombauts, L.	Ferring NV ^{4,6} ; Monash IVF Group ²
Rosen, M. P.	DxNow ⁸ (Scientific Advisory Board); Future Fertility ⁸ (Scientific Advisory Board)



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Rosenthal, A.	Fertiga NV ^{1,2}
Rubio, C.	Igenomix ³
Runge, A.	UCSF ³
Ryan, A.	Natera ^{2,3}
Ryu, S.	University of Colorado Anschutz Medical Campus ³
Sakkas, D.	Cooper Surgical ⁸ (Scientific Advisory Board); EMD Serono ⁷ ; Ohana ⁸ (Advisory Board)
Sakuraba, Y.	Varinos Inc. ^{1,2}
Salasin, R.	University of Pennsylvania Reproductive Endocrinology and Infertility ³
Salva, C. R.	AstraZeneca Pharmaceuticals ^{3a}
Sánchez González, D. J.	New Hope Fertility Center ³
Sanderson, R. K.	CooperSurgical/CooperGenomics ³
Santamaria, X.	Igenomix ⁸ (Par-time Company Employee)
Santoro, N.	Astellas/Ogeda ⁸ (Scientific Advisory Board); Menogenix, Inc. ⁸ (Scientific Advisory Board, Stock options)
Santos-Ribeiro, S.	Besins ^{5,7} ; Ferring ^{5,7} ; MSD ^{4,5,6,7}
Sasaki, K.	Espiner Medical ⁸ (Contracted Researcher)
Sayme, N.	Gynemed ^{8a} (Distributor)
Schadt, E. E.	Berg Pharma ⁶ ; Sema4 ¹
Schinfeld, J. S.	Androvia ⁸ (Unpaid research)
Sebra, R. P.	Sema4, A Mount Sinai Venture ^{2,8} (50% employment as VP of Technology Development)
Seckin, T. A.	Endometriosis Foundation of America (501-C Non-profit organization) ⁸ (Founder and Medical Director)
Seidler, A.	Merck Healthcare KGaA, Darmstadt, Germany ³
Seifer, D. B.	Rutgers Medical School/MGH ⁸ (receive royalties from licensing agreement between Rutgers Medical School/MGH and Beckman-Coulter for the use of AMH in determining ovarian reserve)
Seitz, C.	Bayer AG ^{2,3}
Seli, E.	Foundation for Embryonic Competence ^{4,6}
Shafiee, H.	Phoenix Biosystems ⁸ (We received a SBIR funding through this company for developing a smartphone-based system for male infertility testing. I am also the inventor of the technology used in this grant.); VerilityCo ⁸ (This company licensed our technology on portable semen analysis for animal breeding applications.)
Shah, N. J.	Metropolis health care Ltd ¹
Shapiro, B.	Ovation ²
Sharara, F. I.	Ferring Pharmaceuticals ⁷ ; Innovus Pharmaceuticals ² ; MAP Sciences ¹
Sharp, T. A.	ICON PLC ² ; TMRW Life Sciences Inc. ²
Shilaih, M.	Ava AG ³
Shin, P.	Promescent ²



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Shoskes, D.	Triurol ²
Shukla, K. S.	AllMS, Jodhpur, India ³
Sillman, J.	Roche Diagnostics International Ltd, Rotkreuz, Switzerland ³
Silverberg, K.	Abbvie ⁵ ; Ovation Fertility ^{1,2,8} (Director); Seikagaku ⁶
Simmons, K.	Merck ⁸ (Nexplanon trainer)
Simon, C.	Ferring ⁶ ; Igenomix ^{2,8} (Head of the Scientific Advisory Board); Merck ⁶ ; TEVA ⁶
Simon, J.	AbbVie, Inc., Allergan, Plc, Agile Therapeutics, Bayer Healthcare LLC., Endoceutics, Inc., GTx, Inc., Ipsen, Myovant Sciences, New England Research Institute, Inc., ObsEva SA, Palatin Technologies, Symbio Research, Inc., TherapeuticsMD, Viveve Medical ⁴ ; AbbVie, Inc., Allergan, Plc, AMAG Pharmaceuticals, Inc., Amgen, Ascend Therapeutics, Bayer HealthCare Pharmaceuticals Inc., CEEK Enterprises, LLC, Covance Inc., Dare Bioscience, Duchesnay USA, Hologic Inc., KaNDy/NeRRe Therapeutics Ltd., Mitsubishi Tanab ⁶ ; AbbVie, Inc., AMAG Pharmaceuticals, Inc., Duchesnay USA, Novo Nordisk, Shionogi Inc., TherapeuticsMD ⁷ ; Sermonix Pharmaceuticals. ²
Simpson, A. J.	Androvia LifeSciences ³
Singh, S. S.	Abbvie ^{4,5,6,8} (Investigator for Elagolix trials); Allergan ^{4,5,6,8} (Investigator for UPA trials (Venus)); Bayer ^{4,5,6,8} (Investigator for the Vilaprisan trials); Cooper Surgical ⁸ (Trial for Endosee Device); Hologic ^{5,6}
Sinha, A.	Ferring Pharmaceuticals Inc ⁶
Smeenck, J. M.	Ferring ⁵ ; Merck ⁵
SMITH, J. F.	Mojo inc. ²
Smith, Y. R.	UpToDate ⁸ (Receive royalties)
Soliman, A. M.	AbbVie Inc. ³
Soma, J.	Advance Biofactures Corporation ³
Sommer, G.	Sandstone Diagnostics ^{1,2,3}
Stewart, E. A.	Bayer ⁶ ; Myovant ⁸ (Steering Committee Member with remuneration); Peer View ⁵ ; UpTo Date ⁵
Stratton, P.	Allergan ⁸ (Toxin and funds for study monitoring are provided by Allergan through a clinical trials agreement with NIH)
Stuart, G. S.	Medicines 360 ⁴
Stull, P.	BAtH Fertility UK ⁶ ; Capex ² ; CAre Fertility - Tx ⁶ ; Care Fertility UK ⁶ ; Ferring Pharmaceuticals ⁶ ; Fertility Dynamics ¹ ; Reproductive Medicine Institute ⁶ ; Seattle Reproductive Medicine ⁶ ; Shady Grove Fertility ³
Sufen, C.	DIAsource ImmunoAssays S.A.(Belgium) ^{8b} (The company provides vitamin D monitoring kits)
Suimin, Z.	DIAsource ImmunoAssays S.A. ^{8b} (The company provides vitamin D monitoring kits)
Sutcliffe, A. G.	Zogeniz Inc ⁸ (member of IDMSC)
Swarm, S. R.	Freeze.Health ¹
Tal, R.	Celmatix ⁴
Talebi, A.	Tehran university of medical sciences ^{4a}
Tan, Y.	Reproductive and Genetic Hospital of CITIC-Xiangya ^{3a}



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Tanrikut, C.	Ferring Pharmaceutical ⁸ (Advisory Board); New England Cryogenic Center ⁸ (Medical Director)
Taske, H.	Care Fertility UK ⁶ ; Center for Assisted Reproductive Endocrinology ⁶ ; Ferring ⁶ ; Reproductive Medicine Institute ⁶ ; Seattle Reproductive Medicine ⁶ ; Shady Grove Fertility ⁶
Tay, L.	PKI ³
Taylor, H. S.	Abbvie ⁵ ; Dot ⁸ (Unpaid consultant); Onseva ⁵
Taylor, R. N.	AbbVie ⁶ ; Ferring ⁴ ; ObsEva ⁶
Teal, S.	Bayer Healthcare ⁴ ; Medicines360 ⁴ ; Merck & Co ^{4,5}
Terhaar, C.	Progenity, inc ^{2,3}
Terrill, P.	Cytel Inc ^{3b}
Terry, K. L.	Capsuletech ^{3a}
Teruel, J.	Juana Crespo ¹
Thomas, E.	Natera ³
Thomas, M. A.	Bayer ⁴ ; Evofem ⁴ ; Medicines 360 ⁴ ; NICHD ⁴ ; NIH ⁴ ; Sebella Pharmaceuticals ⁴ ; Veracept ⁴
Tirado, E. E.	ReproSource-Quest Diagnostics ³
Tournaye, H.	GSK ^{3a}
Traversa, M. V.	Genea ³
Travis, A. J.	Androvia LifeSciences ^{2,6}
Trawick, E. C.	Xylyx Bio, Inc. ²
Trent, M.	Church and Dwight (Trojan) ⁸ (Scientific Advisory Board); Hologic ⁴
Tulandi, T.	Abb-Vie ⁸ (Ad-hoc Advisor)
Ubaldi, F. M.	Ibsa ^{5,6} ; Merck Serono ^{5,6} ; MSD ^{5,6}
Udoff, L.	Fairfax Egg Bank ³
Ulas, T.	Merck Pte Ltd ³
Uren, P. J.	Episona ³ ; Progenity ³
Urrutia, A. R.	LifeAire Systems ³
Valbuena, D.	Igenomix ^{2b,3b}
Van Hecke, E.	Fertiga ^{1,2}
Vasilopoulos, Y.	IOLIFE ²
Vazquez-Pacheco, S.	NEW HOPE FERTILITY CENTER ³
Verhoeve, H.	Ferring ⁶
VerMilyea, M. D.	irvine scientific ⁶
Walters-Sen, L.	Invitae ^{2,3}
Ward, K.	Juneau Biosciences LLC ^{1,3} ; Predictive Laboratories Inc. ⁶
Warren, K.	PerkinElmer ³
Watson, A.	TMRW Lifes Sciences ¹



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Weddell, S.	SPD Development Company ³
Wellock, C.	Celmatix Inc. ³
Wells, D.	IVI-RMA ³
Welty, L. J.	CVS Health ^{2a} ; Merck & Co, Inc. ^{2b} ; Pfizer International, Inc. ²
Wemmer, N.	Natera ^{2,3}
Wessels, C.	Embryotics ^{1b,2b}
Wessiepe, D.	Bayer ⁸ (<i>Employee of a company that provides statistical services to the organization.</i>)
Westhoff, C. L.	Bayer ⁸ (DSMB member); Leon Farma ⁴ ; Medicines 360 ⁴ ; Merck ⁸ (DSMB member); Sebel ⁴
Weyand, A. C.	Aptevo ⁶ ; Bayer ⁶ ; Kedrion ⁶ ; Novo Nordisk ⁴ ; Portola ^{2b}
Whitney, J. B.	Ovation Fertility ³
Wild, R. A.	Amgen ⁶ ; NICHD ⁴
Williams, S. Z.	Abbvie ^{6,7} ; Ava ⁶ ; Cooper Surgical ⁶ ; Medtronic ^{4,6}
Wilmarth, M.	Ovation Fertility ³
Winston, N.	Merck ^{2a}
Wong, K.	Myriad Genetics ³
Wootton, J.	Myriad Women's Health ³
Worriolow, K. C.	LifeAire Systems ³
Worthington, A. K.	Modern Fertility ^{6,8} (<i>Medical Advisory Board Member</i>)
Wright, J. D.	Clovis Oncology ⁵ ; Tesaro ⁵
Xie, Y. A.	Univfy ³
Xu, J.	Columbia Fertility Associates ³
Yamashita, H.	Miraca Research Institute G.K. ³
Yang, H.	Analysis Group ⁸ (<i>Analysis Group received funding from AbbVie for the conduct of this study.</i>)
Yang, L.	ABBVIE INC ² ; Bluebird Bio ²
Yao, M. W.	Univfy Inc. ^{1,2,3}
Young, S. L.	Abbvie Phramaceuticals ⁶ ; Ferring Pharmaceuticals ^{4,6}
Younis, A. H.	Assuit university ⁸ (<i>Co author</i>)
Yurttas Beim, P.	Celmatix ^{1,2,3}
Zhan, Y.	Foundation for Embryonic Competence ³
Zhang, J. J.	New Hope Fertility Center ¹



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AUTHOR AND SPOUSE/PARTNER DISCLOSURES INDEX: VIDEO SESSIONS

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⁶Paid Consultant ⁷Speaker's Bureau ⁸Other ^aPartner/Spouse ^bBoth

Bachmann, G.	Medscape ⁵ ; prestige consumer health care ⁵ ; Up to date ⁵
Chavez-Badiola, A.	Darwin Technologies LTD ²
Cholkeri-Singh, A.	AbbVie ^{6,7,8} (Research); American Regent, Inc ⁶ ; Bayer ^{6,7,8} (Research); Boston Scientific ⁶ ; Caldera Medical ⁶ ; Channel Medsystems ^{6,8} (Research); Espiner Medical Ltd ⁸ (Research); Hologic ^{6,7} ; Karl Storz ^{6,7} ; KLAAS LLC ⁸ (Co-Owner); Medtronic ^{6,7} ; Olympus ⁶
Ferrando, C. A.	UpToDate, Inc ⁸ (royalties)
Garbarini, W. N.	TMRW Life Sciences, Inc. ^{1,2,3}
Go, K. J.	TMRW Life Sciences ^{2,6}
Hudgens, J. L.	Applied medical ⁷
Kodaman, P.	Ferring ⁶
Meseguer, M.	Ferring ⁸ (Speaker fee); MERCK ⁸ (Speaker fee); MSD ⁸ (speaker fee)
Miller, C. E.	AbbVie ^{7,8} (Research); Blue Seas Med Spa ⁸ (Co-Owner); Espiner Medical Ltd ^{6,8} (Research); Gynesonics ^{2,6,8} (Research); Halt Medical Inc ² ; Karl Storz ⁸ (Research); Medtronic ⁶ ; Pacira Pharmaceuticals ⁶ ; Richard Wolf ⁶ ; Thomas Medical/Catheter Research Inc ⁵
Ortega Madera, C.	New Hope Fertility Center ³
Patel, P.	Aytu Biosciences ⁸ (Advisory Board); Nestle ⁶
Pellicer, A.	DIBIMED ²
Ramasamy, R.	Aytu Biosciences ^{4,6} ; Boston Scientific ⁶ ; Coloplast ^{4,6} ; ENDO Pharmaceuticals ⁶
Sánchez González, D. J.	New Hope Fertility Center ³
Sasaki, K.	Espiner Medical ⁸ (Contracted Researcher)
Sharp, T. A.	ICON PLC ² ; TMRW Life Sciences Inc. ²
Vazquez-Pacheco, S.	NEW HOPE FERTILITY CENTER ³
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The Final Program for the ASRM 2019 Scientific Congress & Expo in Philadelphia will be posted online and available for download prior to, during, and after the Scientific Congress & Expo. The downloadable online PDF program will include complete, detailed program information, including the Daily Schedule and CME/CE materials (needs assessments/descriptions, learning objectives) for all CME activities (Pre-Congress courses, plenary lectures, symposia, interactive sessions).

* * *

**THERE WILL NOT
BE A PRINTED
FINAL PROGRAM BOOK**



For your convenience, there will be free wireless mobile hotspots in the Convention Center.

At the Congress, you will receive a printed copy of:

- Pocket calendar with room numbers
- Pocket listing of oral abstracts with room numbers
- Pocket listing of poster abstracts
- Listing of exhibits

ASRM's free mobile app will list all of the activities, including oral and poster abstracts, with their room numbers for both the Pre-Congress program and the Scientific Congress. The complete abstracts will be available on the:

- Mobile app
- Fertility and Sterility website
- Fertility and Sterility mobile app
- ASRMCongress.org website



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What are you missing?

Have you looked at ASRM members benefits lately? We are consistently adding value for thousands of physicians and other professionals in the field of reproductive medicine. Boost your career with:

News and Education

- **Access to cutting-edge research in the Society's peer-reviewed journals, *Fertility and Sterility* and the *Journal of Assisted Reproduction and Genetics***
- Opportunities for continuing education in person and online through ASRM airLearning™ modules, webinars, micro-videos, and certificate courses
- Free access to ASRM QBoost, a program to test your knowledge on the go
- Electronic bulletins from our Washington D.C. office that help you stay up to date on the latest reproductive health policy news
- Access to printable Practice and Ethics committee guidelines

Specials and Discounts

- **Free CME, CE and PEER credits through ASRM airLearning™**
- Members-only rates on ASRM products
- **Discount on ASRM Scientific Congress and pre-Congress course registrations**

Professional Development and Recognition

- Networking opportunities including ASRM Connect, ASRM's online community platform
- **Input into shaping policies and protocols through member groups and ASRM's access to care efforts**
- Listing of providers in the new and improved "Find a Healthcare Professional" directory on www.ReproductiveFacts.org
- Eligibility to receive ASRM research grants and awards

Online Resources for Members Only

- Access to an online member login account, which includes current membership information and member group updates
- **Full access to the ASRM Membership Directory**
- Access to ASRM's Career Center to help you find qualified job candidates while enjoying member discounts on job postings—or to help you find that perfect job

Learn more by visiting www.asrm.org and clicking on the Membership tab.



Joining is easy!

- Join online at www.asrm.org.
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- Or join by visiting us at the ASRM booth during our annual Expo or at other selected meetings throughout the year.



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Society of Reproductive Surgeons at ASRM has been offering Fellowship in MIGS since the early 1990s. During this yearlong training, Fellows will have exceptional clinical training and exposure to uncommon pathologies in a high volume surgical program, which will prepare them for a successful career.

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For more information contact: Dani Mosley | Phone: (205) 978-5000, ext. 137 | Email: dmosley@asrm.org

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Exhibitors as of 9/11/2019



BE SURE TO VISIT THE EXPO HALL

Monday, October 14 9:00 am – 5:00 pm

Tuesday, October 15 9:00 am – 5:00 pm

Wednesday, October 16 9:00 am – 2:00 pm

For safety reasons and in order to maintain the scientific nature of the display, no children under the age of 16 (except infants under 6 months of age carried in arms at all times) will be allowed in the Expo Hall. Strollers and infants in backpacks are not permitted in the Expo Hall or Poster Hall at anytime.

Certificate Of Attendance

Proof of attendance is available on request from J Spargo at the registration desk. Continuing Education Credit information is located in the front of the Pre-Congress Course syllabi, and the Congress Program and online.

Admission Badges

Name badges will be issued for the Pre-Congress and Scientific Programs and are required for admission. Spouse/guest badges will be issued and are required for admission to spouse/guest activities and the Expo Hall.

Photo/Audio/Video Recording

Photographing or audio/video recording of any session for personal or commercial purposes without permission is prohibited.

Morning Poster Sessions

Poster Sessions will be held on Tuesday and Wednesday mornings from 7:00 a.m. until 8:45 a.m. Complimentary continental breakfast will be available. No reservations are required.





EXHIBIT COMPANY LISTING

AbbVie – Booth: 1549

26525 N. Riverwoods Blvd.
Mettawa, IL 60045
www.abbvie.com

AbbVie is a global, research-based biopharmaceutical company which combines the focus of a leading-edge biotech with the expertise and structure of a long-established pharmaceutical leader. AbbVie is committed to using unique approaches to innovation to develop and market advanced therapies that address some of the world's most complex and serious diseases.

Academy of Adoption & Assisted Reproduction Attorneys – Booth: 1842

859 Riverside Dr, #11 Greenwood, IN 46142-4100
www.adoptionart.org

Fellows of the Academy of Adoption and Assisted Reproduction Attorneys (AAAA) are located

abbvie
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throughout the United States, Canada and abroad. Our Fellows are required to have significant experience and skill in the field of family building through assisted reproductive technology. The Academy is the largest and most accessible resource for finding a highly qualified assisted reproduction attorney.

Agilent Technologies, Inc. – Booth: 1938

2850 Centerville Road Wilmington, DE 19808
www.agilent.com

3 Tests. One Workflow. Complete IVF Insights. Visit us at Booth 1938 and learn about a new comprehensive solution for PGT. Agilent OnePGT is the only genome-wide NGS-based solution that integrates Preimplantation Genetic Testing (PGT) for single gene disorders (PGT-M), translocations (PGT-SR) and aneuploidies (PGT-A) in a single workflow with verified automated calling. Visit us, tell us about your PGT requirements, get a cool gift+ and enter a drawing for a best-selling book.

386

67%

of people cited cost and lack of insurance as the biggest barriers to receiving infertility treatment¹

Discover how the majority of clinics nationwide break through these barriers with patient financing options offered through LendingClub Patient Solutions.

Don't miss out! Visit our booth to learn about an exciting registration offer available only at ASRM 2019.

Booth #815

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Visit lendingclub.com/fertility
Call 800-630-1663

¹ Source: Reproductive Medicine Associates of New Jersey. "2018 Infertility Trends National Survey" <https://www.rmanj.com/wp-content/uploads/2018/04/Infertility-Trends-National-Survey-2018-RMANJ.pdf> (accessed August 2019).

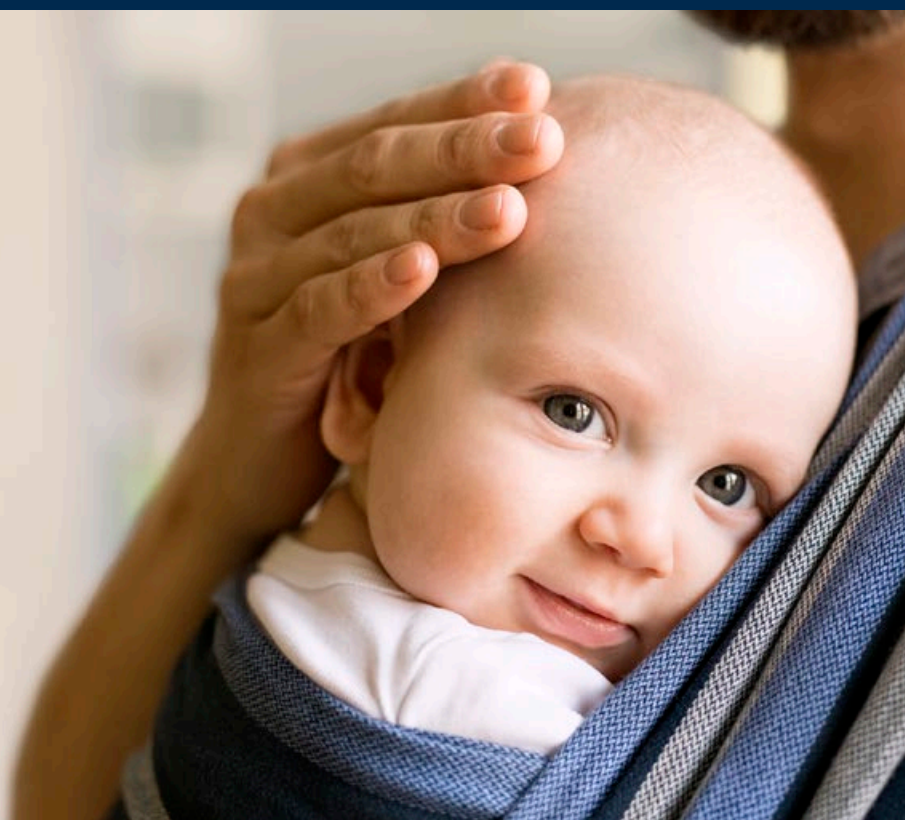


EXHIBIT COMPANY LISTING

Allwin Medical Devices Inc. – Booth: 631

3305 E Miraloma Ave, Ste 176 Anaheim, CA 92806-1935
allwinmedical.com

Allwin Medical Devices is based out of Orange County, California, USA. We are CE and ISO certified. Our vast range of Women's health products includes Single & Double Lumen Ovum Pick Up Needles with or without Flushing, Embryo Transfer Catheters, Intra Uterine Insemination Catheters, Fallopian Tube Recanalization Catheters, Hystero Salpingography Catheters, Endometrial Biopsy Sampling Systems, Aspiration Needles, and Vitrification Straws including open and closed systems. Visit us at booth #631.

Alto Pharmacy – Booth: 618

1400 Tennessee Street, Unit 2 San Francisco, CA 94107
www.alto.com

Alto is a full-service pharmacy without the brick and mortar. We've served more than 15,000 fertility patients, and we deliver prescriptions to your door for free, seven days a week. We work with your doctor and insurance to always get you the best price, and pharmacists are available via phone, text, email and app to answer questions. Deliveries are always discreet to protect your privacy.

America Egg Donor Bank – Booth: 2020

1625 Bridgeport West Covina, CA 91791-4115
americaeggdonorbank.com

American Egg Donor Bank is a third party assisted reproductive fertility company based in Southern California. Our team specializes in egg donation related services. We work with many IVF clinics and surrogacy companies. Our staff members have many years of hands-on experiences, recruiting only high-quality egg donors with a diverse selection. We believe that having a baby should be a wonderful experience. Please let us be with you every step of your new journey.

America Medic & Science

Booth: 1141

8321 219th St. SE
Woodinville, WA 98072-8019
americamedic.com



America Medic & Science AMS is an American nutraceutical company established in 2007 and headquartered in Seattle, Washington. We manufacture and distribute high quality, organic natural products and dietary supplements for all individuals and age groups. The leadership of our management team, which has a combined 3 decades of experience in pharmaceuticals, has led us to become known pioneers in the industry.

American Association of Bioanalysts – Booth: 2001

906 Olive St Ste 1200 Saint Louis, MO 63101-1448
www.aab.org

AAB's College of Reproductive Biology(CRB) represents embryologists and andrologists. The American Board of Bioanalysis(ABB) is the only CLIA-approved board that certifies embryologists and andrologists. AAB's CLIA-approved Proficiency Testing Service surveys Antisperm Antibodies, Sperm Count/Motility/Morphology/Viability, Embryology, Fertility Endocrinology, and PGS. The AAB Board of Registry also certifies embryology and andrology technologists.

American College of Obstetricians and Gynecologists (ACOG) – Booth: 2014

409 12th Street SW Washington, DC 20024
www.acog.org

Androvia LifeSciences – Booth: 1813

187 Mill Lane Mountainside, NJ 07092

Cap-Score evaluates a man's level of fertility by quantifying the number of sperm capable of generating a pregnancy. It measures the fundamental biological process that controls fertility & does so by proprietary technology that assesses sperm's capacity to fertilize an egg. The revolutionary Cap-Score analyzes sperm on the molecular level. It calculates the percent of sperm capable of fertilizing the egg. Cap-Score is the only test that can predict the man's ability to generate a pregnancy.



EXHIBIT COMPANY LISTING

Ansh Labs, LLC – Booth: 1241

445 Medical Center Blvd. Webster, TX 77598
www.anshlabs.com

Ansh Labs is a pioneer in diagnostics for women's health. Our AMH, picoAMH, Dried Blood Spot AMH, BMP-15 and GDF-9 immunoassays are used for ranging from preclinical biomarker studies to translational research to clinical diagnostics. We will feature MenoCheck, the first ever FDA cleared, clinically validated blood test to help physicians assess a woman's menopausal status. The test provides estimates of the time to final menstrual period, thus facilitating better preventive care.

ARC Fertility – Booth: 1308

20195 Stevens Crk Blvd Ste 100 Cupertino, CA 95014-2380
www.arcfertility.com

ARC® Fertility is a nationwide network of top fertility clinics offering discounted treatment packages and financing for patients, as well as tools and technology to help manage your practice. Founded by physicians in 1997, ARC is the established leader in providing resources and services to patients; the ARC Success Program, ARC Pharmacy Plan and the ARC Employer Program, and also offers ARCIS a powerful PM and EHR system built for fertility clinics.

Artisan Medical Solutions – Booth: 907

35 Casa Street, Suite 260 San Luis Obispo, CA 93405-1890
www.artisanfertility.com

The Artisan EMR is the complete cloud-based electronic medical records, laboratory management and practice management system, specialized for the fertility practice.

Asian Egg Bank – Booth: 1048

4910 Directors Place, Suite 320 San Diego, CA 92121
www.asianeggbank.com

Asian Egg Bank is dedicated to recruiting egg donors of Asian ancestry. Our donor database is comprised of hundreds of donor profiles, and we constantly recruit and cycle egg donors with exceptional qualities. In our quest to build the largest frozen egg bank inventory of Asian egg donors, we have the greatest selection of donors with East Asian heritage: Chinese, Japanese, Korean, Vietnamese, Filipino, etc. Our donors are also available for an exclusive, matched fresh cycle.

ASRM – Booth: 1327

1209 Montgomery Highway Birmingham, AL 35216-2809
www.asrm.org

ASRM is a multidisciplinary organization dedicated to the advancement of the science and practice of reproductive medicine. The Society accomplishes its mission through the pursuit of excellence in education and research and through advocacy on behalf of patients, physicians, and affiliated healthcare providers. The Society is committed to facilitating and sponsoring educational activities for the lay public and continuing medical education activities for professionals who are engaged in the practice of and research in reproductive medicine.

ASTEC Co. Ltd – Booth: 934

4-6-15 Minamizato Kasuya, Fukuoka 811-2207
www.astec-bio.com/global

Incubator manufacturer. If you are looking for incubators with the best quality, this is where to shop!

Ava Science, Inc. – Booth: 744

77 Geary Street, 5th Floor San Francisco, CA 94108
avawomen.com

Ava specializes in new developments in the field of medical technology related to female reproductive health by bringing together artificial intelligence and clinical research. The Ava bracelet is the firm's first product for the consumer market and uses state-of-the-art sensor technology together with clinically proven methods to pinpoint a woman's fertile days in real time. Ava has received USD 42.6 million of funding to date and is based in Zürich, San Francisco, Belgrade and Makati.

Axis Global Logistics – Booth: 1940

5901 West Side Avenue, Suite 503 North Bergen, NJ 07047
www.axisg.com

Axis Global Systems, LLC, a privately held supply chain solutions provider since 1997, creates fully integrated supply chain and critical transport solutions that are specifically tailored in every detail to address the complex needs of the many sectors of the life sciences community. Our customized solutions optimize costs and efficiencies while ensuring the highest level of quality and providing clients with real-time information at every step via industry-leading web-based technology.



EXHIBIT COMPANY LISTING

Aytu Bio Science – Booth: 1040

373 Inverness Parkway, Suite 206
Englewood, CO 80112-5898
www.aytubio.com

MiOXSYS (the Male Infertility Oxidative System) is a rapid in vitro diagnostic semen quality test that accurately measures oxidative stress. MiOXSYS is CE Marked and available in many countries outside the U.S. as an aid in the diagnosis of male infertility. MiOXSYS is currently undergoing clinical study in the U.S. in pursuit of a 510k de novo clearance.

BabySentry – Booth: 1734

1121 S Meyler Street
San Pedro, CA 90731-3534
310-832-2223 | info@babysentry.com
www.babysentry.com



BabySentry is the leading Management System designed for the Assisted Reproduction Technology workplace. The software is composed of a central database Electronic Medical Record (EMR) with multiple interfaces and connections to analyzers, third-party software, web portals, smart phone apps, referral labs and national registries. Modules are structured to cover all functionalities of ART and affiliated practices.

BabyTree Surrogacy – Booth 950

www.babytreesurrogacy.com

Basepair – Booth: 912

415 Madison Ave Fl 4 New York, NY 10017-7945
www.basepairtech.com

Basepair develops an enterprise NGS analysis software solution, with a special focus in reproductive medicine. Our platform can scale to 1000s of analysis in an hour, run custom pipelines and generate data and reports in multiple formats. The entire software is API driven and integrates with any existing IT system. We have influential paying customers in research (Harvard Medical School, Stanford, NYU, etc), biotech and a molecular diagnostic companies.

Bayer – Booth: 1843

100 Bayer Blvd, PO Box 915 Whippany, NJ 07981
www.bayerus.com

Bayer is a global Life Sciences leader in cardiopulmonology, hematology, neurology, oncology and women's health. Building on a 150-year legacy in healthcare, Bayer is committed to improving patient lives by developing innovative therapies and delivering first-in-class educational and support programs to meet their needs. For more information, visit www.bayer.us.

BioMatrix Specialty Pharmacy – Booth: 2013

210 Rock Road Glen Rock, NJ 07452
www.biomatrixsprx.com

BioMatrix Specialty Pharmacy offers comprehensive, nationwide specialty pharmacy services and digital health technology solutions for patients with chronic, difficult to treat conditions. Our growing family of companies unites leaders in the specialty pharmacy industry to improve health and empower patients to experience a higher quality of life.

BONRAYBIO CO., LTD. – Booth: 743

4F., No118, Gongye 9th., Dali Dist., Taichung
www.bonraybio.com

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Brown & Brown Lone Star Insurance Service Inc. Booth: 1739

1717 N. Sam Houston Pkwy. #115 Houston, TX 77038

Brown & Brown, unlike most other large insurance brokers, specializes in serving those involved with the reproductive medical and infertility treatment process. Our company's Fertility Insurance Program® is the leading provider of such insurance to physicians, clinics, and agencies participating in the human egg donation, gestational carrier (surrogate mother), and in-vitro fertilization process.



EXHIBIT COMPANY LISTING

California Cryobank – Booth: 1717

11915 La Grange Avenue
Los Angeles, CA 90025
www.cryobank.com



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California Cryobank Life Sciences has helped create over 65,000 families around the world. California Cryobank offers private reproductive tissue storage and cord blood banking via CBR. Stringent quality controls and a diverse catalog of highly-screened sperm and egg donors have earned us the confidence of physicians worldwide.

Cambridge University Press – Booth: 2028

1 Liberty Plaza - 20th floor New York, NY 10006
www.cambridge.org/us/academic

Cambridge University Press is a not-for-profit publisher that dates from 1534. We are part of the University of Cambridge and our mission is to unlock people's potential with the best learning and research solutions. Visit our stand to discuss publishing with us, browse our publications and get a 20% discount.

Capital One – Booth: 1726

15000 Capital One Drive Richmond, VA 23238
www.capitalone.com

If you're not earning rewards on your business credit card, you're leaving money on the table. Capital One Spark Business cardholders earn unlimited 2% cash back on all products to fuel their business growth. Apply today at booth 1726 to qualify for a \$500 one-time spend bonus. Credit approval required.

Carle Physician Group – Booth: 1657

611 W. Park St Urbana, IL 61801
carleconnect.com

Carle is a vertically-integrated health system serving more than 1.4 million people in 14 communities across east central Illinois. Named one of America's 50 Best Hospitals in 2019 by Healthgrades, Carle Foundation Hospital is a 433-bed regional hospital and is home to the area's only Level I Trauma Center and Level III Perinatal Services. Carle Physician Group is physician-led and includes 500+ physicians in 80 specialties and subspecialties providing patient-focused, world-class care.

ASRM 2019 Corporate Member Council

Industry-sponsored

Luncheon Symposium

Tuesday, October 15, 2019

12:15 pm – 1:15 pm • Room PCC 204A



Non-ticketed event. Includes complimentary boxed lunch and limited seating for first 200 attendees.
This is a Non-CME activity.

Making the Choice to Connect: Your Work Matters. Tell People Why

Brenda MacArthur, Ph.D.

Alan Alda Center for Communicating Science

Learn to communicate complex topics in clear, vivid and engaging ways. You are invited to participate in an introductory session and explore the Alda Center's dynamic and interactive approach to communication. The high energy facilitator will show you new possibilities for sharing your science and your knowledge.

EXHIBIT COMPANY LISTING

Carrot Fertility – Booth: 737

47 Lusk Street San Francisco, CA 94107
www.get-carrot.com

Carrot Fertility is providing a novel approach for access to care in the USA and in over 30 countries. Multinational companies are enabled and supported through Carrot to provide their employees with access to employer-sponsored funds that assist to cover their fertility care and infertility-related expenses, including adoption and gestational carrier services. Carrot navigators assist employees to personally decide on their best options when attempting to reach their family-forming goals.

Catalyst Healthcare Marketing – Booth: 635

4203 Jubilee Drive Flower Mound, TX 75028-3033
www.catalysthcm.com

Need a marketing strategy that sparks growth? Let us be the catalyst that boosts your visibility and increases your patient load. At Catalyst Healthcare Marketing, we help practices achieve their business goals. Our cohesive marketing services set you apart from your competitors, build brand recognition and keep your business moving forward. Our experienced team can serve as your virtual marketing department or seamlessly integrate with your existing marketing team.

Celloxess, LLC – Booth: 613

830 Bear Tavern Rd Ewing, NJ 08628

In the crowded space of nutritional and antioxidant therapies, CellOxess revolutionized the field with its signature, science-driven, personalized nutraceutical formulations to optimize male fertility. The resolution of oxidative stress in both genders is critical prior to a successful conception and pregnancy. The company's flagship products, FertiliX®, will be showcased; with "state of the science" male & female preconceptual/prenatal formulations, personalized for optimum safety and efficacy.

Center for Surrogate Parenting, Inc. – Booth: 614

125 West Street Suite # 302 Annapolis, MD 21401
www.creatingfamilies.com

CSP is a world-renowned agency specializing in creating families through surrogacy for almost 40 years; working with the very best fertility doctors, attorneys and mental health professionals to welcome more than 2,600 babies. With offices in California and Maryland, CSP supports couples and individuals worldwide to help them realize their dream of being parents. CSP's commitment, expertise and professionalism is recognized and respected throughout the fields of surrogacy and infertility.

Centers for Disease Control and Prevention - Division of Reproductive Health – Booth: 2011

4770 Buford Hwy NE, F-74 Atlanta, GA 30341
www.cdc.gov/ART

U.S. Centers for Disease Control and Prevention's (CDC) Division of Reproductive Health has a long history of public health surveillance and research in women's health and fertility, adolescent reproductive health, and safe motherhood. Since 1995, Division's Assisted Reproductive Technology (ART) Surveillance and Research Team maintains National ART Surveillance System (NASS), which collects detailed information on in vitro fertilization treatments from all clinics in the United States.

Chart MVE – Booth: 945

3055 Torrington Drive Ball Ground, GA 30107-4686
www.chartbiomed.com

The MVE 816P-2T-190 High Efficiency Freezer is designed with the fertility market in mind. This unique inventory system incorporates a two-tier storage tray that utilizes an access portal to allow removal of product stored on the lower level. Also ask about Chart MVE's complete Straw-Visotube Inventory System and special SUC Racks.

Cicerodx, Inc. – Booth: 1839

5075 Warner Ave Ste 202
Huntington Beach, CA 92649-4059
www.receptivadx.com

CiceroDx, Inc. is the exclusive provider of ReceptivaDx (BCL6) testing for failed IVF, unexplained infertility and recurrent pregnancy loss. Working with over 300 fertility centers in the US and around the world, Our BCL6 marker provides answers for your most challenging cases, even in situations where PGS tested embryos and optimized transfer windows have failed to yield a pregnancy. Stop by to review the latest published clinical data and ongoing research via our NIH commercial grant.



EXHIBIT COMPANY LISTING

Coast Science – Booth: 1649

4653 Carmel Mountain Road,
Suite 308-123
San Diego, CA 92130-6650
www.coastscience.com



Coast Science® is a leader in the science & manufacturing of top-quality, nutraceuticals. We are the proud maker of premium Fertility Supplements since 2001. Our all in one Preconception Formulas: MFSg5 – The Male Prenatal™, Fertile One® PC 600 & Fertile One® PCOS 600 provide advanced nutrition based on science to optimize sperm or egg quality. Coast Science® is committed to optimizing fertility health & success for all fertility patients. Now Introducing she-ology™ for Women. Three new daily vitamin, antioxidant & herbal blends to relieve symptoms of Menopause, Peri-Menopause & PMS. Our newest line she-ology™ allows women to have the most advanced dietary supplements for natural health & hormonal balance throughout their cycles. Trusted & recommended by over 1500 Physicians worldwide in over 50 countries, for their couples who are trying to conceive. All Coast Science® products are scientifically based & made in the USA, with the highest quality manufacturing & ingredients.

ColdStash – Booth: 1745

879 Hopkins Hill Road West Greenwich, RI 02817
www.coldstash.com

ColdStash is a global business providing market-leading LN2 storage solutions. We help our clients to operate more efficiently, saving space and costs, with products such as the VitroStash and VitroStash MAX. The MAX is a dewar and canister system that increases storage capacity by 500% with only 25% footprint increase, significantly reducing cost per patient. In addition to the MAX, ColdStash is excited to unveil new offerings in addition to the suite of Cryogenic products already available.

Cook Medical Incorporated – Booth: 1227

750 Daniels Way
Bloomington, IN 47402
www.CookMedical.com/rh



Cook Medical has been collaborating with physicians and researchers for over 50 years to create minimally invasive medical devices. And for over 30 years, Cook's Reproductive Health division has brought that collaboration and experience to reproductive medicine. Cook Reproductive Health offers products for diagnostic imaging, assisted reproduction, maternal-fetal medicine, obstetrics, and gynecology. In addition to creating medical devices, Cook Reproductive Health is committed to advancing education, research, and collaboration with physicians in order to enhance patient care for women and men throughout their reproductive lives—from diagnosis to delivery and beyond. Visit www.cookmedical.com/web/reproductive-health to learn more about Cook Reproductive Health.

Cooper Surgical – Booth: 1301

95 Corporate Dr
Trumbull, CT 06611-1350
www.coopersurgical.com



Bringing Knowledge to Life Around the world clinics are working to improve outcomes for their patients. At CooperSurgical, we create lasting partnerships based on individual challenges, demanding customized solutions tailored to optimize chances of success. We support and advance clinics by offering evidence-based training and solutions, designed to improve clinical performance and efficiency across the entire spectrum of ART. At CooperSurgical, we offer a unique approach within the fertility and genomics industry. Visit our websites to find out more at fertility.coopersurgical.com or contact us at Telephone 1-800-648-1151.

Coppe Laboratories – Booth: 842

229N1870 Westwood Dr. Waukesha, WI 53186-1302
www.coppelabs.com

Coppe Laboratories' TRAC-6 Immunohistochemistry test is the only commercially available test able to identify active Human Herpesvirus-6 (HHV-6) in endometrial tissue. HHV-6 has been associated with > 40% of unexplained infertility and other gestational problems. Our strong reputation for providing specialized HHV-6 testing has made us a preferred reference laboratory for Transplant Centers and Children's Hospitals across the country.



EXHIBIT COMPANY LISTING

CRC Press / Taylor & Francis Group LLC – Booth: 626

6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2713
www.crcpress.com

CRC Press is a premier global publisher of medical textbooks, professional books and journals. Stop by our booth for a 20% discount & free global shipping.

Crown Fertility – Booth: 1113

524 West 4th Street,, Suite C, Perris, CA 92570
crownfertility.com

Crown Fertility is grounded in science with evidence-based ingredients, FDA certified and inspired by nature to impact the foundation of the fertility journey to build more families naturally together with trusted healthcare professionals. Putting back control in the hands of individuals by providing essential supplements that aid in building your long-term vision for your family's future. We envision the future of real health problems to be conquered by easily accessible and natural solutions.

Cryoport Systems – Booth: 1906

17305 Daimler Street Irvine, CA 92614
www.cryoport.com

Cryoport is proud to provide your patients our CryoStork® shipping solutions to ensure their precious reproductive materials are handled with care from clinic to clinic. Our CryoStork® services are the fastest and most reliable solutions on the market through our scientifically-enhanced technology and unparalleled logistics expertise. When successful IVF outcomes depend on safe transportation, Cryoport is the partner you can trust.

Cryos International - USA – Booth: 1127

2200 N Alafaya Trl Ste 550 Orlando, FL 32826-3995
usa.cryosinternational.com

Cryos International Sperm and Egg Bank aims to ensure a wide selection of high-quality, extensively screened frozen donor sperm and frozen donor eggs from all races, ethnicities and phenotypes. Cryos is the world's largest sperm bank and first free-standing, independent egg bank in the United States. Through partnerships and research, Cryos continues to improve and expand its global services of helping to provide the gift of family.

Cryotherm, Inc – Booth: 1939

5126 South Royal Atlanta Dr
Tucker, GA 30084

Dadi – Booth: 955

55 N 5TH ST BROOKLYN, NY 11249-3298
www.dadikit.com

Dadi is a men's health company that's reinventing the fertility industry. With its FDA-licensed, at-home male fertility test and sperm storage kit, the company provides a secure solution that is 10x cheaper and easier than traditional clinics. By creating a simple and accessible way for men to learn about their reproductive health, Dadi ensures that couples can use healthy, younger sperm when they're ready to start a family — putting them in charge of their own futures.

Dancing Eggs, Inc. – Booth: 954

2231 Kelmscott Court West Lake Village
Westlake Village, CA 91361
www.dancingeggs.com

Dancing Eggs is a young and enthusiastic company based in Shanghai, China. Our main purpose is to help professional Chinese women who seek for egg freezing and other fertility treatments in the U.S.. We offer medical consultation, bilingual services and transparent prices to make egg freezing approachable for our clients.

Del Rey Medical

Booth: 620

6657 Vista del Mar Los Angeles, CA 90293
www.delreymedical.com

Digital Instruments, Inc. – Booth: 2027

580 Ensminger Rd
Tonawanda, NY 14150

digitalinstruments.com/products/digtempmon.html
Digital Instruments specializes in temperature monitors and control systems. Since 1977, customers have turned to Digital Instruments' proven solutions when accuracy is critical. Our Partners- Leo McNamara of Legendary Efforts with 40+ yrs experience in medical/IVF Sales and Service Esco Technologies Inc. laboratory, medical and pharmaceutical equipment Digi TempAlert wireless temperature monitoring/ alarming systems CryoSave 2.0 and CryoSave XM advanced cryogenics temperature monitors/alarms.



EXHIBIT COMPANY LISTING

DotLab – Booth: 1042

655 Montgomery St, Floor 7 San Francisco, CA 94111
dotlab.com

Endometriosis is a complex, heterogeneous disease that may present inconsistently across patients. By measuring disease-specific biomarkers and applying machine learning, DotEndo provides the information you need to attribute her symptoms.

DxNow, Inc. – Booth: 717

401 Professional Drive, Suite 130
Gaithersburg, MD 20879
zymotfertility.com



The future of fertility has arrived. ZyMöt™ Sperm Separation Devices are innovative lab tools that efficiently isolate the healthiest, rapidly progressive sperm, to help achieve the best possible outcomes. Easy to adopt, simple to use, ZyMöt devices are the first of their kind and FDA-approved. Learn more at zymotfertility.com.

Eastern Virginia Medical School – Booth: 839

651 Colley Ave. Norfolk, VA 23507-1627
www.evms.edu

EVMS online M.S. and Ph.D. in Reproductive Clinical Science programs for those involved in the practice of assisted reproductive technology laboratory, seeking advanced degrees. Providing multidisciplinary graduate level education through online and hands-on training designed to meet the ever-changing demands of clinical and research aspects of assisted reproductive laboratory medicine.

Egg Bank America/Egg Donor America – Booth: 1942

4316 Evergreen Lane Annandale, VA 22003
eggdonoramerica.com

Egg Bank America and Egg Donor America are fortunate to have one of the largest, most diverse pools of Donors. We have batches of frozen eggs ready for immediate shipment, as well as over 600 Donors available for a fresh or frozen cycle. We will ship eggs to your fertility center at no additional charge. We also guarantee at least 1 embryo to transfer. Egg Donor America and Egg Bank America have helped thousands of people worldwide build their families over the past 20 years!

Eggschain – Booth: 2005

1221 S. Congress Avenue #432 Austin, TX 78704
eggschain.com

Eggschain provides the fertility industry a doctor-approved online database of donor gametes/embryos/sperm, to simplify the process for patients attempting to find the optimal match. It saves you and your staff time, and provides the patients a better matching experience. Chain of custody and other solutions forthcoming! We exist to preserve the hopes of life. Come to talk us at Booth number 2005, at ASRM. Visit our website at www.eggschain.com and call us at 512-630-7833 for more information.

eIVF/PracticeHWY.com – Booth: 726

1212 Corporate Drive, Suite 200
Irving, TX 75038

www.eivf.org



PracticeHwy.com is an international leader in healthcare software which serves approximately 130 practices and clinics worldwide. In 2002, they launched eIVF, one of the first electronic medical record (EMR) products focused on Reproductive Endocrinology and Infertility (REI) practices. Since then, eIVF has been utilized for one million cycles. It was, and still continues to be, the only web-enabled, fully customizable software system dedicated to REI practices. Known for its pursuit of excellence in the fertility industry, PracticeHwy.com has seen trajectory growth throughout the years by continuously developing new software solutions which support all aspects of a fertility clinic and laboratory's workflow and operations.

Elsevier – Booth: 1340

Radarweg 29 Amsterdam, North Holland 1043NX
www.elsevier.com

Elsevier is a global information analytics business that helps scientists and clinicians to find new answers, reshape human knowledge, and tackle the most urgent human crises. For 140 years, we have partnered with the research world to curate and verify scientific knowledge. Today, we're committed to bringing that rigor to a new generation of Elsevier platforms.

Embryo Donation International – Booth: 1743

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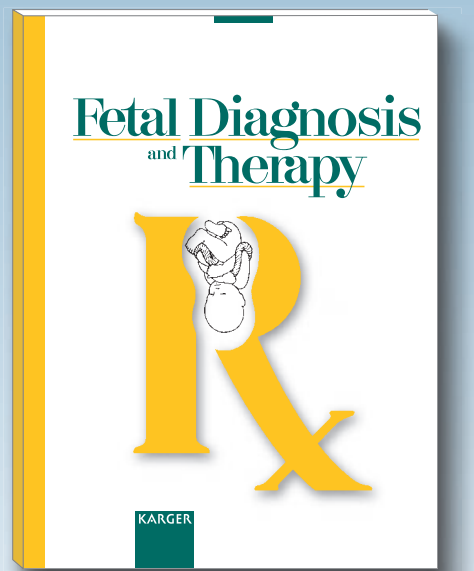


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Embryo Options – Booth: 911

211 W. Jefferson Ave. Naperville, IL 60540
www.embryooptions.com

Embryo Options is a web based application that automates cryo-billing, and streamlines the disposition process for embryos, eggs, and sperm. Embryo Options is designed to increase cryo-billing collections rates, reduce specimen abandonment, and provide patients easier access to donate embryos back to the practice to help other couples achieve a pregnancy.

Embryodirector.Com – Booth: 1900

19296 Stone Oak Parkway San Antonio, TX 78258
www.embryodirector.com

Making embryologists, andrologists, and nursing great with the worlds only One on One Hands On Training along side a working IVF laboratory. Now offering online training with technique demonstrations. Each in person and online module is complete with certifications. Now partnering with ART Compass, an essential tool for; evaluating the technique, competency and process in the IVF Lab through a mobile app at your fingertips. <https://www.linkedin.com/company/art-compass/about/>

Embryotech Laboratories, Inc. – Booth: 1709

140 Hale Street Haverhill, MA 01830-3985

An ISO-17025 Accredited contract test laboratory catering to the human reproductive industry, Embryotech™ continues to provide the latest quality control assays including Mouse Embryo Assay, Endotoxin (Gel-Clot & Kinetic), an array of Human Sperm Assays. Embryotech™ is also the leader in providing all stages of fresh and cryopreserved mouse embryos, hamster ova to clinics and universities around the world aiding in technician training and proficiency testing.

EMD Serono – Booth: 1512

One Technology Place
Rockland, MA 02127

www.emdserono.com/en

A LEADER IN SCIENTIFIC INNOVATION,

EMD Serono- the North America biopharmaceutical business of the science and technology leader, Merck KGaA, Darmstadt, Germany- offers therapies and patient support services for specialty conditions, like infertility, multiple sclerosis (MS), HIV-associated wasting and growth disorders. Our support for the patients we serve goes well beyond the medications we manufacture.



Empower Pharmacy – Booth: 1249

5980 W Sam Houston Pkwy N, Ste 300 Houston, TX 77041
www.empowerpharmacy.com

Empower Pharmacy provides healthcare practitioners and patients with high-quality formulations and outstanding customer service. Our experienced pharmacists collaborate with patients and healthcare practitioners to provide innovative solutions for health and wellness. With state-of-the-art facilities that tout the latest cGMP equipment, cleanrooms, environmental controls, and professional staff we are proud to be a leader in the compounding pharmacy industry.

ENCI Eggbank – Booth: 1456

2428 Santa Monica Blvd Ste 301
Santa Monica, CA 90404-2046

ENCI not only offers the widest selection of Asian donors available in the market but is committed to building the most professional egg bank for egg freezing and storage. Our mission is to blend the most advanced assisted reproductive technology with personalized and compassionate care to help women preserve fertility and guardian their family dream.

Encompass Rx – Booth: 1148

2700 Northeast Expressway NE, Suite B800
Atlanta, GA 30345
encompassrx.com

Encompass Fertility specializes in navigating fertility benefits to offer a comprehensive solution to manage specialty drug costs that maximize the medical and prescription benefit, lowering the overall cost of treatment for the patient. We strive to supply every provider and patient with the confidence, ability, knowledge, and a dedicated team they need to feel empowered and comfortable throughout their fertility journey.

Endometriosis Association – Booth: 2033

8585 N 76th Pl. Milwaukee, WI 53223-2633
EndometriosisAssn.org

The Endometriosis Association is an international nonprofit organization, founded in 1980, that supports and educates patients, the public, and professionals, and conducts seminal research which has changed understanding of the disease. Research has included collaboration with NIH and a long-term partnership with Vanderbilt. Association President Mary Lou Ballweg and the Association have authored numerous publications including four books, scientific articles, brochures in 31 languages.



EXHIBIT COMPANY LISTING

EngagedMD – Booth: 1909

1875 Connecticut Avenue NW Washington, DC 20009
engaged-md.com

We help fertility practices and networks improve the patient and practice experience. Our simple web application provides a remotely guided experience for education and consent. Practices struggle to deliver a consistent patient experience. Long consultations, phone calls to staff, in-clinic classes and paper documentation are all barriers and burdens to both practitioners and patients. Our learning and consent management systems are designed specifically for fertility clinic's unique workflows.

Esco Technologies Inc. – Booth: 1727

903 Sheehy Drive, Suite F
Horsham, PA 19044
www.escomedicalgroup.com



Esco Medical is a leading manufacturer and innovator of high-quality equipment such as benchtop incubators, ART workstations, and time-lapse incubators. We are continuously developing advanced technologies to meet the increasing demand of the IVF industry. Products are designed using the Silent Embryo Hypothesis as a guiding principle: the less disturbed an embryo can remain, the better its developmental potential will be. Most products are designed in Denmark and made in the EU.

European Society of Human Reproduction and Embryology (ESHRE) – Booth: 1639

Meerstraat 60 Grimbergen, 1852
www.eshre.eu

The European Society of Human Reproduction and Embryology (ESHRE) is an international non-profit organization of 8000 members, whose main objective is to promote the study of human reproduction. ESHRE organizes the world's major event in reproductive science and medicine each year, publishes leading journals and guidelines, organizes lifelong learning programs and certification schemes, and monitors European IVF data.

Exeltis USA, Inc. – Booth: 2018

180 Park Avenue Suite 101
Florham Park, NJ 07932
www.exeltisusa.com

Fairfax Cryobank & Fairfax EggBank – Booth: 927

3015 Williams Dr Suite 102 Fairfax, VA 22031-4623
www.fairfaxeggbank.com

Fairfax Cryobank and Fairfax EggBank are the trusted choice for premier donor sperm and donor eggs around the world. We are dedicated to providing gamete donors of superior quality. Our in-house experts have more than 30 years of experience in safe and successful reproductive tissue banking. We are committed to exceptional quality control, advanced screening protocols, and excellent customer service. For more information on Fairfax Cryobank, visit www.FairfaxCryobank.com or call 703-698-3976.

Fairhaven Fertility Health – Booth: 1010

1410 11th St. Bellingham, WA 98225-7309
www.fairhavenhealth.com

The #1 brand of scientifically validated products to support ART protocols and help couples conceive. Our FH PRO antioxidant-based fertility supplements are the most comprehensive formulas available with over 25 ingredients at actual therapeutic dosages. FH PRO for Men was shown in a recent clinical study to improve progressive motility by 122%, count by 33% and reduce DNA fragmentation by 20%. And our BabyDance Fertility Lubricant is the only sperm-friendly lubricant made without parabens.

Family Source Consultants – Booth: 712

200 W. Madison, Suite 2100
Chicago, IL 60606
www.familysourcesurrogacy.com



Family Source Consultants is a leader in the world of third party reproduction as a comprehensive egg donation and gestational surrogacy agency. Currently headquartered in the surrogacy friendly city of Chicago, IL – the agency has 25 employees and additional offices across the United States in Miami, Florida; Dallas, Texas; and Manhattan Beach, California. Family Source opened its doors in January of 2007, and from day one the agency's focus has always been on empathy and compassion for individuals walking this alternative path to parenthood, with the goal of providing each client with quality, individualized, heart-based service. With over twelve years of work as a comprehensive agency, Family Source is connected with other leaders in the field – working closely with many world-renowned clinics and attorneys on a regular basis. Family Source recognizes and adapts to the ever-evolving medical, political, legal, and ethical environments surrounding third party reproduction.



EXHIBIT COMPANY LISTING

Femasys Inc. – Booth: 1738

3950 Johns Creek Court, Suite 100 Suwanee, GA 30024
www.femasys.com

Femasys Inc. is a privately held medical technology company transforming women's healthcare worldwide by developing a platform of innovative, in-office gynecological solutions. Femasys' reproductive health portfolio includes FemVue®, a device that introduces a mixture of saline and air contrast "bubbles" that are highly visible under ultrasound allowing physicians to accurately evaluate the fallopian tubes in the convenience of their office. For more information, please visit www.femvue.com.

Ferring Pharmaceuticals Booth: 1313 and 1316

100 Interpace Parkway
Parsippany, NJ 07054
www.ferringusa.com



Ferring Pharmaceuticals is a research-driven, specialty biopharmaceutical group committed to helping people around the world build families and live better lives. With global headquarters in Saint-Prex, Switzerland and its US Operations Center in Parsippany, NJ, Ferring is a leader in reproductive medicine and women's health, and in specialty areas within gastroenterology and urology. Ferring provides a range of therapies to help women along every step of their fertility journeys from conception to birth. Founded in 1950, privately-owned Ferring now employs approximately 6,500 people worldwide, has its own operating subsidiaries in nearly 60 countries and markets its products in 110 countries. For more information, call 1-888-FERRING (1-888-337-7464); visit www.FerringUSA.com

FertileWell, LLC – Booth: 2032

One Boston Place Suite 2600 Boston, MA 02108
www.fertilewell.com

FertileWell is a trusted leader in fertility and reproductive health, with years of specialized scientific research into fertility health and nutrition with the aim of helping families try to conceive. All FertileWell fertility products are manufactured in a FDA certified, GMP Certified Facility here in the United States. Our mission is to develop high quality natural fertility products designed to safely promote fertility & reproductive health, and healthy pregnancy.

Fertility Booking Pty Ltd – Booth: 2038

Level 19, 10 Eagle Street Brisbane, QLD 4000
fertilitybooking.com

Fertility Booking enables patients to book appointment with Fertility Specialist in real time using web and mobile applications. Using Advanced Digital Marketing we will promote our partner clinics and advertise to patients of all over the world. If you need more patients, then fertilitybooking.com is simple solution.

Fertility Dynamics – Booth 2014

www.fertilitydynamics.com

Fertility Pharmacy of America – Booth: 2003

1911 Church Street Nashville, TN 37203

Fertility Pharmacy of America is a boutique fertility pharmacy created to provide patients with better service and value while giving Reproductive Endocrinologists more control over how the pharmacy operates.

Fertility Pro – Booth: 734

482 S. Arroyo Pwky., Suite #404 Pasadena, CA 91105
www.fertilitypro.com

Fertility Pro is a software company that works collaboratively with clinics, labs, and scientific companies worldwide to design applications for managing and promoting growth in the fertility industry. With modules designed specifically for every aspect of fertility management, Fertility Pro enables users to capture essential data and meet legal obligations, regulatory requirements such as SART & CDC, and create their own standards of excellence.

Fertility Technology Resources, Inc. – Booth: 1907

1539 Jackson Avenue, Suite 410
New Orleans, LA 70130

Providing products for the fertility market since 1987. Specializing in the Andrology Lab, our premiere line includes: CellVision Counting Chambers, Sperm Class Analyzer, BioScreen andrology tests, cryogenic supplies, plasticware and disposables for the fertility lab including MVE, Falcon and Nunc.



EXHIBIT COMPANY LISTING

First Egg Bank – Booth: 1055

102, Antonovycha str. Lviv, 79057
www.first-egg-bank.com/en

USA fertility patients, who are looking for frozen donor eggs or sperm from abroad may select them through First Egg Bank. First Egg Bank is Ukrainian egg donor bank that belongs to the human cell and tissue establishments of FDA, which are allowed to import human reproductive cells (oocyte, sperm, embryos) to USA. First Egg Bank offers: • Batches of 6, 8 and 12 frozen donor eggs • Sperm samples in straws and vials • Embryo creation • Cryoshipping to USA Contacts +1 929 999 2034 www.first-egg-bank.com

Freedom Fertility Pharmacy Booth: 1119

12 Kent Way Byfield, MA 01922-1221
www.freedomfertility.com



Bronze Level Supporter

Our mission is to help people through a very complex process during one of their most vulnerable and emotional times in life. Our patients count on us to give compassion, empathy, and peace of mind along with an expertise in providing what they need to be successful in their fertility journey.

FUJIFILM Irvine Scientific Booth: 1201

1830 E. Warner Ave.
Santa Ana, CA 92705-5533
www.irvinesci.com



Bronze Level Supporter

As a cell culture media pioneer, we leverage decades of industry insight to deliver advanced cell culture media solutions for use in reproductive medicine, medical and translational research, biopharmaceuticals, regenerative medicine, and clinical diagnostics. Our innovative products and services enable scientists to fulfill the potential of emerging therapies and help clinicians achieve successful outcomes for their patients. FUJIFILM Irvine Scientific was acquired by Fujifilm in 2018. As one of the Fujifilm Healthcare companies, we utilize their expertise in engineering and manufacturing to accelerate the innovation of media and technologies for assisted reproduction and deliver inventive products and workflows aimed to meet the evolving needs of the reproductive medicine community and help patients successfully achieve their dreams of a family.

Future Family – Booth: 1041

655 Montgomery St., 7th Fl
San Francisco, CA 94111
www.futurefamily.com

futurefamily

Bronze Level Supporter

Future Family: The complete solution for your IVF and egg freezing journey.

GA International – Booth: 628

3208 Jacques-Bureau Ave. Laval, QC H7P 0A9

GA International provides labeling solutions for the assisted reproductive technology industry. Our products conform to the highest standards of quality, with labels that are tested in-house for VOCs. For samples, please visit our booth 628. Our labels meet the most stringent specifications, such as resistance to cryogenic storage and exposure to harsh solvents. We provide sample-tracking and identification equipment as well as custom manufacturing services to meet all our clients' needs.

Galen US, Inc. – Booth: 1811

25 Fretz Road Souderton, PA 18964
www.galen.co.uk

Galen is a recognized Specialty Pharmaceutical Company marketing products throughout the UK, Ireland, Europe and the US in therapy areas such as gastroenterology, psychiatry, female health and pain management. By combining innovation in product development with competitive pricing, Galen aims to work in partnership with healthcare professionals and patients to create real, long-term value, a major factor in the company's success to date.

Gateway Genomics – Booth: 1756

7590 Fay Ave, Suite 200 La Jolla, CA 92037
gatewaygenomics.org

Gateway Genomics is dedicated to developing leading-edge fetal and infant DNA technology, to give families everywhere a 'sneakpeek' into the health and development of their future child. The initial offering is SneakPeek Clinical, a cell-free fetal DNA test for sex determination at 9 weeks or later gestation. Key features include, a 1ml blood draw, direct result to patient via email, patient cash pay test \$129, no insurance billed. Preserving NIPT/Genetic testing for later in the timeline.



EXHIBIT COMPANY LISTING

GE Healthcare – Booth: 1101

9900 W Innovation Drive Wauwatosa, WI 53226

GE Healthcare is a leading provider of medical imaging, monitoring, and life science technologies. GE Healthcare enables precision health in diagnostics, therapeutics and monitoring through intelligent devices, data analytics, applications and services to help providers, researchers and life sciences companies in their mission to improve outcomes for patients around the world.

Genea Biomedx – Booth: 707

321 Kent Street, Level 3 Sydney, NSW 2000
www.Geneabiomedx.com

Genea Biomedx is a manufacturer of IVF devices, developing fertility technologies that automate and standardise lab workflow. Our main focus is to make a big impact on the way fertility treatment is undertaken by transforming our immense wealth of expertise into practical, accessible, precise technology that aims to significantly improve lab and ultimately patient outcomes.

GeneMatters – Booth: 1945

807 Broadway St NE Suite #350 Minneapolis, MN 55413
www.gene-matters.com

We offer expert genetic counseling through telehealth. As your partner in reproductive medicine, we'll provide timely access to highly experienced, board-certified genetic counselors with coverage in all 50 states and Canada. We provide temporary or long-term support as you build or expand your genetic counseling offering. We connect to you through our telegenetics platform to easily schedule, manage patients and share records. We're excited to meet you to learn how we can partner!

Genome Medical – Booth: 735

701 Gateway Blvd., Suite 380
South San Francisco, CA 94080
www.genomemedical.com

Genome Medical is a leading telegenomics technology and services company. We provide comprehensive clinical genetics services and facilitate access to genetic testing through telehealth consultations and a genomic care delivery platform. Our nationwide network of genetic specialists can help practices more efficiently integrate reproductive health genetics – including patient education and informed consent; selection and ordering of tests; and interpretation of and counseling on results.

Genomic Prediction – Booth: 1908

675 Us Highway 1 Ste 126, North Brunswick, NJ 08902-3378
www.genomicprediction.com

Genomic Prediction is the first laboratory in the country to offer PGT for polygenic conditions (PGT-P) such as cancer, heart disease and diabetes. Our methods allow for simultaneous detection of aneuploidy, single gene disorders and chromosome rearrangements, with the capacity to differentiate between balanced and normal karyotypes. We have also developed an innovative testing platform for PGT-A, \square SEQ. A one step library prep makes testing safer, faster and more affordable.

Global Fertility and Genetics Booth: 1057



115 E 57th St, Ste 420-430, New York City, NY 10022
globalfertility.net

The fertility specialist at Global Fertility & Genetics assist couples and individuals who wish of becoming parents and extending their families. With decades of experience, a state of the art laboratory facility and personal care we make your parenthood dreams come true. Fertility solutions aren't the only thing you gain once introduced to our staff, you also become a part of the Global Fertility family.

Global Q – Booth: 2026



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No. 4 Building 77, Second Floor
Beijing, Chaoyang District 100001
www.quanqiuyi.cn

GlobalQ, as a third-party global aggregation platform for medical comment, with multi-site global medical information display and a large number of real users' medical comments, can let Chinese users directly and quickly understand the global doctors/hospitals and service institutions, and affect users to accurately make international medical decisions. 1.The doctors/hospitals of GlobalQ: The purpose of GlobalQ is let you connect with more global doctors quickly. And as for the select of doctors, GlobalQ can guarantee the variety, reality and profession of doctors. 2.The evaluation of doctors in GlobalQ: In GlobalQ, you can see lots of IVF baby users to share their real experience. And these evaluations are based on real medical records of users to make sure reality and reference. GlobalQ lets you connect with global doctors at anytime and anywhere and let you see more real experience of foreign treatment.



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EXHIBIT COMPANY LISTING

Guerbet LLC – Booth: 619

821 Alexander Road, Suite 204 Princeton, NJ 08540
www.guerbet-us.com

With 90 years' experience, Guerbet is a pioneer in the contrast agent field and the global specialist of the medical imaging market. Offering a comprehensive range of X-Ray, MRI and IR products, along with a range of injectors and related medical devices to improve the diagnosis and treatment of patients.

Gynex – Booth: 1155

14603 NE 87th St. Redmond, WA 98052-6552
www.gynexcorporation.com

Gynex is a provider of quality medical devices of obstetrics and gynecology for over 20 years.

Hamilton Thorne, Inc.

Booth: 1027

100 Cummings Ctr Ste 465E
Beverly, MA 01915-6143



Hamilton Thorne is a leading provider of precision instruments, consumables, software and services. We are showcasing our LYKOS laser, IVOS and CEROS CASA systems, ZANDAIR air purification units, VibeX antivibration platforms, Gynemed micropipettes, Planer incubators and monitoring system, and a range of distributed equipment and consumables for the IVF laboratory. Hamilton Thorne also offers complete lab build-out solutions. Stop by and learn what we can offer.

Hawaiian Moon – Booth: 733

321 South Missouri Avenue Clearwater, FL 33756
www.aloecream.biz

Say Goodbye to Dry Skin with Hawaiian Moon Organic Aloe Cream! It is free of dyes, fragrance, parabens, sulfates, mineral oil, and any other harsh chemicals, including petroleum. Our cream penetrates the skin up to 7 layers deep, and absorbs into the skin instantly.

Health Credit Services – Booth: 630

1401 W Morehead St Ste 200 Charlotte, NC 28208-5600
www.hcsloans.com

Health Credit Services (HCS) is a technology driven, patient financing company. HCS helps providers drive efficiencies while transforming paying into a positive experience. From practices delivering more care to patients successfully managing their health, HCS takes pride in empowering and equipping customers to take charge of their physical and financial well-being.

Health Decisions, Inc. – Booth: 640

2510 Meridian Parkway Durham, NC 27713-2260

Health Decisions is a full-service contract research organization offering therapeutic, operational and regulatory excellence for the clinical development of drugs, diagnostics, medical devices and combination drug/devices in all areas of women's health. Since its inception more than 29 years ago, Health Decisions has supported over 300 clinical trials, including 140 in women's health indications.

HiLin Life Products, Inc. – Booth: 1843

One Gateway Suite 2600 Newark, NJ 07102
www.knowhen.com/en

ICCBBA – Booth: 1836

1200 California St, Suite 106 Redlands, CA 92374-2946
www.iccbba.org

ICCBBA provides the ISBT 128 standard for terminology, identification, coding and labeling of medical products of human origin. The standard ensures the highest levels of accuracy, safety, and efficiency for the benefit of donors and patients worldwide. ICCBBA is an NGO in official relations with the World Health Organization.

International Federation of Fertility Societies (IFFS) Booth: 2029

19 Mantua Rd. Mount Royal, NJ 08061-1006
www.iffs-reproduction.org

IFFS - International Federation of Fertility Societies creates global programs & initiatives to advance fertility care and education so that all women & men have access to quality fertility and reproductive health care. Events: IFFS/ FERSOG Workshop: Management of Infertility and Assisted Conception, 18 - 20 September 2019, Accra, Ghana; IFFS Course at Argentine Congress SAMer 2020, 2 September 2020, Rosario, Argentina; IFFS World Congress, 2 - 6 April 2022, Athens, Greece www.iffs-reproduction.org



EXHIBIT COMPANY LISTING

Igenomix – Booth: 727

7955 NW 12th St Suite 415 Miami, FL 33126-1823
www.igenomix.us

IGENOMIX is a biotechnology company that provides advanced services in Reproductive Genetics. Our experience and advanced research capabilities have made this company one of the world leaders in its field, enabling it to provide effective solutions tailored to different infertility problems. IGENOMIX has lab operations in Miami, Los Angeles and New York, and 21 other laboratory affiliates around the world.

Imagine Fertility – Booth: 1913

18911 Hardy Oak Blvd, Ste 3 San Antonio, TX 78258

Imagine Fertility features the ImaginePRM - A fertility specific patient relationship management and workflow tool. Help drive patient engagement and retention by making sure your patients receive the attention they need, and de-mystify the IVF financial process.

403

Indian Egg Donors – Booth: 1844

Surrogacy4All, 1148 5th Ave Ste 1B New York, NY 10128
www.IndianEggDonors.com

Www.IndianEggDonors.com is the premier resource in New York City and across the United States for those who are looking for egg donors and surrogates. We have over 1,000 egg donors and surrogates in our database and work with top fertility clinics and clients world-wide. Through our affiliated site, www.Surrogacy4All.com we provide low cost overseas surrogate mothers for \$39,000 at an FDA standard IVF Center. We also provide US Surrogates for \$105,000 per surrogate mother.

InteGen LLC – Booth: 1054

8865 Commodity Circle, Suite 2
Orlando, FL 32819



InteGen develops innovative, clinically useful, and cost-effective DNA FISH probes for the cytogenetics community. We offer multi-color metaphase and interphase chromosome profiling, including our Rapid FISH with 15-minute hybridization. InteGen FISH probes 1) detect balanced, unbalanced, and Robertsonian translocations, 2) provide high-resolution breakpoint assignment, 3) characterize marker and add chromosomes, and 4) detect balanced and unbalanced sub-telomere rearrangements. Our multiplex rehybridization protocol makes complete molecular profiling on a single circulating tumor cell possible, while our rapid hybridization allows same-day results, permitting fresh embryo transfer for IVF patients. With multiple-sequential hybridizations and a simple two dual filter detection system, you will be able to achieve comprehensive genome coverage/profiling with our probes on as few as a single cell.

IntegraMed Fertility – Booth: 1501

2 Manhattanville Rd. Purchase, NY 10577-2113
www.integrated.com

IntegraMed® Fertility is the leading network of fertility providers in North America providing partners with a wide range of services including clinical and business information systems, marketing, operations management, finance, legal, risk management, quality assurance, and more. Through proprietary programs, tools and expertise, IntegraMed Fertility helps to drive new patient growth by supporting clinical and market leadership in delivering best-in-class patient experiences.

Invitae Corporation – Booth: 1507

1400 16th Street San Francisco, CA 94103
invitae.com

Invitae's mission is to bring comprehensive genetic information into mainstream medical practice to improve the quality of healthcare for billions of people. Our goal is to aggregate most of the world's genetic tests into a single service with higher quality, faster turnaround time and lower prices. Visit www.invitae.com.



EXHIBIT COMPANY LISTING

Invitrocare, Inc. – Booth: 1915

8415 Progress Dr Unit F. Frederick, MD 21701-4762

InVitroCare Inc provides a full range of ART products, including products for both gamete and embryo preparation and freezing. Our IVC Media Series is designed to support embryo growth at each stage of development. Additional products include double-washed Mineral Oil, ICSI reagents and a complete line of IUI products and equipment specifically designed for the doctor's office. Our products are manufactured in FDA registered facilities in full compliance with cGMP and ISO 9001 standards.

INVO Bioscience – Booth: 1807

5582 Broadcast Court
Sarasota, FL 34240
invobioscience.com



The INVO Bioscience® mission is to increase access to care and expand fertility treatment and patient care across the globe. For many couples struggling with infertility, access to treatment is often not possible. Financial challenges, limited availability of specialized medical care, religious, social or cultural roadblocks can prevent these hopeful parents from realizing their dream to have a baby. INVOcell® is the first Intravaginal Culture (IVC) system granted FDA clearance in the United States, providing millions of infertile couples across the country access to this revolutionary infertility treatment. This novel device utilizes the women's vagina as an incubator to support a more natural fertilization and embryo development environment. The INVOcell device and INVO® Procedure will provide couples the opportunity to have an additional option other than the thirty-year-old traditional treatments, Intrauterine Insemination (IUI) and In Vitro Fertilization (IVF).

IQ-Medical Ventures BV – Booth: 605

World Trade Center Rotterdam - Beursplein 37 - Suite 1960
Rotterdam, 3011 AA

ExEm® Foam, a first-line investigation to diagnose Tubal Patency using Ultrasound. Experience the performance and accuracy as compared to HSG and Saline. Worldwide 400.000+ procedures have been performed, 20+ Publications are available in respected magazines. ExEm® Foam will be introduced to the United States during the ASRM convention in Philadelphia. Workshops and Videos are available, enabling you to experience the latest innovation in Tubal patency. You are invited to visit us at booth 605.

IVF Store – Booth: 1349

5975 Shiloh Road, Suite 101
ALPHARETTA, GA 30005

IVF STORE, is a full service, online store representing the finest IVF products supported with traditional and exceptional customer service. For maximum convenience to customers, our easy to use and functional website is fully responsive, allowing IVF orders to be taken with a computer or mobile device. Our one-stop-shop for "Everything IVF" makes ordering easier than traditional channels through multiple vendors and allows us to serve you with focus and efficiency.

IVF USA. Ltd – Booth: 1933

Room A1510, Pacific Century, No.2 North Worker
Stadium, Chaoyang District
Beijing,

IVF USA is a top counseling service company in China, providing fertility service for Chinese. IVF USA is committed to combining excellent medical care with an individualized, warm and compassionate approach. The facilities are world class and feature the advanced technological equipment available. We will do everything we can to help you conceive a child.

IVFCryo, LLC – Booth: 851

5216 Marburn Avenue Los Angeles, CA 90043
www.ivfcryo.com

IVFCryo mission is to help fertility clinics follow best practices in cryogenic storage by performing comprehensive risk assessments of their cryogenic storage functions, making recommendations to bridge the observed gaps, and helping to implement the recommendations by developing policies and procedures, and training the staff to perform the processes properly. When appropriate, IVFCryo can also design a dedicated cryogenic storage facility for the clinic, and help manage the buildout.



EXHIBIT COMPANY LISTING

IVFqc

Booth: 1801

1185 Avenue of the Americas
New York, NY 10036
www.ivfqc.com

Founded in 2013 by experts in assisted reproductive technology, IVFqc provides secure cloud-based services that promote efficiency, effectiveness, data analysis, and reporting capabilities for any lab or clinic. Our applications adapt to any workflow and feature individual user accounts, two-factor authentication, HIPAA-compliance, intuitive self-customizable functionality, and universal accessibility with any internet-connected device. Used individually or in combination with each other, Reflections, Generations, Diro, SquareOne, and Kaleasy enable specialists to assess key performance indicators over time, monitor instrument quality control, and develop insights into operational processes in order to improve decision-making and patient-care outcomes. They propel analytics, research, and discovery, and empower comprehensive data, resource, time, and practice management. For more information, please visit ivfqc.com.



KENECT – Booth: 1356

2100 W Pleasant Grove Blvd #380
Pleasant Grove, UT 84062
www.kenect.com

Kenect is a business texting and reputation management platform built specifically for the fertility industry. The platform allows your clinic to convert your existing business phone line so it is text-enabled, making text messaging a more efficient way to communicate with patients and families. Kenect specifically will help you save time, easily capture and convert inbound leads, send out appointment reminders, collect on outstanding balances, and generate 5-star reviews on Google & Facebook.

Kindbody – Booth: 600

1140 Broadway, 11th Floor New York, NY 10001
www.kindbody.com

In boutique, modern, tech-enabled clinics, we provide fertility services, gynecologic care, and wellness support - offering the first one-stop-shop for all women's health and fertility needs. Our best-in-class clinical team serves the modern day women in retail and mobile locations across the country, delivering a new generation of care - elevated, seamless, and accessible. By women, for all of us.

KITAZATO – Booth: 1613

81 Nakajima
Fujii, Shizuoka 416-0907



Bronze Level Supporter

Kitazato is a Japanese development-oriented company which assists total fertility treatment with our wide range of products for IUI, IVF, Cryo and PGD. Our highest survival rate of Cryotop® method, as well as our quality catheters and needles ensures the most ideal treatment to all professional doctors and embryologists.

JOG, Taiwan Egg Donors – Booth: 849

No. 125 Minzu Road East District Hsinchu City, 30043
ivf.com.tw

Hi Dr, Together we can make something amazingly sweet and beautiful. We are JOG, Taiwan Egg Donors. Best, Jeng-Jier Jiang, M.D. 2019.10.12.

Karl Storz Endoscopy-America

Booth: 1204

2151 E. Grand Ave.
El Segundo, CA 90245
www.karlstorz.com



KARL STORZ is a global provider of advanced endoscopic instruments and related technologies. With longstanding expertise in gynecology and reproductive medicine, KARL STORZ offers a comprehensive suite of minimally invasive devices, including various types of hysteroscopes and resection systems. KARL STORZ is dedicated to providing quality instruments that enhance the treatment of women in diverse clinical settings without losing sight of the need to control costs.

LabCorp – Integrated Genetics

Booth: 1713

3400 Computer Drive
Westborough, MA 01581
www.labcorp.com



LabCorp provides leading-edge diagnostic tests and services through a national network of primary clinical laboratories and its specialty testing group. With scientific expertise in esoteric testing, genomics, clinical and anatomic pathology, and a commitment to comprehensive and high quality laboratory services, LabCorp delivers timely, accurate results for improved patient care.



EXHIBIT COMPANY LISTING

Labotect GmbH – Booth: 739

Kampweg 12 37124 Rosdorf, DE
labotect.com

Expertise from the beginning in the field of Assisted Reproduction! Located in Germany Labotect produces a wide range of products; among our products you'll find e.g. CO2 incubators, embryo transfer catheters, devices and disposables for aspiration. The company is represented by a strong network of reliable and well-trained distributors in over 60 countries. Whatever it is you are looking for in an IVF laboratory, Labotect is the right and ISO 13485 certified partner. Quality – Made in Germany!

Lara International – Booth 948

LendingClub Patient Solutions – Booth: 815

1700 West Park Drive, Suite 310
Westborough, MA 01581

Don't let cost be a barrier to your dreams of parenthood. Discover a more affordable way to pay for your fertility treatment and related care with payment plans offered through LendingClub Patient Solutions.

Lenus Pharma – Booth: 1607

Seebockgasse 59A-1160 Vienna, Vienna 1160
www.profertil.us

PROfertil® by Lenus Pharma is a US-patented & clinically-proven solution for the dietary management of fertility disorders in men. 6 clinical studies on the patented formulation w. 1000+ patients verify the formulation's impact on improving semen quality (incl. reduced DNA fragmentation), & achieving an average pregnancy rate of 26% among infertile couples. PROfertil® products are recommended by leading fertility experts worldwide, marketed in over 70 countries & are now available in the US.

LifeAire Systems LLC – Booth: 906

1275 Glenlivet Drive Allentown, PA 17520
www.lifeaire.com

Formulated by 26 patents, the LifeAire technology specifically targets the cytotoxic levels of volatile organic compounds (VOCs), viable and nonviable particulates in air to bring levels within optimal ranges to protect the human embryo. Cells cultured in LifeAire-purified air have demonstrated statistically significant increases cellular metrics and clinical outcomes beyond any other technology in the market.

Lina Medical – Booth: 627

1856 Corporate Drive, Suite 135 Norcross, GA 30093

LiNA Medical® develops innovative, simple to use devices for minimally invasive gynecology that are designed to improve patient care. LiNA's latest innovation, the LiNA OperâScope™, is the first and only fully disposable, operative hysteroscopy system. Designed specifically for the office, the convenient single-use design is ready for use out of the box without the cost and complexity of traditional hysteroscopy.

Mandell's Clinical Pharmacy – Booth: 612

7 Cedar Grove Ln Ste 24 Somerset, NJ 08873-1331
MandellsPharmacy.com

Mandell's Clinical Pharmacy is an independently-owned specialty pharmacy with an exclusive focus on meeting the needs of fertility patients. As former IVF patients, owners Terry and Eddie Malanda began working with the infertility community over 25 years ago. With experience, expertise and personalized service, Mandell's team works directly with patients and providers throughout the treatment process, creating a new standard of excellence that should be expected from a pharmacy.

Marina Medical Instruments, Inc. – Booth: 1254

8190 West State Road 84 Davie, FL 33324
www.marinamedical.com

MarinaMedical designs, develops and delivers surgeon-focused solutions for Gynecology, UroGynecology and Pelvic Reconstruction fields of surgery. Stop by our booth to see the latest instrumentation innovation designed by your colleagues. Se habla español. Falamos Português.

MDArtistry – Booth: 645

10817 Melvin Grove Ct. Kensington, MD 20895
etsy.com/shop/MDArtistryOnline

Original watercolor art by Alicia Christy M.D. Reasonably priced commission artwork is also available, as well as watercolor prints. My watercolor art was featured at the National Medical Association Marketplace. My work has been published in Academic Medicine, Seminars in Reproductive Medicine, and Obstetrics and Gynecology Clinics of North America. I can be contacted by email at ayba@alumni.princeton.edu, or by cell phone 301-633-5112.



EXHIBIT COMPANY LISTING

MDocHaus – Booth: 2012

485 Massachusetts Ave Cambridge, MA 02139
www.mdochaus.com

MDR Fertility Pharmacy – Booth: 1006

17071 Ventura Blvd Ste 100 Encino, CA 91316-4117
www.mdrusa.com

MDR is not your everyday pharmacy. Helping fertility patients become parents has been our passion for over 30 years. MDR's patient care team works hand in hand with our partner clinics to ensure a stress-free experience from start to finish. For our patient's convenience, we also offer free next day shipping to all 50 states and injection supplies at no extra charge. For more information about MDR, call 1-800-515-3784 or visit www.mdrusa.com.

Medanswers – Booth: 1901

222 W 6th Street, Suite 400
San Pedro, CA 90731
www.medanswers.com



MedAnswers is a health tech, venture-backed startup with the first social media platform for fertility. The company connects patients directly to fertility experts who answer their anonymous questions and provide telehealth consults. Experts also can post original social media content in which users can like or comment on to ensure only clinically and scientifically validated information is shared with the community. The company also matches users to diagnostics, products, solutions and clinical trials based on their self-reported health data with the mission of speeding their path to pregnancy. To date the company has over 200 experts participating in network and adds more than 2,000 users per week.

Medical Electronic Systems, LLC

Booth: 836

5757 West Century Boulevard, Suite 805
Los Angeles, CA 90045
www.mes-global.com



Remember, it ALL Started with a Sperm! Medical Electronic Systems is a Los Angeles based technology company specializing in rapid, automated semen analysis for the laboratory and home. The MES line of CE and FDA approved Sperm Quality Analyzers, YO Home Sperm Test Kits, and complimentary testing supplies are sold through an extensive network of international distributors. MES is ISO certified as a medical manufacturer and has distribution offices in America, Europe, Asia and Israel. The company began selling it's line of laboratory grade products in the year 2000 and is considered the world leader with over 3,500 systems sold globally. In 2017, the company launched an at-home solution for couples interested in a semen analysis screening in the comfort of home. YO Home Sperm Test is FDA cleared as an over the counter product and available through the companies website (www.yospermtest.com), Amazon, and eBay. Please swing by our booth and Remember, it ALL Started with a Sperm!

Meditab Software Inc.

Booth: 1035

1420 River Park Drive, Suite 120
Sacramento, CA 95815
www.fertilityehr.com



Introducing FertilityEHR — the top all-in-one EHR, practice management, and billing platform specially designed for reproductive endocrinologists, obstetrician-gynecologists, andrologists, embryologists, reproductive immunologists, fertility lab technicians, and reproductive surgeons. Our innovative system provides everything from centralized dashboards for quickly managing patient cycles to an integrated ultrasound interface that automatically records ultrasound measurements.

MedTech For Solutions, Inc. – Booth: 1451

475 Park Avenue South New York, NY 10016
www.medtech4solutions.com

Innovative solutions and technologies optimize laboratory development, operation and success. No cost GPO saves 10-50 percent on equipment and supplies. Practice start-up and relocation turn-key solutions. Staff recruitment and human resources. Temporary lab staffing and off-site directors. Ova Tools Andrology and Embryology Institute provides technical hands-on training for laboratory staff.



EXHIBIT COMPANY LISTING

Mellowood Medical-Ideas

Booth: 812

45 Mellowood Drive, Ste. 1B Toronto, ON M2L 2E4
www.mellowoodmedical.com



IDEAS EMR: 'State of the ART' fertility clinic management software at leading academic (including Nobel Prize-winning) and private centres – 20 + Years of IVF Sector Experience. SART, HFEA+Compatible WHY IDEAS? Holistic view of Your entire fertility practice via IDEAS Ecosystem of connectivity – of machines and process, saving time and money while reducing errors Partnerships with industry leading labs and machines – for timely and accurate renderings of PGT/DICOM/immunoassay results Robust audit trails and access rights for compliance to HIPAA/PIPEDA/JCI and other bodies Experienced 'round the clock' support wherever Your clinic(s) Cerner/EPIC/IDX and other integrations at major global institutions (including the largest pediatric facilities in Americas, Europe and Middle East) We can convert your legacy database/EMR/cryostorage (Excel/Filemaker) into modern, enterprise-class software You Own the Data – no Shenanigans of 'behind your back' privacy-sensitive information taking!

Men Having Babies, Inc. – Booth: 1454

4441 Dundee Road Riverside, CA 92503

The nonprofit Men Having Babies (MHB) provides educational and financial support for prospective gay surrogacy parents worldwide. MHB runs annual conferences in NY, Chicago, Brussels, San Francisco, Texas, Florida, Taipei and Tel Aviv. Our Gay Parenting Assistance Program (GPAP) provides cash grants, discounts, and free services from leading surrogacy providers. www.menhavingbabies.org

Merck & Co., Inc. – Booth: 827

2000 Galloping Hill Road
Kenilworth, NJ 07033
www.merck.com



For more than a century, Merck has been inventing for life, bringing forward medicines and vaccines for many of the world's most challenging diseases. Today, Merck continues to be at the forefront of research to deliver innovative health solutions and advance the prevention and treatment of diseases that threaten people and animals around the world.

Metro Integrative Pharmacy – Booth: 1914

931 Lexington Avenue New York, NY 10065-5771
metrointegrative.com

Metro Integrative Pharmacy is a full service fertility pharmacy providing services throughout the US. Pharmacy staff are available 24/7 to answer medication questions In addition to low prices we automatically apply all available discounts and offer a variety of patient assistance programs to help you achieve your dream.

MicroData Instrument Inc. – Booth: 745

1207 Hogan Dr. South Plainfield, NJ 07080-2474
www.microdatamdi.com

25+ Years design and manufacture of assisted reproductive instruments and tools ranging from Micropipettes, Micropipette Holders, Programmable Microinjectors and Microinjection Systems, series of Pipette Pullers, Microforge, Pipette Beveller, manual microinjectors, manual micromanipulators and hydraulic joystick 3D Micromanipulators, Inverted Microscopes.

Mindray North America – Booth: 738

800 MacArthur Boulevard Mahwah, NJ 07430
www.mindraynorthamerica.com

Mindray provides a broad range of ultrasound solutions based on Living Technology architectures. Using next generation technologies, advanced signal processing and newly designed algorithms offer end users highly-featured systems with premium image quality. The powerful system performances deliver deeper penetration and higher resolution, which can assist with bringing clinical certainty within reach. Systems, DC-70 and DC-40, offer clinicians many options for a wide variety of imaging needs.

Monarch Medical Products, Inc. – Booth: 610

5425 Hedgewick Way Cumming, GA 30040-1203
www.monarchmedicalproducts.com

Monarch Medical specializes in women's healthcare products for Infertility and OB/GYN. Our products range from HSG/Sono-Catheters, IUI Catheters, Embryo Transfer Catheters as well as high quality German Stainless Steel surgical instruments.



EXHIBIT COMPANY LISTING

My Egg Bank – Booth: 1200

1100 Johnson Ferry Rd N.E., Suite 460 Atlanta, GA 30342
www.myeggbank.com

MyEggBank is one of the largest frozen donor Egg Banks in North America. Currently there are nine internationally recognized production centers that provide frozen donor eggs to over 130 affiliated centers. We have helped thousands of people grow their families with our innovative technology, extensive selections of donors and compassionate care.

Myovant Sciences, Inc. – Booth: 601

2000 Sierra Point Pkwy., 9th Floor
Brisbane, CA 94005
www.myovant.com



Myovant Sciences is focused on women's health because when she moves forward, we all move forward. Relugolix combination therapy, an oral, once-daily GnRH receptor antagonist plus low-dose estradiol and norethindrone acetate, is in clinical development for uterine fibroids with recent completion of two replicate Phase 3 studies (LIBERTY 1 and LIBERTY 2). Relugolix combination therapy is also in clinical development for endometriosis-associated pain with two ongoing Phase 3 studies (SPIRIT 1 and SPIRIT 2). MVT-602, an oligopeptide kisspeptin-1 receptor agonist, is in clinical development for female infertility with recent completion of a Phase 2a study.

Myriad Genetic Laboratories – Booth: 1819

320 Wakara Way Salt Lake City, UT 84108
www.myriad.com

Myriad Genetics is a personalized medicine company dedicated to being a trusted advisor and transforming patient lives worldwide with molecular diagnostics. Myriad discovers and commercializes diagnostic tests that determine the risk of developing disease, accurately diagnose disease, assess the risk of disease progression, and guide treatment decisions where molecular diagnostics can significantly improve patient care and lower healthcare costs. For more info, please visit: www.myriad.com.

Nableivf – Booth: 616

1235 North Loop W Ste 502 Houston, TX 77008-4704
www.nAbleIVF.com

nAbleIVF is a comprehensive cloud-based IVF EMR/PM system designed for efficient work flow, paperless environment, and better patient communication. Affordably priced, nAbleIVF offers the best value in the market and sets a new standard of quality, support and reliability. nAbleIVF is ideal for modern IVF practices and is customized to your needs and style of practice. With no long-term contract, data lock-in, or platform restrictions, nAbleIVF is the choice of a growing number of IVF clinics.

Narishige International USA, Inc.

Booth: 807

415 Bayview Ave
Amityville, NY 11701-2838

With over 60 years' experience in micromanipulation technology, NARISHIGE offers the most reliable and latest technology in A wide range of products including both in vivo and in vitro experiments such as isolation stages, motorized and manual manipulators, pullers, microforges, patch clamp systems, perfusion systems, and stereotaxic instruments. Any requests and opinion are welcome. Narishige also specializes in customized products to help accommodate the researcher's needs, allowing us to be the "CRAFTSMAN FOR YOUR SOLUTIONS".

NARISHIGE

Natera – Booth: 1209

201 Industrial Rd Ste 410 San Carlos, CA 94070-2396
www.natera.com

Natera is a global leader in cell-free DNA testing. The mission of the company is to change the management of disease worldwide by harnessing the power of DNA from a single blood sample to improve the management of reproductive health, oncology, and organ transplantation. Natera® is driven by a passion for improving the path to parenthood with a suite of high-quality reproductive health genetic tests that support families in their journey from preconception, to pregnancy, and birth.





This certificate is awarded to

upon successful completion of the

ASRM Embryo Transfer Certificate Course

This intensive curriculum-based program consists of online coursework and hands-on simulation in the basic principles and techniques of human embryo transfer and requires completing a minimum of 60 simulated transfers.


Richard H. Reindollar, M.D.
CEO

Certificate Issued June 14, 2018

The American Society for Reproductive Medicine
is committed to providing physicians with continuing education



ASRM Announces 2020 Regional Workshop Dates Offers Embryo Transfer Certificate Course to REI Fellows

The Embryo Transfer Certificate Course is an intensive curriculum-based program consisting of online coursework and hands-on simulation training in the basic principles and techniques of human embryo transfer.

2020 REGIONAL WORKSHOPS

New England Regional Workshop

February 2020 • Boston, MA

West Coast Regional Workshop

May 2020 • Los Angeles, CA

Mid Atlantic Regional Workshop

September 2020 • Baltimore, MD

Southeast Regional Workshop

November 2020 • ASRM Office, Birmingham, AL

A six-week Embryo Transfer Simulator Loan Program is available to fellowship programs and IVF practices.

For more information, stop by the Simulation Pavilion on the Expo floor,
or email Keith Ray at kray@asrm.org.

EXHIBIT COMPANY LISTING

National Embryo Donation Center – Booth: 1912

11126 Kingston Pike
Knoxville, TN 37934-2806
www.embryodonation.org

Since 2003, the National Embryo Donation Center (NEDC) has been the country's leading comprehensive non-profit embryo donation program. Our mission is to protect the lives and dignity of human embryos. We do that by promoting, facilitating and educating about embryo donation. We're also the only clinic-based organization that works with families of all races, faiths and ethnic backgrounds. Our office is in Knoxville, TN.

National Fertility Support Center – Booth: 2031

2180 44th Street SE Suite 108 Kentwood, MI 49508
www.fertilitysupportcenter.org

NextGen LifeLabs – Booth: 935

384 Nina Way
Warminster, PA 18974
www.nextgenlifelabs.com



Established in 2012, NextGen LifeLabs is your premier supplier of complete solutions for the modern IVF (A.R.T.) laboratory. Our team is dedicated to providing your IVF program with the most cutting-edge laboratory equipment, consumables, and industry leading service and support. We offer an extensive catalog of services including skilled installation of a wide range of equipment, laboratory design, planning, and implementation, as well as laboratory expansion and relocation consultation.

Nikon Instruments Inc. – Booth: 1001

1300 Walt Whitman Road Melville, NY 11747
www.nikoninstruments.com

Nikon Instruments will exhibit Ts2R inverted microscope with Emboss Contrast and Ti2-U inverted microscope with NAMC optics. Both microscopes featuring newest Narishige micromanipulator systems. Also being exhibited is SMZ1270 StereoZoom microscope and Ci-L microscope with phase contrast optics for sperm analysis. All microscopes will feature Nikon's newest digital imaging solutions.

NouricheLife, LLC – Booth: 2034

455 W 200 N #306 Salt Lake City, UT 84103
www.nourichelifertility.com

NxGen MDx – Booth: 813

801 Broadway Avenue NW, Suite 203
Grand Rapids, MI 49504
nxgenmdx.com

NxGen MDx is a women's health care company that provides precise genetic screening combined with best-in-class science, unrivaled accuracy, and personal genetic counselors to help you make informed decisions when planning to get pregnant or expecting a baby. For more information, visit www.nxgenmdx.com.

ObsEva S.A. – Booth: 1005

Chemin des Aulx 12
Plan-les-Ouates, Geneva 1228
www.obseva.com



ObsEva is a clinical-stage biopharmaceutical company dedicated to women's health. We are passionately focused on innovation to address serious, quality-of-life impacting conditions and reproductive challenges faced by women worldwide. Our lead compound is nolasiban, an oral oxytocin receptor antagonist, potentially first-in-class, delivering more IVF babies by improving embryo implantation. Our second product, linzagolix, an oral gonadotropin releasing hormone (GnRH) receptor antagonist, is potentially the best-in-class in treating uterine fibroids and endometriosis thanks to the option to treat with or without hormone replacement therapy. Finally, OBE022, an oral and selective prostaglandin F2alpha receptor antagonist, has the potential to save newborn lives by avoiding preterm delivery.

Okolab SRL – Booth: 837

Via G. Di Prisco, 152 Ottaviano, 80044
oko-lab.com

Okolab manufactures - Tri-Gas Mixers for mini-incubators that eliminate the need for expensive premixed cylinders - LEO meter (meter for CO2, Oxygen, Temperature, Humidity, pH and VOC) - Transparent glass heated stage inserts & tables that accurately keep the specimen in temperature and allow at the same time an easy handling of micromanipulation equipment. Unique DUAL controllers with autocalibration routines allow to save money and have unbeatable performance. Models for any ICSI and IMSI set-up.



EXHIBIT COMPANY LISTING

Olympus America Inc. – Booth: 1932

3500 Corporate Parkway Center Valley, PA 18034
www.olympusamerica.com

Our Medical Business works with health care professionals to combine our innovative capabilities in medical technology, therapeutic intervention, and precision manufacturing with their skills to deliver diagnostic, therapeutic and minimally invasive procedures to improve clinical outcomes, reduce overall costs and enhance quality of life for patients. Visit medical.olympusamerica.com and truetolife.com.

Ovation Fertility – Booth: 604

15821 Ventura Blvd Ste 550
Encino, CA 91436-4793
www.ovationfertility.com



Ovation Fertility empowers hope for families by applying the latest advances in reproductive science through a unique collaboration of compassionate clinicians and scientists driven to exceed patients' expectations of outcomes and value.

PacGenomics – Booth: 1927

28222 Agoura Rd Ste 200 Agoura Hills, CA 91301-2412

PacGenomics is committed to improving patient outcomes through optimized reproductive genetic testing. As pioneers in PGT, PacGenomics is currently the only US lab to offer testing that can distinguish between normal and balanced translocation carrier embryos in translocation cases. Offering a comprehensive array of services including PGT-A, PGT-SR, Carrier Screening, POC, and DNA Identity Testing, PacGenomics helps make dreams of a healthy family a reality.

Pacific Coast Reproductive Society – Booth: 2015

2150 N 107th Street Ste 205 Seattle, WA 98133
www.pcrsonline.org

The Pacific Coast Reproductive Society's global commitment to exceptional patient care is embodied in the continuing medical education of physicians, their teams, and allied professionals. Promoting the highest standards of clinical practice, patient safety, and improved patient outcomes, related to the treatment of infertility, is consistent with the principles and goals of PCRS.

Pearl Fertility – Booth: 643

Colorimetrix, Inc. 2093 Philadelphia Pike, Suite #3003
Claymont, DE 19703
www.pearl-fertility.com

The Pearl Fertility System helps couples and physicians monitor key fertility hormones at home. Measure the levels of FSH essential for follicle preparation, measure LH levels at home essential for ovulation to happen. Pearl Kit includes tests for FSH and LH and a mobile app to read and interpret them. • Accurate ovulation tracking (Pearl Kit) • Daily hormone charting at home (Pearl App) • The true Fertile Days at your fingertips (Pearl System)

PerkinElmer Inc. – Booth: 901

940 Winter Street Waltham, MA 02451
www.perkinelmer.com

PerkinElmer, Inc. offers automated solutions which improve the efficiency of genomic and proteomics workflows. With our nucleic acid isolation technology, liquid handlers, library preparation kits, automated nucleic acid and protein analysis systems, and solutions for single cell genetic analysis, PerkinElmer is eliminating the challenges associated with genomic and proteomic analysis.

Physician's Surrogacy – Booth: 1357

3661 Valley Centre Drive, Ste. 150
San Diego, CA 92130
www.physiciansurrogacy.com

Over last 40 years, there have been many advances made in the science and technology of IVF. Unfortunately, the evolution of the 3rd party reproduction agency model has not paralleled those advances. At Physician's Surrogacy, our physician-managed staff of service-oriented professionals, provide distinct advantages over the traditional agency model. Most importantly, we provide the unparalleled advantage of a dedicated, physician-guided, third-party reproduction journey.

Predictive Laboratories – Booth: 1354

2749 E. Parleys Way, Suite 100
Salt Lake City, UT 84109
www.predictivelabs.com

Predictive Laboratories, Inc., a Salt Lake City, UT biotechnology company formed in 2017, is a molecular laboratory focusing on human infertility, women's health, and childhood diseases and performs genetic testing using state-of-the-art instrumentation.



EXHIBIT COMPANY LISTING

Prima-Temp – Booth: 1154

3100 Arapahoe Ave Boulder, CO 80301

PRIYA PERSONAL FERTILITY SENSOR by Prima-Temp Priya has developed as an intravaginal sensor to help you and your patients effortlessly manage their fertility. Priya has been designed to wirelessly capture continuous core body temperature (CCBT) detecting temperature patterns occurring PRIOR to ovulation. This is not BBT or a diary. With Priya, you can confidently offer a scientific solution that helps pinpoint the fertile window for intercourse or IUI. Contact Kevin O'Connor at 303-552-7354

Professional Transition Strategies – Booth: 844

9 Sierra Vista Drive Colorado Springs, CO 80906

Progenesis – Booth: 1011

4150 Regents Park Row Ste 245
La Jolla, CA 92037-1414
progenesis.com



Driven by science and innovation, Progenesis has become the new leader of preimplantation genetic testing to help build healthy families. Our portal design and function is the product of the best minds in the IVF industry, helping to optimize clinics' genetic testing workflow. Our success lies in our passionate team, dedicated to providing the best quality testing and customer care. Phone: (858) 257-2122 Email: info@progenesis.com

Progenity – Booth: 1919

4330 La Jolla Village Dr Ste 200 San Diego, CA 92122-6206
progenity.com

Progenity offers genetic testing that can help your patients grow healthy families, including the Preparent® • Carrier Test and the Innatal® Prenatal Screen. Our team of genetic counselors partner with you to provide test result support for patients. Visit us at Booth #1919 to learn or visit progenity.com.

Progyny – Booth: 914

245 5th Avenue, 4th Floor New York, NY 10010

Progyny is a leading fertility benefits management company that combines clinical and emotional guidance and support, science, technology, and data to provide comprehensive, inclusive, and effective value-based fertility solutions for self-insured employers. Progyny's benefits solutions are designed to improve outcomes, shorten time to pregnancy and reduce total fertility-related costs. Progyny is privately held and is headquartered in New York, NY. Please visit www.progyny.com.

Quark BioSciences, Inc. – Booth: 949

6-2 Shengyi Rd. Sec. 2, 4F-1 Zhubei, Hsinchu, 30261
www.quarkbiosciences.com

By partnering with doctors and researchers worldwide, QuarkBio focuses on developing innovative fertility treatment solutions to be used alongside clinical examinations, improving patients' quality of treatment without the financial burdens. QuarkBio develops innovative tests based on the domain knowledge of our scientists or outside collaborators. QuarkBio assists partners with the co-development of tests on PanelChip® Analysis System, creating ready-to-use products to end-users.

Quick Specialized Healthcare Logistics – Booth: 1656

175-28 148th Avenue Jamaica, NY 11434

Quick's specially trained experts provide customized logistics solutions for your reproductive medicine care. 24/7 pickup and delivery with door-to-door route planning for the fastest and safest transit. Consultation and procurement of appropriate active or passive packaging systems. Temperature-controlled protocols for all temperature ranges, including provision and replenishment of refrigerant as needed. www.quickhealthcare.aero

Rectangle Health – Booth: 1845

115 E Stevens Avenue
Valhalla, NY 10595

<https://www.rectanglehealth.com>



EXHIBIT COMPANY LISTING

Rees Scientific Corp – Booth: 1737

1007 Whitehead Road Ext Ewing, NJ 08638-2405
www.reesscientific.com

As an ISO 9001 certified organization, Rees Scientific is the industry standard for automated temperature monitoring. Our system is designed to be a complete solution for blood banks, pharmacies, and hospitals. We are also an ISO 17025 accredited company that can help meet regulatory requirements for AABB, FDA and Joint Commission.

Reproductive Genetic Innovations – Booth: 1812

2910 Macarthur Boulevard Northbrook, IL 60062-2005
www.rgipgd.com

RGI - Reproductive Genetic Innovations is a recognized global pioneer in the field of preimplantation genetic testing. We have performed PGT testing for thousands of families worldwide.

Reproductive Possibilities LLC – Booth: 1841

1 Paragon Drive, Suite 160 Montvale, NJ 07645
www.reproductivepossibilities.com

We are a Surrogate Agency with the experience and dedicated staff necessary to guide intended parents down the pathway to parenthood. We match intended parents with a gestational carrier and take you step by step on this amazing journey. Our company practices are designed to help you manage your expenses throughout a process which is very expensive. We have successfully helped our clients have over 2000 babies & we would love to add your child/ren to that list. Let us make your dreams come true.

Reproductive Scientist Development Program (RSDP) Booth: 634

500 North Keene, Suite 203 Columbia, MO 65201
www.RDSProgram.org

The Reproductive Scientist Development Program (RSDP) provides career development support for obstetricians and gynecologists who are committed to a basic science career in academic medicine and research. The areas of interests covered by the program are broadly defined, with emphasis in cell and molecular biology as applied to problems in reproductive endocrinology, genetics, maternal-fetal medicine, oncology, infectious disease, or other aspects of reproduction.

ReproSource Fertility Diagnostics – Booth: 1635

300 Trade Center, Suite 6540 Boston, MA 01801
reprosource.com

ReproSource is a CLIA certified and CAP accredited reference laboratory focused solely on fertility and reproductive health testing. ReproSource diagnostic solutions include the Ovarian Assessment Report (OAR), sperm DNA fragmentation testing, comprehensive RPL panels, and the new @ Home Semen Collection system that allows for a comprehensive and accurate semen analysis the day after specimen collection.

Reprotech, Ltd – Booth: 832

33 Fifth Avenue NW, Suite 900 St. Paul, MN 55112
www.reprotech.com

ReproTech, Ltd. specializes in long-term cryostorage and transportation of reproductive tissues. Our 4 facilities provide safe and secure storage managed by experienced staff. ReproTech's proven protocols, 24/7 tank monitoring with data analysis, and disaster safe rooms offer peace of mind to patients. ReproTech's Auto Transfer Management Program enables IVF centers to automatically transfer specimens to a storage center by pre-consenting all patients, thus eliminating abandoned specimens.

Resolve: The National Infertility Association – Booth: 2008

7918 Jones Branch Drive Suite 300
McLean, VA 22102-4306
www.resolve.org

RESOLVE: The National Infertility Association, established in 1974, is dedicated to ensuring that all people challenged in their family building journey reach resolution through being empowered by knowledge, supported by community, united by advocacy, and inspired to act. RESOLVE exists to provide: ♦ Access to Care ♦ Advocacy for Coverage ♦ Access to Support & Community ♦ Access to Education ♦ Awareness of All Family Building Options

Reunite RX – Booth: 941

2290 Springlake Road, Suite 100
Farmers Branch, TX 75234



EXHIBIT COMPANY LISTING

Richard Wolf Medical Instruments – Booth: 701

353 Corporate Woods Pkwy Vernon Hills, IL 60061
www.richardwolfusa.com

Richard Wolf Medical Instruments is dedicated to improving patient outcomes through innovation in endoscopy. For over 100 years, Richard Wolf has pursued endoscopic solutions focused on improving surgical results while reducing patients' trauma. In the pursuit of the spirit of excellence, Richard Wolf prides itself on quality and innovation.

Rite Options – Booth: 1255

1800 JFK Blvd, St. 300
Philadelphia, PA 19103
www.riteoptions.com



Rite Options is a global egg donor & surrogacy agency. Our mission is to assist aspiring parents to grow their family by providing guidance & support throughout their journey, hand in hand with their own medical team. We offer an extensive selection of egg donors & surrogates, who are chosen by our team to meet the high standards on health, education, commitment & personal appeal. We possess solid knowledge of the industry and steadfastly maintain compliance with all regulations & adhere to the standards and guidelines of ASRM. Our team is highly respected in the fertility industry & we have strong relationships with IVF clinics throughout the US, as well as attorneys, psychologists & insurance providers, to make the experience for intended parents more efficient. We service US & International clients of all backgrounds & lifestyles & our services include concierge travel arrangements & alliances with attorneys, translation & newborn insurance agencies to ensure proper logistics.

Roche Diagnostics – Booth: 1314

9115 Hague Road
Indianapolis, IN 46256
diagnostics.roche.com/us/en/home.html



Bronze Level Supporter

Roche is a global leader in pharmaceuticals and diagnostics, focused on advancing science to improve people's lives. The combined strengths in these areas have made Roche the leader in personalized healthcare. Roche is a leading supplier of solutions focused on increasing medical value and testing efficiency. These solutions include integrated clinical chemistry and immunoassay analyzers with the broadest test menu on one platform for early detection, screening, and monitoring of disease.

Rocket Medical PLC – Booth: 1105

150 Recreation Park Dr Ste 1 Hingham, NC 02043-4227
Rocketmedical.com

Rocket Medical has been a worldwide innovator in medical devices for invitro fertilization since 1963. We continue to strive for excellence and continue to strengthen our IVF line as well as our alliances with IVF centers. Our strengths are our Embryon line of embryo transfer catheters and oocyte retrieval needles. Rocket aspiration pumps continue to be the "gold" standard.

RTD Reproductive Technology and Design – Booth: 1556

65 Lancaster Drive Beacon Falls, CT 06403
rtdeng.com

Reproductive Technology and Design is a Design Engineering, IVF Equipment Service, Repair and Manufacturing company in the IVF equipment market segment. Products include Electr-O-Vit for cryopreservation and Electr-O-Cryo for cryosurgical applications. Design Engineering using Solidworks and PDM to support product development as well as sustaining engineering. IVF equipment field service including, maintenance contracts as well as equipment repair. Electricity made its way to Vitrification!

Ruibai Medical USA – Booth: 1827

New York, NY 11355
IVF Products

Salve – Booth: 632

219 St. John Street London, EC1V 4LY
www.salveapp.co.uk

75% of patients are between 23-38, the mobile-first generation. Salve is a mobile-first patient engagement platform working with some of the biggest and best clinics in the world. Through our intelligent delivery engine patients are automatically delivered personalised information to their phones. They receive notifications on their meds, appointments and prompts to ensure they're compliant every step of the way. It also includes secure messaging, payments and results delivery. We're at Booth 632.



EXHIBIT COMPANY LISTING

Samsung – Booth: 1448

14 Electronics Ave. Danvers, MA 01923
www.samsunghealthcare.com

Samsung NeuroLogica, the healthcare subsidiary of Samsung Electronics America, Inc., develops, manufactures and markets innovative imaging technologies and is committed to delivering fast, easy and accurate diagnostic solutions to healthcare providers. NeuroLogica, the global corporate headquarters and manufacturer of Samsung computed tomography, is also the US headquarters for sales, marketing and distribution of all Samsung digital radiography and ultrasound systems.

SCSA Diagnostics – Booth: 1815

302 W 6th St Ste B Brookings, SD 57006-1160
www.scsatest.com

The SCSA remains the most robust test and is the only test of sperm DNA/chromatin for which validated clinical interpretation criteria exist, and these are based on many thousands of tests and hundreds of clinical treatment cycles. Basic Laboratory Andrology. Cambridge Press; 2001. Bjorndahl L, Mortimer D, Barratt C, et.

Seattle Sperm Bank – Booth: 800

4915 25th Avenue NE, Suite 204 Seattle, WA 98105
www.seattlespermbank.com

Seattle Sperm Bank is an industry-leading sperm bank, offering the most comprehensive genetic testing and screening practices with a focus on high quality, Open ID vials with exceptional customer service. Our focus is about combining a personal, compassionate approach with uncompromising medical expertise and the very best in donor selection.

Sema4 – Booth: 1701

333 Ludlow Street, South Building,
3rd Floor
Stamford, CT 06902
www.sema4.com



Sema4 is a patient-centered predictive health company founded on the idea that more information, deeper analysis, & increased engagement will improve the diagnosis, treatment, & prevention of disease. Sema4 is dedicated to transforming healthcare by building more dynamic models of human health & defining optimal, individualized health trajectories, starting with reproductive health & oncology. Sema4 believes patients should be treated as partners, & data should be shared for the benefit of all.

Sensitive Matters – Booth: 1631

85 Studdridge St. London, SW6 3TD
www.sensitivematters.net

Sensitive Matters helps find the right words for tricky subjects. The ASRM strongly encourages early openness with donor conceived children about the use of donor gametes or embryos in their conception. THE MAGIC OF YOU helps parents achieve this for toddlers. These customizable books allow parents to create avatars for the characters in their own story and edit all text. The books are beautifully illustrated, printed on fine paper, with a hardback cover and section to add cherished photos.

shiftMD, LLC – Booth: 855

5000 SW 75th Avenue, Suite 113 Miami, FL 33155
www.shiftMD.com

shiftMD is a mobile-based, proprietary platform which OB/Gyns can download to gain access to a curated marketplace of best-in-class, women's health, non-prescription products they easily dispense to their patients through a simple text message.

Shivani Scientific Industries (P) LTD Booth: 1355



26/A, Raju Indl. Estate. Penkar Pada Road, Mira
Mumbai, Maharashtra 401104
www.shivaniivf.com

We Shivani Scientific Industries (P) Ltd an ISO 9001:2008 and ISO 13485:2012 certified company having its Head Office at Mumbai and the Branch office is at New Delhi. We have two divisions namely 1. Equipment & Project Division (EPD) and 2) IVF Consumables Product Division (CPD) We are highly focused Company for manufacturing of Bio-Medical Equipment with proven track record of 4 decades. Our Company has come out with range of innovative products for IVF Labs designed with State of the Art Technology to give optimum performance with the ultimate aim of improving the success rate in ART. Our main focus is on providing Turn Key Project Services for setting up of In Vitro Fertilization Labs popularly known as Test Tube Baby Centre and Modular Operation Theaters.. Here we provide single window service which includes Site Survey, Lab Design, equipment selection, hands on training, installation, project marketing feasibility studies.



EXHIBIT COMPANY LISTING

Siemens Healthineers – Booth: 1730

40 Liberty Boulevard, Mailcode 40-3E
Malvern, PA 19355
usa.siemens.com/healthineers

Enhance your diagnosis with improved imaging performance and adaptive technologies with ultrasound machines, solutions and services from Siemens Healthineers. Our portfolio of ultrasound machines, sonography equipment and advanced technologies address your clinical requirements offering the versatility and functionality you need for confident diagnosis in your IVF clinic.

SIMULATION PAVILION – Booth: 1133

1209 Montgomery Highway Birmingham, AL 35216-2809

SMP Fertility Pharmacy – Booth: 1627

7425 SW 42 Street Miami, FL 33155
SMPfertility.com

SMP Fertility is an award winning fertility pharmacy that prides itself in exceptional customer service and competitive pricing. All of our patients are connected with a Fertility Care Coordinator that will assist them with their fertility medications, savings programs, and health insurance plans. Our state-of-the-art pharmacy offers services throughout the United States and Internationally. Come visit us at our booth#1627 to see how SMP can assist you and your patients.

Society for the Study of Reproduction – Booth: 2009

11130 Sunrise Valley Drive, Suite 350
Reston, VA 20191
www.ssr.org

The Society for the Study of Reproduction (SSR) was founded in 1967 to promote the study of reproduction by fostering interdisciplinary communication among scientists, holding conferences, and publishing meritorious studies. Today, our members come from 50 countries around the world. Our annual conference showcases the cutting-edge research in the reproductive sciences and serves as a excellent opportunity for networking and career development.

SparMED ApS – Booth: 1049

Ryttermarken 2, Farum, DENMARK 3520
www.sparmed.dk

SparMED is an ISO 9001 & ISO 13485 certified Danish manufacturer of high quality IVF laboratory equipments and disposables. Oosafe® is our worldwide known brand for IVF use. We are the only company manufacturing Class IIa Certified IVF Laboratory Disinfectants. Our main products are Oosafe® IVF Laboratory Disinfectants, IVF Tested Plasticware, Inline Filters, Color Cryo Canes and Tags, IVF Laboratory Garments, ICSI Pulator Micromanipulator, Air Cleaner, IVF Laboratory Air Quality Control System

Spectrum Technologies- Your Pure Sperm Source Booth: 1735

1532 Chablis Road Suite 101 Healdsburg, CA 95448
www.yourpurespermsource.com

Sperm Processor Pvt. Ltd. – Booth: 1838

6, Welcome Nagar, Aditya Nagar, Garkheda
Aurangabad-431005, Maharashtra 431005
www.spermprocessor.com

Sperm Processor is the innovation driven company providing end to end solution for Andrology Labs with specially developed, instruments, a wide range of kits, disposables and reagent along with SpermSoft (CASA, a system for Analyzing Fertility Potential of Sperm, Patent applied), the first ever company to introduce Instrument Rental, Reagent Scheme for Andrology Laboratory across Globe. Sperm Processor is ISO 13485 accredited & CE accredited, also registered for GMDN & US FDA.

Sperm Source – Booth 1735

Springer Nature – Booth: 2007

One New York Plaza, Suite 4600 New York, NY 10004
www.springernature.com

Springer Nature is one of the world's leading global research, educational and professional publishers, home to an array of respected and trusted brands providing quality content through a range of innovative products and services. Springer Nature is the world's largest academic book publisher and numbers almost 13,000 staff in over 50 countries. www.springernature.com



EXHIBIT COMPANY LISTING

Sunlight Medical – Booth: 938

5570 Florida Mining Blvd S Ste 603
Jacksonville, FL 32257-3248
www.sunlightmedical.net

Sunlight Medical Inc is specialized in manufacture and supply of high quality micropipettes for human IVF procedures such as ICSI, embryo biopsy, assisted hatching and denudation. We offer consistent high quality products and competitive pricing.

The Joint Commission – Booth: 943

1515 W. 22nd St Suite 1300W Oak Brook, IL 60523

The Permanente Medical Group, Inc. – Booth: 1935

11980 Telegraph Road, Suite 200
Santa Fe Springs, CA 90670
www.kp.org

The VFP Group – Booth 1808

The World Egg Bank – Booth: 1104

7227 N 16th ST, ste 160 Phoenix, AZ 85020
www.TheWorldEggBank.com

The World Egg Bank is the only egg bank worldwide built solely for egg donation. Our unique centralized business model ensures we conduct all egg vitrification with optimized protocols and the same experienced laboratory systems and staff. Our only operational focus is providing quality donor eggs from our state of the art facility designed solely for egg freezing. We manage all recruiting, screening, stimulation, retrievals, vitrification, and shipping from our egg banking facility.

Theralogix – Booth: 713

401 E Jefferson Street, Suite 108
Rockville, MD 20850-2617
theralogix.com

Guided by recognized ART experts and an eminent Medical Advisory Board, Theralogix offers the only full line of independently-certified fertility supplements. Setting the standard with an evidence-based approach, all products are also third-party tested for content, dose accuracy, and freedom from contaminants. Theralogix supplements are recommended by providers worldwide and used by hundreds of U.S. ART practices. For more information, visit www.theralogix.com



TherapeuticsMD – Booth: 1149

TherapeuticsMD

6800 Broken Sound Pkwy NW, Suite 150
Boca Raton, FL 33487
www.therapeuticsmd.com

Bronze Level Supporter

TherapeuticsMD, Inc. is an innovative pharmaceutical company exclusively committed to advancing the health of women and championing awareness of their healthcare issues. We create products to address the unique changes and challenges women experience through every stage of their lives. With momentum fueled by the needs of our customers, we combine entrepreneurial spirit and clinical expertise to develop innovative solutions designed to go beyond what is presently available.

Thermo Fisher Scientific – Booth: 1601

5823 Newton Dr. Carlsbad, CA 92008-7321
www.thermofisher.com

Thermo Fisher Scientific provides the most comprehensive genomic analysis to address genetic testing for the entire reproductive lifecycle – from preconception carrier screening, preimplantation genetic testing, prenatal, to postnatal applications, and inherited disease research; expanding labs' test menus.

TMRW Life Sciences – Booth 639

160 Mercer Street New York, NY 10012
www.TMRW.org

TMRW

Bronze Level Supporter

TOKAI HIT Co., Ltd. – Booth: 1044

306-1, Gendoji-cho, Fujinomiya-shi
Shizuoka-ken,, Japan 418-0074
www.tokaihit.com

Tokai Hit ThermoPlate enable more accurate temp. control on microscopes. We will exhibit: -ThermoPlate for Vitrification: It is exclusively designed for vitrification. -New TPiD series: It comes with 2-channel controller which can control 2 plates at the same time. -Entire Surface Heating Plate: The unit has metal and glass heaters for wide working space. -ThermoPlate for slide glass: For sperm analysis on upright microscopes. Please visit our booth 1044 to check new products.



EXHIBIT COMPANY LISTING

Tosoh Bioscience – Booth: 1944

6000 Shoreline Court, Suite 101
South San Francisco, CA 94080
www.tosohbioscience.us

Tosoh Bioscience Inc (TBI) provides highly sophisticated diagnostic systems for immunoassay and HPLC testing to doctor's offices, hospitals and reference laboratories throughout the Americas. Tosoh builds upon its proven reputation and maintains leadership in Clinical Diagnostics. With state-of-the-art immunoassay and HPLC systems, Tosoh offers superior instrumentation to continually meet the operational and economic needs of laboratories today and in the future.

Uberlube – Booth: 2044

8833 Lincolnwood Dr. Evanston, IL 60203-1926
www.uberlube.com

Uberlube Luxury Lubricant Not harmful to healthy bacteria or pH levels Physician recommended, used in OB-GYN practices Cruelty free with no animal products and vegan friendly No alcohol, no gluten, no glycerin, no parabens, no scents and flavors Latex safe but not recommended for use with silicone Made in USA Uberlube for Sex: transfer sensation while reducing friction Uberlube for Sport: long lasting anti-chafe Uberlube for Style: finish hair with perfect understated sheen.

Unilab of Dade, Inc. – Booth: 1941

2145 Davie Blvd Ste 106 Fort Lauderdale, FL 33312-3155

Unilab offers an extensive testing menu: diagnostics (including male infertility), in-cycle monitoring and FDA donor testing. Since being founded in 1988 by Dr Julio Cortes Unilab has served physicians and patients by providing the fastest turnaround time while upholding the highest standards of accuracy and precision. The lab is FDA-registered and provides testing to clients worldwide.

United Medical Credit – Booth: 835

2100 Main Street, Suite 350 Irvine, CA 92614

United Medical Credit's mission is to secure payment solutions for more of your patients at a lower cost to your practice. By using multiple lenders, we can finance more of your patients-even those with less than perfect credit. * Prime, midprime and subprime finance options with one simple online application *30-40% more approvals *Competitive rates for your patients with terms up to 60 months and loans up to \$40000 Come by our booth to learn more!

Univfy Inc. – Booth: 841

1 1st Street, Suite 16, Los Altos, CA 94022-2756
www.univfy.com

The Univfy AI Platform for IVF defines a new era, combining machine learning, AI and fintech to dramatically improve the experience of fertility patients, increase success rates and make highly effective treatment affordable to more women and couples.

Vaisala Inc. – Booth: 1457

10D Gill St. Woburn, MA 01801
www.vaisala.com

VAISALA

Vaisala provides high-performance monitoring, measurement and validation systems for regulated and GxP environments. With fail-safe monitoring and alarming of humidity, temperature, CO2, differential pressure and more, we provide an unbeatable combination of technology, experience and services on a global basis. Vaisala's Continuous Monitoring Systems deliver gap-free data and industry-best accuracy, with an intuitive, easy to use customer interface.

Vanguard Communications – Booth: 1833

2400 N Broadway, Suite 3, Denver, CO 80205-2087

We're a group of multidisciplinary healthcare marketing and practice improvement professionals that take practices from good to peerless. Our MedMarketLink program guarantees 15-30% new-patient growth in year one, or we work for free (and in 25 years, we've never had to work for free). It includes public relations, marketing and internet technology. Our MedAmorphosis process and efficiency training eases provider burnout, cuts staff turnover and boosts patient satisfaction.

Vermont Surrogacy Network, LLC – Booth: 1910

38 N. Main Street, Box 109 St. Albans, VT 05478
vtsurrogacy.com

Vermont Surrogacy Network provides families throughout Vermont, New England and the world with an ethical, affordable and supportive environment for all. VSN dedicates its efforts to serving intended parents and gestational carriers with diligence and compassion, ensuring all parties understand the complex process of gestational surrogacy. VSN offers a naturally supportive environment by keeping surrogacy personal with video conferencing, in-person interviews and consultations.



EXHIBIT COMPANY LISTING

Village Fertility Pharmacy, Inc. – Booth: 1808

335 Bear Hill Rd Waltham, MA 02451
www.villagepharmacy.com

For over thirty years, VFP Pharmacy Group has built a reputation by providing fast, compassionate and dependable service to fertility professionals and their patients. Our focus is on exceptional service and competitive pricing. You will find our staff thoroughly knowledgeable about the medications we provide and the issues you face.

VitaVitro Biotech Co., Ltd. – Booth: 801

R601 Building C Hai Ke Zing Tech Park Pingshan
518118 Shenzhen City, Guangdong Province
www.vitavitro.com

VitaVitro is the first Chinese company fully specialized in high quality support for human IVF laboratories worldwide. Products of VitaVitro include a complex vitrification technology based in high-rate cooling and warming, IVF media and labwares for the entire ART journey. VitaVitro's activities are also dedicated to open new ways for automation, an imperative step to raise embryo techniques.

Vitrolife, Inc. – Booth: 1014

3601 S Inca St
Englewood, CO 80110-3430
www.vitrolife.com



Maximise success every step of the way We provide what you need to secure improved results throughout the IVF journey. The key to success in IVF is care. Care in retrieval and handling of gametes and embryos, culture and evaluation, cryopreservation and transfer. Careful handling of gametes and embryos outside the human body is an enormous challenge. Our unbroken chain of innovative high quality products ensure optimal care at every step throughout the IVF treatment. Learn more at www.vitrolife.com and visit us in booth 1014 to see how we can help you meet the challenges of IVF – from retrieval to transfer.

Walgreens – Booth: 1215

304 Wilmot Road, MS #3B55 Deerfield, IL 60015
www.walgreenshealth.com

Walgreens and AllianceRx Walgreens Prime provide specialized fertility pharmacy services through an experienced care team available 24/7 devoted to helping patients achieve successful outcomes. We understand the importance of timing and the need for personalized treatment and are committed to compassionate care and support throughout a patient's journey to having a family.

WINFertility – Booth: 1834

1 American Lane, Terrace Level Greenwich, CT 06831

WINFertility is the largest fertility benefit management company in the U.S., delivering family-building benefit solutions to employers, payers and individual patients. With more than 20 years of experience, WIN helps providers grow their practice, improve patient experience and simplify administration. Connect with WIN to join its network and gain access to employer group contracts, health plan contracts and consumer direct programs by visiting www.winfertility.com/providers.

Wolters Kluwer – Booth: 2006

Two Commerce Sq, 2001 Market Street
Philadelphia, PA 19103
shop.lww.com

Wolters Kluwer provides trusted clinical technology and evidence-based solutions that engage clinicians, patients, researchers, students, and the next generation of healthcare providers. With a focus on clinical effectiveness, research and learning, safety and surveillance, and interoperability and data intelligence, our proven solutions drive effect decision-making and consistent outcomes across the continuum of care.

Worthington Industries – Booth: 742

4075 Hamilton Blvd. Theodore, AL 36582
worthingtonindustries.com/Products/Life-Sciences-Cryogenic-Equipment

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Xytex Cryo International – Booth: 1100

1100 Emmett St Augusta, GA 30904-5826

Since 1975, Xytex has been providing the expertise needed to help people fulfill their dreams of starting or growing a family through sperm donation. As an international cryoservices leader, we are committed to unsurpassed quality and giving our clients an experience to cherish for a lifetime.



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Yad-Tech Inc – Booth: 1809

6900 decarie Blvd. #226 Montreal QC, QC H3X 2T8

Natural Supplements for better health. Yad-Tech is a research and development company of all-natural, nutritional products promoting the health of both men and women, specializing in various fields, including urology, cardiology, gynecology, gastroenterology, nutritional science as well as reproductive health. Our Fertil Pro® line of products for men and women were designed by the leading fertility experts and are the top recommended natural fertility supplements in Canada.

Yale University – Booth: 1449

FMB 225, Dept Ob/Gyn, 310 Cedar Street
New Haven, CT 06510-3218
klimanlabs.yale.edu

Patients can now have their endometrium tested with the Endometrial Function Test (EFT). This patented test can optimize a patient's chances of having a successful pregnancy by using molecular markers to assess the endometrium's potential to support implantation and its ability to contribute to the nutrition of the developing embryo.

Yikon Genomics, Inc. – Booth: 1557

16192 Coastal Hwy Lewes, DE 19958-3608
www.noninvasivepgta.com

Yikon Genomics is the first lab in the world to offer clinical a non invasive PGT-A solution called NICS, which allows PGT-A to be performed utilizing the DNA present in spent culture media. This test has been fully validated and demonstrates a 100% NPV, virtually eliminating the problem of false positives due to mosaicism.

Zinkbryggan AB – Booth: 644

Solvagen 7 Nyköping, SE61150
www.zinczperm.com

Glass Artwork - ANOVA Glass Sperm and Egg Mobiles Design by Sperm researcher Ulrik Kvist at ANOVA Karolinska University Hospital and Karolinska institute The glass artist is Poul Jørgensen at Kastlösa Glashytta in Öland, Sweden - www.kastlosaglashytta.se The Artwork is composed of Swedish Glass, Swedish Wood and Swedish Stainless Steel. The ANOVA Glass Sperm and Egg mobiles are, delivered in Swedish wooden boxes imbedded in wooden-wool. Zona pellucidas are in Swedish steel. www.zinczperm.com

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Benefiting the ASRM Research Institute



Join us this year for the ASRM 75th Anniversary Gala benefiting the ASRM Research Institute during ASRM's 2019 Scientific Congress & Expo, October 12 – 16, 2019, in Philadelphia, PA.

All Congress attendees are invited to a festive evening of fine dining, mingling and the unveiling of the highly-anticipated Legacy Art Exhibit, celebrating ASRM's 75th Anniversary.

Sunday, October 13, 2019

6:00 p.m.

National Constitution Center

Black tie optional.

Tickets are \$500 per person. Purchase your ticket at www.asrmcongress.org when you register for the Congress. For larger groups or table sales, contact Cara Dawn Byford at cbyford@asrm.org.

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