

<b>SYMPOSIUM III</b>	
<b>ION CHANNELS AND TRANSPORTERS IN MALE REPRODUCTION AND PHYSIOLOGY</b>	
<b>10:00 AM - 12:05 PM</b>	<b>SESSION I: MALE REPRODUCTIVE SYSTEMS AND SPERM</b> Celia Santi, MD, PhD; Jae Hwang, PhD
10:00 AM	LIVE Opening Remarks <i>Celia Santi, MD, PhD; Jean-Ju Chung, PhD</i>
10:05 AM	Genetic Defects in Sperm Flagella Beat Generation and Regulation <i>Heymut Omran, MD</i>
10:25 AM	Sperm Ca <sup>2+</sup> Signaling Nanodomains <i>Jean-Ju Chung, PhD</i>
10:45 AM	Young Investigator Talk #1: Cilia Function in Epididymis <i>Clemence Belleannee, PhD</i>
11:00 AM	Capacitated Sperm Develop Hyperactivated Motility and Undergo Acrosomal Exocytosis. And Then What? <i>Mariano Buffone, PhD</i>
11:20 AM	Chloride Channels in Sperm Physiology <i>Alberto Darszon, PhD</i>
11:40 AM	LIVE Q&A
12:05 PM	BREAK
<b>1:00 PM - 3:00 PM</b>	<b>SESSION II: ION CHANNELS AND TRANSPORTERS IN GENERAL PHYSIOLOGY</b> <i>Jean-Ju Chung, PhD; Lis Puga Molina, PhD</i>
1:00 PM	The Multiple Roles of the Polycystin Proteins: Ion Channel, GPCR and Regulators of Mitochondrial Metabolism <i>Michael Caplan, MD, PhD</i>
1:20 PM	Glucose Transporters in Kidney Epithelial Cells <i>Timo Rieg, MD</i>
1:40 PM	Young Investigator Talk #2: V-ATPase+ Epithelial Cells - New Influencers of the Epididymal Mucosal Immunity <i>M. Augustina Battissone, PhD</i>
1:55 PM	Young Investigator Talk #3: Under Pressure - The Role of PIEZO2 in Urination <i>Kara Marshall, PhD</i>
2:10 PM	Regulation of Cellular Bioenergetics by Intracellular Ca <sup>2+</sup> Ion Channels <i>Kevin Foskett, PhD</i>
2:30 PM	LIVE Q&A
2:55 PM	LIVE Closing Remarks <i>Celia Santi, MD, PhD; Jean-Ju Chung, PhD</i>

ADVANCES IN CLINICAL AND LABORATORY TECHNIQUES FOR OBSTRUCTIVE AND NON-OBSTRUCTIVE AZOOSPERMIA PATIENTS	
<b>11:00 AM - 12:50 PM</b>	<b>OBSTRUCTIVE AZOOSPERMIA</b> <i>James Smith, MD, MS</i>
11:00 AM	Welcome <i>James Smith, MD, MS</i>
11:10 AM	Sperm Retrieval Techniques for Obstructive Azoospermia <i>R. Matt Coward, MD</i>
11:30 AM	How, Why, and When to Perform Vasoepididymostomy <i>Mary Samplaski, MD</i>
11:50 AM	Sperm Selection and Considerations in Obstructive and Non-Obstructive Azoospermia Patients <i>Ki Aston, PhD</i>
12:10 PM	On the Use of Optical Tweezers to Separate Sperm: A Forensics Application <i>Joseph Reiner, PhD</i>
12:30 PM	LIVE Q&A
12:50 PM	BREAK
<b>1:05 PM - 2:45 PM</b>	<b>ADVANCES IN ENGINEERING, SPERM MANIPULATION, AND SPERM METABOLISM. EMERGING TECHNOLOGIES IN MALE REPRODUCTIVE TRACT</b> <i>James Smith, MD, MS</i>
1:05 PM	High-Throughput Mouse Genome Editing Using CRISPR-EZ and CRISPR-READI <i>Andrew Modzelewski, PhD</i>
1:25 PM	From Glowing Penis to Oocyte-Producing Testis: The Power of Mouse Genetics on Andrology <i>Humphrey Yao, PhD</i>
1:45 PM	Novel Advances in Testicular Imaging – Shedding Light on Spermatogenesis <i>Marc Spehr, PhD</i>
2:05 PM	Healthy Sperm Selection with Magnetic Nanoparticles <i>Jean M. Feugang, PhD</i>
2:25 PM	LIVE Q&A
2:45 PM	BREAK
<b>3:00 PM - 4:40 PM</b>	<b>NON-OBSTRUCTIVE AZOOSPERMIA</b> <i>James Smith, MD, MS</i>
3:00 PM	Clinical and Surgical Problems of Non-Obstructive Azoospermia <i>Keith Jarvi, MD</i>
3:20 PM	Advances in Laboratory Techniques to Identify Sperm from Non-Obstructive Azoospermia Patients <i>Tim Jenkins, PhD</i>
3:40 PM	Advances in Preoperative Planning Techniques to Identify High Quality Sperm <i>Christopher Deibert, MD</i>
4:00 PM	Laboratory and Clinical Advances in Identification of Healthy Sperm <i>James Hotaling, MD</i>
4:20 PM	LIVE Q&A

**SYMPOSIUM IV  
 EMOTIONAL HEALTH AND MALE INFERTILITY**

<b>8:00 PM - 9:30 PM</b>	<b>SYMPOSIUM IV: EMOTIONAL HEALTH AND MALE INFERTILITY</b> <i>Jennifer R. Hughes, PhD; Maxwell Edmonds, PhD</i>
8:00 PM	Welcome <i>Michael Palladino, PhD</i>
8:05 PM	A 200 Pound Weight': Emotions and Men's Experiences of Infertility <i>Ann V Bell, PhD</i>
8:20 PM	Unpacking Men's Mental Health <i>John Oliffe, PhD, RN</i>
8:35 PM	Upstream Determinants, Self-Care, and Infertility: Possible Links <i>Michael Rovito, PhD, CHES, FMHI</i>
8:50 PM	LIVE Q&A <i>Ann Bell, PhD, John Oliffe, PhD, RN, Michael Rovito, PhD CHES, FMHI, Barbara Collura</i>

6:00 PM - 6:10 PM	<b>ASA PRESIDENT'S WELCOME AND OPENING REMARKS</b> <i>Michael Palladino, PhD</i>
6:10 PM - 6:30 PM	<b>DISTINGUISHED ANDROLOGIST AWARD</b> <b>Introduction</b> <i>Cristian O'Flaherty, DVM, PhD</i> <b>Award Recipient</b> <i>John Aitken, PhD, ScD, FRSE, FSRB</i>
6:30 PM - 7:20 PM	<b>WOMEN IN ANDROLOGY LECTURE</b>
6:30 PM	<b>Introduction</b> <i>Martine Culty, PhD</i>
6:35 PM	<b>Fundamentals of Cell Signaling Down Under</b> <i>Kate Loveland, PhD</i>
7:10 PM	<b>LIVE Q&amp;A</b>
7:20 PM - 7:35 PM	<b>DISTINGUISHED SERVICE AWARD</b> <b>Introduction</b> <i>Celia Santi, MD, PhD</i> <b>Award Recipient</b> <i>Patricia Cuasnicu, PhD</i>
7:35 PM - 7:50 PM	<b>MATTHEW HARDY YOUNG ANDROLOGIST AWARD</b> <b>Introduction</b> <i>Celia Santi, MD, PhD</i> <b>Award Recipient</b> <i>Clemence Belleannee, PhD</i>
7:50 PM	<b>BREAK</b>
8:00 PM - 8:50 PM	<b>INTERNATIONAL LECTURE</b>
8:00 PM	<b>Introduction</b> <i>Patricia Cuasnicu, PhD</i>
8:05 PM	<b>CRISPR/Cas9 Genome Editing and its Application in the Study of Fertilization</b> <i>Masahito Ikawa, PhD</i>
8:40 PM	<b>LIVE Q&amp;A</b>

<b>11:00 AM - 11:50 AM</b>	<b>DIVERSITY LECTURE</b>
11:00 AM	Overview and Introduction of Speakers <i>Hooman Sadri, MD, PhD</i>
11:03 AM	Introduction of Diversity Lecturer <i>Carol Meerschaert</i>
11:10 AM	Impacting eXtraordinary: Klinefelter Syndrome at the Intersection of Research, Clinical Care and Community <i>Susan Howell, MS, CGC, MBA</i>
11:40 AM	LIVE Q&A
11:50 AM	BREAK
<b>12:00 PM - 1:45 PM</b>	<b>SYMPOSIUM I TESTIS BIOLOGY, SPERMATOGENESIS, STEROIDOGENESIS</b>
12:00 PM	Overview and Introduction of Speakers <i>Jean-Ju Chung, PhD; Ru-Pin Chi, PhD</i>
12:05 PM	Age-Dependent Alterations in Meiotic Recombination Underlie Sperm Aneuploidies in Mice and Men <i>Francesca Cole, PhD</i>
12:25 PM	Probing Testis-Specific Gene Expression Through the Generation of Single Regulatory Element-Specific Mutations in the Mouse <i>Robert S. Viger, PhD</i>
12:45 PM	In Vitro Spermatogenesis, Bench to Bedside <i>Ryan Flannigan, MD</i>
1:05 PM	The Immune Environment of the Testis and Epididymis: From Bed to Bench and Back <i>Andreas Meinhardt, PhD</i>
1:25 PM	LIVE Q&A
1:45 PM	BREAK
<b>2:00 PM - 3:45 PM</b>	<b>SYMPOSIUM II CONTRIBUTIONS OF THE EPIDIDYMIS AND SEMINAL PLASMA TO FERTILITY</b>
2:00 PM	Overview and Introduction of Speakers <i>Lis Puga Molina, PhD; Clemence Belleannee, PhD</i>
2:05 PM	The Pleiotropic Effects of Seminal Plasma <i>Nadia Roan, PhD</i>
2:25 PM	Novel Role for Epididymal Clear Cells in Sperm Maturation and Mucosal Immunity <i>Sylvie Breton, PhD</i>
2:45 PM	Does Sperm Retrieval from Epididymis Negatively or Positively Affect IVF/ICSI Outcomes? <i>Sarah Vij, MD</i>
3:05 PM	Sperm MicroRNAs Acquired During Epididymal Passage Transmit Epigenetic Information to Offspring <i>Colin Conine, PhD</i>
3:25 PM	LIVE Q&A
3:45 PM	BREAK
<b>4:00 PM - 4:50 PM</b>	<b>AUA LECTURE</b>
4:00 PM	Introduction <i>James Smith, MD, MS</i>
4:05 PM	Bringing it All Together: Precision Medicine in Male Infertility <i>Kathleen Hwang, MD</i>
4:40 PM	LIVE Q&A
<b>4:50 PM - 6:00 PM</b>	<b>NETWORK TABLE</b>

<b>11:00 AM - 11:50 AM</b>	<b>EMIL STEINBERGER MEMORIAL LECTURE</b>
11:00 AM	Introduction <i>George Gerton, PhD</i>
11:05 AM	The Regulation of Sox9 Expression in the Initiation and Maintenance of Gonadal Fate <i>Robin Lovell-Badge</i>
11:40 AM	LIVE Q&A
11:50 AM	BREAK
<b>12:00 PM - 1:20 PM</b>	<b>SYMPOSIUM V: ADDRESSING THE CHALLENGES IN MALE FERTILITY</b>
12:00 PM	Overview and Introduction of Speakers <i>Marc Spehr, PhD; James Hotaling, MD</i>
12:05 PM	Sperm Signaling in ART and Science <i>Pablo Visconti, PhD</i>
12:25 PM	Understanding the Sperm Redox Regulation to Tackle Male Infertility <i>Cristian O'Flaherty, DVM, PhD</i>
12:45 PM	Testicular Dysgenesis Syndrome, Germ Cell Cancer and Environment <i>Michael Eisenberg, MD</i>
1:05 PM	LIVE Q&A
1:20 PM	BREAK
<b>1:35 PM - 2:00 PM</b>	<b>SYMPOSIUM VI (PART I) MALE CONTRACEPTION LANDSCAPE - NEW TARGETS AND APPROACHES</b>
1:35 PM	LIVE Funding and Commercialization Panel <i>Moderators: Jennifer R. Hughes, PhD, Alexander Travis, VMD, PhD</i> <i>Panelists: Daniel Johnston, PhD, Logan Nickels, Heather Vahdat</i>
<b>2:00 PM - 3:25 PM</b>	<b>SYMPOSIUM VI (PART II) MALE CONTRACEPTION LANDSCAPE - NEW TARGETS AND APPROACHES</b>
2:00 PM	Overview and Introduction of Speakers <i>Jennifer R. Hughes, PhD; Alexander Travis, VMD, PhD</i>
2:05 PM	Recent Progress in the Discovery and Development of Non-Hormonal Male Contraceptive Agents <i>Gunda Georg, PhD</i>
2:25 PM	Vasectomies and Vasectomy Reversals <i>Mary Samplaski, MD</i>
2:45 PM	SLO3 Potassium Channel: A Novel Contraceptive Target <i>Celia Santi, MD, PhD</i>
3:05 PM	LIVE Q&A
3:25 PM	INDUSTRY SPONSORED PRODUCT THEATER
<b>3:40 PM - 3:55 PM</b>	<b>NIH/NICHD UPDATE</b> <i>Stuart Moss, PhD</i>
<b>3:55 PM - 4:35 PM</b>	<b>TRAINEE MERIT AWARD PRESENTATIONS</b>
3:55 PM	Award Announcement and Introduction <i>Kate Loveland, PhD</i>
4:05 PM	Award Talk #1
4:15 PM	Award Talk #2
4:25 PM	Award Talk #3
4:35 PM	BREAK
<b>4:40 PM - 6:00 PM</b>	<b>LIVE ANNUAL BUSINESS MEETING</b>

**INDUSTRY SPONSORED PRODUCT THEATER**

**3:25 PM** Sponsored by Male Contraceptive Initiative

**THE WHO, WHAT, WHY, AND HOW OF MALE CONTRACEPTION**  
*Male Contraceptive Initiative Staff & Grantees*