

ASRI
2023
MAY 21-25
SANTA FE, NM

THE 42ND ANNUAL MEETING
of the
AMERICAN SOCIETY for
REPRODUCTIVE IMMUNOLOGY



SANTA FE, NEW MEXICO
La Fonda on the Plaza Hotel



ASRI 2023 MEETING

WELCOME TO SANTA FE NEW MEXICO

MEETING CO-CHAIRS

Gil Mor, MD, PhD
Wayne State University

Surendra Sharma, MD, PhD
Women & Infants Hospital

Charles R. Wira, PhD
Dartmouth Medical School

ASRI PRESIDENT

Irina Burd, MD, PhD
University of Maryland

PROGRAM COMMITTEE

Ricardo Barini, PhD

Ai-ris Collier, PhD

Jiahui "Candy" Ding, PhD

Irina Burd, MD, PhD

Mei-Rong Du, PhD

Eliazbeth Enninga, PhD

Mimi Ghosh, PhD

Amy Gillgrass, PhD

Sylvie Girard, PhD

Brittany Goods, PhD

Nazeeh Hanna, MD

Florian Hladik, PhD

Sukanta Jash, PhD

Charu Kaushic, PhD

Sung-Ki Li, PhD

Ramkumar Menon, PhD

Indira Mysorekar, PhD

Maide Ozen, PhD

Marta Rodriguez-Garcia, MD, PhD

Gilda Tachedjian, PhD

Kristina Adams Waldorf, PhD

ASRI MEETING OVERVIEW

MEETING OBJECTIVES

At the conclusion of the meeting, all participants should be able to:

- I. Summarize recent advances in understanding of mechanism of action and potential interventions including vaccines to combat infections of the reproductive tract.
- II. Explain new and novel technologies in the field of reproductive immunology that permit access to early in utero environment.
- III. Evaluate the latest cutting-edge research to understand developmental origins of adult health.
- IV. Value being an active participant in making the academic environment more equitable and inclusive.

CME ACCREDITATION

Amedco LLC designates this live activity for a maximum of **36.5 AMA PRA Category 1 Credits™**.

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

ABOUT ASRI

The American Society for Reproductive Immunology (ASRI) was founded in 1981 with the mission to foster the development of reproductive immunology research, increase intellectual exchange between clinical and basic branches of reproductive immunology and provide mentoring for scientists-in-training.

The ASRI is home to a diverse membership that includes clinical and basic scientists specializing in Obstetrics & Gynecology, Reproductive Biology, Microbiology, Mucosal Immunology, Genetics, Pediatrics, Infectious Diseases, Endocrinology, Pathology and Animal Sciences.

Since its inception, the society has held an annual meeting to promote collaboration, cross-disciplinary research and mentorship within the field of Reproductive Immunology.

TABLE OF CONTENTS

ASRI President's Welcome.....	4
Meeting Chair's Welcome.....	5
Sponsors.....	6
Agenda at-a-Glance.....	7
Detailed Scientific Program.....	8-18
ASRI Awards.....	19
Speakers & Chairs.....	20
Invitation to the 2024 ASRI Meeting.....	21
Abstract Proceedings.....	22+



WELCOME FROM THE ASRI PRESIDENT

Dear Colleagues and Friends,

Welcome to the 42nd Annual Meeting of the American Society for Reproductive Immunology (ASRI) in the heart of historic Santa Fe, New Mexico! The theme of the ASRI 2023 is appropriate for our times and the beautiful surroundings for our meeting, "*The Convergence of Scientific Research and Clinical Medicine in Reproductive Immunology.*" Program Co-Chairs, Drs. Gil Mor, Surendra Sharma and Chuck Wira, along with the Program Committee have assembled a wonderful program highlighting the most up-to-date scientific advances in the field of Reproductive Immunology.

Through the year, we continued to work on our strategic plan, adopted by the ASRI Council, and are excited to provide services for continuing medical education of Reproductive Immunology Fellows. In an effort to promote standardization of training for fellows, ASRI has developed a formal process for eligible programs to earn an endorsement of the ASRI as an approved fellowship in Clinical Reproductive Immunology. Furthermore, ASRI has developed guidelines for training programs that address specific curricular elements, scholarship, clinical experience along with faculty support and continuing medical education. Towards the support of the clinical fellowships, Drs. Gil Mor and Joanne Kwak-Kim compiled a one-day Clinical Course in Reproductive Immunology which will precede the annual meeting.

More than ever in the current times of burn out, it is important to pay attention to our junior membership, supporting diversity, equity, and inclusion in science, making sure that young investigators are valued, sponsored, and feeling supported. I am very excited about the work of all of our committees this year, especially paying attention to these important issues. I am looking forward to hearing the reports from our committees at our business meeting and welcome all of you attend the business meeting as well.

I am excited that the ASRI Annual Meeting is planned this year to be in-person and will bring together research scientists and health care providers from around the world. The ASRI was founded to foster the field of Reproductive Immunology so that clinicians and basic scientists could better understand immune-based etiologies of underlying reproductive diseases. We hope that the networking at the annual meeting will energize ASRI members and guests for future collaborations among clinicians and scientists. So, we are waiting for you at the La Fonda on the Plaza hotel to celebrate the convergence of science!

Sincerely,



Irina Burd, MD, PhD
ASRI President
University of Maryland



WELCOME FROM THE MEETING CHAIRS



Dear Colleagues,

On behalf of the American Society for Reproductive Immunology, it is with great enthusiasm that we invite you to attend our 42nd Annual Meeting, to be held in Santa Fe, New Mexico. This meeting brings together basic scientists, clinician-scientists and healthcare providers who work together to translate scientific discoveries into improved patient care.

The Santa Fe River was the reason humans came to this area several thousand years ago, and the river runs through the heart of Santa Fe for 46 miles to its confluence with the Rio Grande. Fitting with the region's deep history, the theme for this year's meeting is "The Convergence of Scientific Research and Clinical Medicine in Reproductive Immunology". This meeting brings together basic scientists, clinician-scientists and healthcare providers who work together to translate scientific discoveries into improved patient care.

The Scientific Program committee has put together an exciting schedule of events, including plenary and break-out sessions led by leading national and international experts in the fields of Obstetrics & Gynecology, Immunology, Pediatrics, Infectious Diseases, Genetics, and Developmental Biology.

We are super excited about this year's program, which consists of 18 cutting-edge sessions proposed by our members, in addition to 4 plenary sessions, a trainee competition, poster presentations and multiple networking events. This year's program promises to promote innovation and diversification of reproductive immunology and generate a valuable learning experience.

We hope you will take advantage of all that Santa Fe has to offer during your stay - from historic architecture and native pueblos to world-class art galleries, outdoor activities and abundant local culture, the "City Different" offers a variety of experiences for everyone.

Welcome to Santa Fe!

Gil Mor, MD, PhD
Wayne State Univ.
Meeting Co-Chair

Surendra Sharma, MD, PhD
Women & Infants Hospital
Meeting Co-Chair

Charles R. Wira, PhD
Dartmouth College
Meeting Co-Chair



EXECUTIVE COUNCIL

President

Irina Burd, MD, PhD

Vice President

Akitoshi Nakashima, PhD

Treasurer

Ana Zenclussen, PhD

Secretary

Indira Mysorekar, PhD

President-Elect

David Aronoff, PhD

Immediate Past President

Gil Mor, MD, PhD

Editor-In-Chief, AJRI

Surendra Sharma, MD, PhD

Historian

Nazeeh Hanna, MD

Councilors

Ramkumar Menon, MD

Elizabeth Enninga, PhD

Sylvie Girard, PhD

Marta Rodriguez-Garcia, MD, PhD

Charles Wira, PhD

Executive Director

Karen Gottlieb, CMP

SPONSORS

D I A M O N D

JACK & DOROTHY BYRNE FOUNDATION

P L A T I N U M



G O L D



B R O N Z E



AGENDA AT-A-GLANCE

	SAT MAY 20	SUN MAY 21	MON MAY 23	TUES MAY 24	WED MAY 25
7:00		CC BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST
7:30					
8:00		CLINICAL COURSE II: Laboratory Sciences & RF	PL2: KEYNOTE LECTURE Cutting Edge Tech - Norwitz	PL3: KEYNOTE LECTURE Leadership - Murtha	PL4: GUSDON AWARD SESSION
8:30			AJRI Award Lecture: Meinhardt	Herr Lecture: Herbst-Kralovetz	
9:00					
9:30			COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
10:00		COFFEE BREAK	S01-Changes in Adaptive & Innate Immunity Throughout Lifespan	S07-Immune Milieu During Decidualization and Early Pregnancy	S13-Microbiomes of Pregnancy
10:30		CLINICAL COURSE III: Recurrent Pregnancy Loss			S02 - Effect of Maternal Immune Activation on Fetal Development
11:00					
11:30					
12:00		CC LUNCH: Guidelines	LUNCH SESSION: Indigenous Populations	LUNCH SESSION: ASRI Business Meeting	LUNCH SESSION: Reproductive Rights
1:30		CLINICAL COURSE IV: Infection and Pregnancy	S03- Immunology of Gynecological Cancers	S09-Impact of Emerging Viral Infections on Pregnancy	S15-Reproductive Immune- Endocrine Cross-Talk
2:00			S04 - Feto-Maternal Interface Immunology & Pathobiology	S10-Empowering Women Leaders in Science	S16-Inflammation and Metabolic Process in the Urogenital Tract
2:30					
3:00			COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
3:30		ASRI Executive Council Meeting			
3:45			S05-Novel Multi-Omics Approaches to Study Infection & Reproduction	S11-Immune Privilege vs Immunity in the Testes: Maintaining a Balance	S17-Environmental Stressors and Impact on Pregnancy
4:00	CLINICAL COURSE I: Infertility & Implantation Failures	Welcome Remarks	S06-Immune Memory and Tolerance in Pregnancy	S12-SARS CoV-2 and Pregnancy	S18-Animal Models of Reproductive Health & Disease
4:30					
5:00			PL1: KEYNOTE LECTURE Maternal Health Research - Bianchi	Poster Session I & Competition Judging	Poster Session II
5:30					
5:45					
6:00	Clinical Fellowship Reunion				
6:30					
7:00		Welcome Reception			
7:30			Trainee/Student Social Event: Santa Fe Scavenger Hunt	AJRI Editorial Board Meeting & Dinner (invitation only)	
8:00					A "Night of Enchantment" Awards Ceremony & Dinner at the New Mexico History Museum
8:30					
9:00					
9:30					
10:00					
10:30					

SATURDAY, MAY 20

3:00 - 6:00 REGISTRATION

Lumpkins Mezzanine

4:00 - 6:00 CLINICAL COURSE IN REPRODUCTIVE IMMUNOLOGY (\$)

Lumpkins North

Welcome Remarks / Course Introduction - *Joanne Kwak-Kim & Gil Mor*

SESSION I: Infertility and Implantation Failures

- 4:00 Rafat Abbasi, Columbia Fertility - Autoimmune Oophoritis and Reproductive Failures
4:30 Yasuyuki Negishi, Nippon Medical School - Immune Inflammatory Responses in Infertility
5:00 Koji Nakagawa, Sugiyama Clinic Shinjuku - Immunotherapy with Tacrolimus for RIF and RPL Women with Immunological Rejection
5:30 Richard Pilsner, Wayne State University - Sperm Aging and Immunity

6:00 - 7:00 CLINICAL FELLOWSHIP REUNION

Lumpkins Mezzanine

Informal networking/light reception

SUNDAY, MAY 21

12:00 - 6:00 REGISTRATION

Lumpkins Mezzanine

All Day CLINICAL COURSE IN REPRODUCTIVE IMMUNOLOGY (\$)

Lumpkins North

Chairs: Joanne Kwak-Kim & Gil Mor

SESSION II: Laboratory Sciences and Reproductive Failure

- 8:00 Kenneth Beaman, Rosalind Franklin University - Laboratory Evaluation for Women with RF
8:30 Evan Ntrivalas, Memorial Sloan Kettering - Flow Cytometric Analysis of Peripheral Immune Cells in Women with Reproductive Failure
9:00 Raphael Stricker, Alan E. Beer Medical Center for Reproductive Immunology - Autoimmune Responses in Women with Reproductive Failure
9:30 Amy Thees, Rosalind Franklin University - Targeted Gene Expression Profiling for Endometrial Dysregulation in Patients with Reproductive Failure

10:00 - 10:15 COFFEE BREAK

Lumpkins Mezzanine

SESSION III: Recurrent Pregnancy Losses, Rheumatic Disease and Pregnancy

- 10:15 Joanne Kwak-Kim, Rosalind Franklin University - Update in Recurrent Pregnancy Losses: Thyroid Autoimmunity
10:45 Marcelo Cavalcante, Universidade de Fortaleza, Brasil - Current Evidence on Immunotherapies; Immunization with Lymphocytes, Lipid Emulsions, and Recombinant G-CSF
11:15 Andrew Wong, UCLA - Rheumatic Disease and Pregnancy I
11:45 Kristen Demoruelle, Colorado University, Anschutz - Rheumatic Disease and Pregnancy II

SUNDAY, MAY 21

- 12:15 - 1:15 **CLINICAL COURSE LUNCH:** La Terraza Rooftop
How to Set Up a Guideline for Immunological Assessment and Management in Patients with Pregnancy Loss and Implantation Failures?
- 12:15 Giovanni Jubiz, Center for Reproductive Immunology & Infertility - Available Immunologic Testing for Implantation Failure and Recurrent Pregnancy Loss
- 12:45 Ricardo Barini, UNICAMP - Available Therapies for Implantation Failure and Recurrent Pregnancy Loss
- 1:15 - 3:15 **SESSION IV: Infection and Pregnancy** Lumpkins North
- 1:15 Gil Mor, Wayne State University - How Pregnancy Deals with Viral Infections
- 1:45 Vikki Abrahams, Yale University - Role of Antiphospholipid Antibodies in Adverse Pregnancy Outcomes
- 2:15 Babbette LaMarca, UMC - CD4+ T Cells from Preeclamptic Patients Cause Hypertension, Autoantibodies and Cognitive Dysfunction in a Pregnant Rat Model
- 2:45 Elizabeth Enninga, Mayo Clinic - The Role of Occult Infection in the Pathogenesis of CHI/VUE
-
- 3:15 - 4:45 **Executive Council Meeting** (ASRI Council & Committee Chairs only) Ballen Ballroom
- 5:00 - 5:15 **Welcome Remarks & Introduction** Lumpkins Ballroom

5:15 - 6:15 **PL1: KEYNOTE LECTURE** Lumpkins Ballroom



The Primary Significance of Secondary Findings in Maternal Health Research

Keynote Speaker:

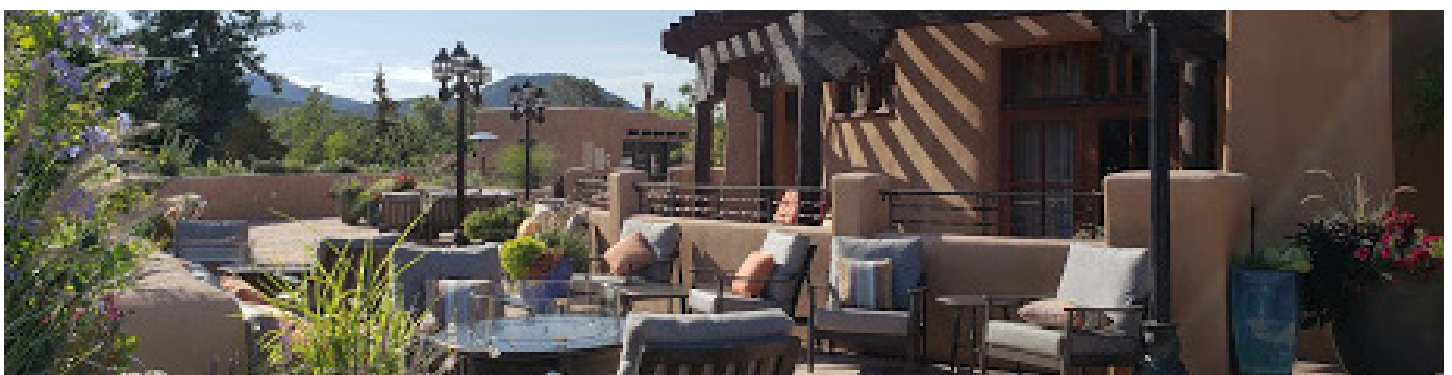
Diana W. Bianchi, MD

Director, Eunice Kennedy Shriver

National Institute of Child Health and Human Development

6:30 - 8:30 **SUNSET WELCOME RECEPTION** La Terraza Rooftop

Cocktails & Hors D'oeuvres with local artists



MONDAY, MAY 22

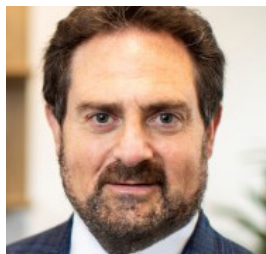
7:00 - 8:00 CONTINENTAL BREAKFAST

Lumpkins Mezzanine

7:00 - 4:00 REGISTRATION

8:00 - 9:00 PL2: CUTTING EDGE TECHNOLOGIES

Lumpkins Ballroom



Preventing Adverse Pregnancy Outcome Before Conception: The Soil is More Important than the Seed

Keynote Speaker:

Errol Norwitz, MD, PhD

Tufts University

9:00 - 9:30 AJRI AWARD LECTURE

Lumpkins Ballroom

Chair: Surendra Sharma

The Landscape of Macrophages in the Epididymis

Andreas Meinhardt, 2022 AJRI Award recipient

9:30 - 10:00 COFFEE BREAK

Lumpkins Mezzanine

10:00 - 12:00 S1: CHANGES IN ADAPTIVE AND INNATE IMMUNITY THROUGHOUT THE LIFESPAN OF WOMEN

Lumpkins North

Chairs: Marta Rodriguez-Garcia & Chuck Wira

- 10:00 Duygu Ucar, The Jackson Laboratory - Sexual-Dimorphism in Human Immune System Aging and Vaccine Responses
- 10:30 Caroline Mitchell, Harvard University - Cervicovaginal Microbiota Across the Lifespan
- 11:00 Chuck Wira, Geisel School of Medicine at Dartmouth - Impact of Aging Beyond Menopause on Mucosal Immunity in the Human Female Reproductive Tract
- 11:30 Arnold Salazar, Baylor College of Medicine - Metabolic and Cellular Mechanisms Driving Age-Dependent Inflammaging and Senescence in the Female Urinary Tract
- 11:45 Zheng Shen, Geisel School of Medicine at Dartmouth - Impact of Aging on the Frequency, Phenotype, and Function of CD4+ T Cells in the Human Female Reproductive Tract

10:00 - 12:00 S2: THE EFFECT OF MATERNAL IMMUNE ACTIVATION ON FETAL IMMUNE DEVELOPMENT

Lumpkins South

Chairs: Jiahui Ding & Jun Lei

- 10:00 Anna Beaudin, University of Utah - MIA Alters the Trajectory of Postnatal Immunity by Reprogramming Fetal Hematopoiesis
- 10:30 Leena Mithal, Northwestern University - Impact of Sars-Cov-2 Infection in Pregnancy on Fetal Immune State
- 11:00 Jun Huh, Harvard University - Maternal Microbiota Underlies Both Neurodevelopment and Immune-Primed Phenotypes in Offspring
- 11:30 Tao Zhang, Chinese University of Hong Kong - Role of Macrophage on Oxidative Stress and Angiogenesis Toward the Early Growth and Development in Endometriosis

MONDAY, MAY 22

11:45 Enitome Bafor, National Cancer institute - A Mouse Model of Corpus Luteal Defect Mediated by Cd8+T Cells

12:00 - 1:30 **LUNCH SESSION** *(included for attendees)*

La Terraza Rooftop

Understanding Indigenous approaches to sexual and reproductive health and improving health outcomes



Chairs: Charu Kauschic & Chuck Wira

- 12:15 Randall Jackson, McMaster University - Inequitable Outcomes of Health in Indigenous Communities
- 12:40 Carrie Martin, Communities, Alliances and Networks - Indigenous-Led Global Collaboration: Responses to SRHR
- 1:05 Corrine Sanchez, Tewa Women United / University of New Mexico - Indigenous Women's Reproductive Health and Wellness: A Perspective on the Birth Work Community of Northern New Mexico

1:30 - 3:30 **S3: IMMUNOLOGY OF GYNECOLOGICAL CANCERS**

Lumpkins North

Chairs: Vijay Kumar & Atsushi Fukui

- 1:30 Amir Jazaeri, University of Texas - Making Immunotherapy Work for Ovarian Cancer
- 2:00 Animesh Barua, Rush University - Ovarian Autoimmunity and Endometriosis as Risk Factors for Ovarian Malignancy
- 2:30 Mickey Patel, Geisel School of Medicine at Dartmouth - Endometrial Tumors Suppress CD8+T Cell Function
- 3:00 Christina Farr, Case Western Reserve University - Investigating Mucosal Neutrophils in HPV-Associated Cervical Neoplasia in African American Women
- 3:15 Sarah Nelson, Southern Illinois University of Medicine - Identification of Systemic inflammation and Immune Phenotypes in Endometrial Cancer

1:30 - 3:30 **S4: FETO-MATERNAL INTERFACE IMMUNOLOGY AND PATHOBIOLOGY**

Lumpkins South

Chairs: Ramkumar Menon & Joanne Kwak-Kim

- 1:30 Veronica Zaga Clavellina, INPerIER - The Key Immunomodulatory Role of Decidual Prolactin During Human Labor
- 2:00 Akitoshi Nakashima, Toyama University - the Autophagy inhibitor, Bafilomycin A1, Induces Preeclampsia-Like Phenotypes In Vitro
- 2:30 Ryan C.V. Lintao, University of the Philippines Manila and UTMB - The "Great Wall" of Chorion Trophoblasts: Exploring its Immunomodulatory Role at the Feto-Maternal Interface
- 3:00 Xue Jiao, Center for Reproductive Medicine, Shandong University - Regional Immunological Properties in Two Distinct Subsets of Ovarian Resident Macrophages
- 3:15 Giuseppe Maiocco, Southern Illinois University of Medicine - Functional Conversion of Human Peripheral Blood NK Cells to Decidua-Like NK Cells Requires Cooperative Effects of Hypoxia and TGF β

3:30 - 3:45 COFFEE BREAK

Lumpkins Mezzanine

MONDAY, MAY 22

3:45 - 5:45 **S5: NOVEL MULTI-OMICS APPROACHES TO STUDY INFECTION AND REPRODUCTION**

Chairs: Marta Rodriguez-Garcia & Biban Gill

Lumpkins North

- 3:45 Nadia Roan, UCSF - Multiomics Interrogation of Viral – T Cell Interactions In The Female Reproductive Tract
- 4:15 Matthew Pugh, University of Birmingham - The Immunopathology Of COVID-19 Placentitis: A Multi-Omic Spatial Approach
- 4:45 Liza Konnikova, Yale University - Multiomic Approaches in Studying the Maternal-Fetal Interface
- 5:15 Olivia Palmer, Geisel School of Medicine at Dartmouth - 17beta-Estradiol Induces Temporal Transcriptomic Variation In M1 and M2 Macrophages
- 5:30 Vilde Kaldhusdal, Karolinska Institutet - Spatial Transcriptomics Reveals Distinct Molecular Signatures Across the Stratified Ectocervical Epithelium Associated with Use of Depot Medroxyprogesterone Acetate

3:45 - 5:45 **S6: IMMUNE MEMORY AND TOLERANCE IN PREGNANCY**

Chairs: Sylvie Girard & Florian Hladik

Lumpkins South

- 3:45 Lucia Vojtech, University of Washington - The Role of Semen in Induction of Paternal-Specific Tolerance During Pregnancy
- 4:15 Charles Graham, Queen's University - Innate Immune Memory and Maternal-Fetal Health Outcomes
- 4:45 Tamara Tilburgs, Cincinnati Children's Hospital - Mechanisms of Maternal-Fetal Tolerance and Placental Immunity
- 5:15 Ragav Siddharth, Tufts University - Untangling Dendritic Cell Heterogeneity in the Female Reproductive Tract and Their Role in HIV Pathogenesis
- 5:30 Umida Ganieva, Rosalind Franklin University - Regenerative Power of IL-22: A Potential Treatment for Secondary Infertility

5:45- 6:45 **POSTER SESSION I** (odd #s) & Competition Final Judging NM / Santa Fe Rooms

6:45 - 9:00 **Student / Trainee Social: Santa Fe Scavenger Hunt** New Mexico Foyer

*Join us after the poster session for this fun and interactive "Goose Chase" event!
Choose a team, complete challenges around the historic area and get to know each other better.
Gather at Cowgirls Saloon afterwards for casual dinner and drinks (on your own).*



TUESDAY, MAY 23

7:00 - 8:00

CONTINENTAL BREAKFAST

Lumpkins Mezzanine

7:00 - 4:00

REGISTRATION

8:00 - 9:00

PL3: PRESIDENT'S SESSION

Lumpkins Ballroom



Leadership: Navigating the Journey

Presidential Speaker:

Amy Murtha, MD, PhD

Rutgers University

9:00 - 9:30

HERR AWARD LECTURE

Lumpkins Ballroom

Chair: TBD

Leveraging multi-omics to elucidate cervicovaginal microbiota-host interactions and women's health conditions

Melissa Herbst-Kralovetz, University of Arizona, 2022 Herr Award recipient

9:30 - 10:00

COFFEE BREAK

Lumpkins Mezzanine

10:00 - 12:00

S7: IMMUNE MILIEU DURING DECIDUALIZATION AND EARLY PREGNANCY

Chairs: Kunle Odunsi & Charles Wira

Lumpkins North

- 10:00 Gabrielle Rizzuto, Memorial Sloan Kettering - A New Mechanism of Fetomaternal Tolerance
- 10:30 Svetlana Dambaeva, Rosalind Franklin University - Homeostasis, Inflammatory, Immunoregulatory and Decidualization Factors Important in Evaluation of Endometrial Tissue
- 11:00 Joanne Kwak-Kim, Rosalind Franklin University - Dysregulated T Cell Immunity in Women with Reproductive Failures
- 11:30 Iryna Sudoma, Clinic of Reproductive Medicine NADIYA, Kyiv, Ukraine - Immune Endometrial Phenotypes in Assisted Reproduction Programs
- 11:45 José Martin Murrieta Coxca, University Hospital Jena - Microglia Cells as Targets of Preeclampsia Extracellular Vesicles: An In Vitro Approach

10:00 - 12:00

S8: SEX HORMONES AND IMMUNITY - SIGNIFICANCE FOR POPULATIONS-AT-RISK

Chairs: Florian Hladik & Mimi Ghosh

Lumpkins South

- 10:00 Florian Hladik, University of Washington - Homeostatic Regulation of Vaginal Immunity by Sex Hormones and Across Life Events
- 10:30 Mimi Ghosh, George Washington University - Systemic and Mucosal Immune Dysregulation in Transgender Individuals on Gender Affirming Hormone Therapy
- 11:00 Craig Hendrix, Johns Hopkins - Exogenous Sex Hormone Modulation (or NOT) of HIV Pre-Exposure Prophylaxis
- 11:30 Alexandra Werner, Tufts University - Innate Lymphoid Cells Reside in the Human Female Reproductive Tract and Display Antiviral Properties
- 11:45 Firoz Mian, McMaster University - NET-EN, Unlike DMPA, Enhances Mucin and T Cell Functions in the Vaginal Tract, Improves Protection from HSV-2 in Mouse Models

TUESDAY, MAY 23

12:00 - 1:30 **LUNCH SESSION** (included for attendees) La Terraza Rooftop

ASRI BUSINESS MEETING

Chair: Irina Burd

- 1:30 - 3:30 **S9: IMPACT OF EMERGING VIRAL INFECTIONS ON PREGNANCY AND THE NEONATE**
Chairs: Kristina Adams Waldorf & Indira Mysorekar Lumpkins North
- 1:30 David Schwartz, Perinatal Pathology Consulting - Update on Monkeypox in Pregnancy: Intrauterine Transmission, Maternal, Placental and Fetal Infection, and What We Can Learn From Smallpox
- 2:00 Amy Hartman, University of Pittsburgh - Rift Valley Fever: Impact on Pregnancy and Unanswered Questions
- 2:30 Rafael Tomoya Michita, Baylor College of Medicine - Tunneling Nanotubes: a New Route of ZIKV Infection at the Maternal-Fetal Interface
- 3:00 Alison Eastman, Vanderbilt University - Infected Decidual Stromal Cells Prime Immune Responses of Adjacent Uninfected Cell Layers of the Gestational Membranes
- 3:15 Kerrie Foyle, University of Adelaide - Uterine $\gamma\delta$ T Cells are a Major Element of the Female Immune Response to Seminal Fluid in Mice

- 1:30 - 3:30 **S10: EMPOWERING WOMEN LEADERS IN SCIENCE**
Chairs: Elizabeth Enninga & Ramkumar Menon Lumpkins South
- 1:30 Melissa Herbst-Kralovetz, University of Arizona - Finding Belonging in Science
- 1:50 Elizabeth Connick, University of Arizona - Surviving and Thriving in Academic Medicine
- 2:10 Sylvie Girard, Mayo Clinic - Developing Your Own Program
- 2:30 Kristen Porter, National Institutes of Health
- 3:00 Open panel discussion

3:30 - 3:45 **COFFEE BREAK** Lumpkins Mezzanine

- 3:45 - 5:45 **S11: IMMUNE PRIVILEGE VS. IMMUNITY IN THE TESTES; MAINTAINING A BALANCE**
Chairs: Ken Beagley & Andreas Meinhardt Lumpkins North
- 3:45 Yong-Gang Duan, Hong Kong University - High-level Glucose Intake Exacerbated Murine Autoimmune Epididymal-Orchitis via Promoting Th17 Differentiation and ROS Production
- 4:15 Sudhandshu Bhushan, Justus-Liebig University - The Landscape of Macrophages in the Testes
- 4:45 Emily Bryan, Queensland University - Development of Mouse Models for Studying Sexually Transmitted Infections in Males
- 5:15 Yuekun Chen, Hyogo Medical University - Inhibitory Effects of a Spontaneously-Occurring Anti-Sperm Antibody on Reproductive Functions in Mice
- 5:30 Qunxiong Zeng, University of Hong Kong - Inflammatory Bowel Disease Induces Orchitis and Epididymitis In Mouse Model

TUESDAY, MAY 23

3:45 - 5:45 **S12: SARS-CoV-2 AND PREGNANCY**

Chairs: Nazeeh Hanna & Irina Burd

Lumpkins South

- 3:45 Rebecca Simmons, Univ. Pennsylvania - Sars-CoV2: Is the Placenta a Safe Place?
- 4:15 Irina Burd, Univ. Maryland - Modeling SARS-CoV2: Effects on Placenta and Offspring
- 4:45 Nazeeh Hanna, NYU Langone - Perinatal SARS-CoV-2 Infection and Vaccination: New Insights
- 5:15 Deepak Kumar, Baylor College of Medicine - SARS-CoV-2 Infection Disrupts Trophoblast Function and Placental Syncytial Barrier Integrity Via Its Accessory Protein, ORF3a
- 5:30 Landon vom Steeg, Dartmouth College - The Susceptibility of Endometrial CD4+ T Cells to Human Immunodeficiency Virus (HIV) Infection Increases with Age

5:45- 6:45 **POSTER SESSION II** (even #s) & Competition Final Judging NM / Santa Fe Rooms

All Poster Finalists should be present for final judging for the Poster competition

7:00 - 9:00 AJRI Editorial Board Meeting (by invitation only)

**Are you an ASRI member?
If not, we invite you to join today!**

**Stop by the ASRI Registration Desk
or visit www.theasri.org to join today!**



WEDNESDAY, MAY 24

7:00 - 8:00 CONTINENTAL BREAKFAST

Lumpkins Mezzanine

7:00 - 4:00 REGISTRATION

8:00 - 9:30 PL4: GUSDON AWARD SESSION

Lumpkins Ballroom

Chairs: Surendra Sharma & Gil Mor

- G1 Elsa Bernier, University of Montreal - Pandemic stress induces systemic immune changes and placental inflammation independently of SARS-CoV-2 infection in pregnancies
- G2 Steffany Conyers, Harvard University - Transplacental Transfer of SARS-CoV-2 Variant Antibodies Following COVID-19 Vaccination During Pregnancy
- G3 Belen Gimeno Molin, Imperial College London - The complement system in cervical shortening and spontaneous preterm birth
- G4 Jun Lei, University of Maryland - IL-1 Receptor as a Therapeutic Target Alleviates Placental Dysfunction & Perinatal Injury in a Mouse Model of Congenital Cytomegalovirus Infection
- G5 Laura Moreno de Lara, Tufts University - Aging Impairs HIV Responses in Neutrophils from Blood and the Female Genital Tract
- G6 Mickey Patel, Geisel School of Medicine at Dartmouth - Aging alters the innate immune responses of endometrial fibroblasts from the human female reproductive tract

9:30 - 10:00 COFFEE BREAK

Lumpkins Mezzanine

10:00 - 12:00 S13: MICROBIOMES OF PREGNANCY

Chairs: Anna Powell & Melissa Herbst-Kralovetz

Lumpkins North

- 10:00 David MacIntyre, Imperial College London - Spatial characterization of reproductive tract microbiota-host responses in pregnancy and preterm birth
- 10:30 Melody Zeng, Cornell University - Gut microbiome-mediated immune regulation at the maternal-fetal interface
- 11:00 Elizabeth Corwin, Columbia University - The Social and Biological Determinants of the Vaginal Microbiome and the Risk of Preterm Birth
- 11:30 Sona Jasani, Yale School of Medicine - Using cross-species transcriptomics to uncover molecular pathways associated with retained placenta
- 11:45 Russell Urie, University of Michigan - Subcutaneous scaffold implants recapitulate the placental microenvironment for prenatal immunosurveillance

10:00 - 12:00 S14: VACCINATION DURING PREGNANCY

Chairs: Deborah Anderson & Judy Zhang

Lumpkins South

- 10:00 Maged Constantine, Ohio State - Maternal and neonatal outcomes of Covid infections
- 10:30 Michael Citron, Merck - Modeling vaccination during pregnancy using non-human primates
- 11:00 Kang Chen, Wayne State University - Transplacental immunoglobulin D protects infants from food allergy
- 11:30 George Ndukwe, ARGC, London - The use of immunomodulation therapy in women with recurrent implantation failure undergoing assisted conception: a multicentre cohort study
- 11:45 Zheping Huang, Women & Infants Hospital - Exploiting sweet relief for preeclampsia by

WEDNESDAY, MAY 24

targeting autophagy-lysosomal machinery and proteinopathy Increased levels of plasma TNF α in transgender women on long-term gender-affirming hormone therapy

12:00 - 1:30 **LUNCH SESSION** (included for attendees) La Terraza Rooftop

REPRODUCTIVE RIGHTS

Chairs: Indira Mysorekar & Irina Burd

Marianna Alperin, UCSD - Pelvic Floor Muscle Regeneration Following Simulated Birth Injury in a Validated Preclinical Model
Followed by Open Discussion (Town Hall forum)

1:30 - 3:30 **S15: REPRODUCTIVE IMMUNE-ENDOCRINE CROSS-TALK: IMPLICATIONS FOR WOMEN'S HEALTH** Lumpkins North

Special Anniversary session of the Indian Society for Reproductive Immunology

Chairs: Taruna Madan & Surendra Sharma

Taruna Madan, ICMR-NIRRH - Synergistic Prediction of Early Onset Preeclampsia by Immune and Endocrine Biomarkers: A Window of Opportunity to Prevent Feto-Maternal Mortality and Morbidity

Shailaja Sopory, Translational Health Science & Technology Institute - Longitudinal Expression of Serum Immune Markers Across Pregnancy and Fetal Growth Restriction in a North Indian Pregnancy Cohort

Malini Laloraya, Rajiv Gandhi Center for Biotechnology - PCOS: Where Endocrinology Meets Immunology

Mohan Raut, Dr. Raut's Centre for Reproductive Immunology - Immunomodulation: Missing link in Recurrent Implantation Failures

Rupesh Srivastava, All India Institute of Medical Sciences New Delhi - Exploiting the Immunoporotic Potential of "Bregs" Under Inflammatory Bone Loss in Post-Menopausal Osteoporosis: Bench to Bedside

1:30 - 3:30 **S16: INFLAMMATION AND METABOLIC PROCESS IN THE UROGENITAL TRACT AND THEIR ROLE IN STIs** Lumpkins South

Chairs: Amy Gillgrass & Indira Mysorekar

1:30 Keith Fowke, University of Manitoba - Reducing Inflammation in the Female Genital Tract as a Novel HIV Prevention Approach

2:00 Charu Kaushic, McMaster University - Host-Microbiome Interactions, Inflammation and their Effect on HIV Susceptibility in Female Genital Tract

2:30 Marta Rodriguez-Garcia, Tufts University - The Role of Neutrophils in Protection Against HIV Infection in the Female Reproductive Tract

3:00 Janja Kovacic, George Washington University - Increased Levels of Plasma TNF α in Transgender Women on Long-Term Gender-Affirming Hormone Therapy

3:15 Madeleine Lepard, McMaster University - A Next Generation Humanized Mouse Model of HIV, TB and HIV/TB Co-Infection

WEDNESDAY, MAY 24

3:30 - 3:45 COFFEE BREAK

Lumpkins Mezzanine

3:45 - 5:45 **S17: ENVIRONMENTAL STRESSORS AND IMPACT ON PREGNANCY**

Chairs: Sylvie Girard & David Olson

Lumpkins North

- 3:45 Gerlinda Metz, University of Leth - Psychosocial Stress as a Risk Factor in Pregnancy
- 4:15 Michal Elovitz, Icahn School of Medicine at Mount Sinai - Biology Does Not Occur in a Vacuum: Considerations for the Microbiota and Pregnancy Health
- 4:45 Felipe Vadillo-Ortega, University of Michigan - Inflammation, Nutrition and City Environment: Mexico City Perinatal Cohort
- 5:15 Tiffany Habelrih, University of Montreal - Efficacy of Rytvela, an Allosteric Anti-IL-1R Modulator, to Prevent Preterm Birth and Neonatal Tissue Injury After Onset of Preterm Labor
- 5:30 Anthony Maxwell, Wayne State University - Impact of Benzene Exposure on Interferon Stimulated Genes Expression and Function

3:45 - 5:45 **S18: ANIMAL MODELS OF REPRODUCTIVE HEALTH AND DISEASE**

Chairs: Surendra Sharma & Kristina Adams Waldorf

Lumpkins South

- 3:45 Jennifer Tisoncik-Go, University of Washington - Zika Virus Exposure in Utero is Associated with Altered Myelination During Fetal Brain Development in a Pigtail Macaque Pregnancy Model
- 4:15 Orlando Cervantes, University of Washington - Modeling Enhanced Lung Disease in Pregnancy from Influenza A Virus Infection in an NHP Model
- 4:45 S. Ananth Karumanchi, Cedars Sinai Medical Center - Baboon Model of siRNA Treatment of Preeclampsia
- 5:15 Sudeshna Tripathy, Oregon National Primate Research Center - Choriodecidual Ureaplasma Infection Results in Fetal Membrane Inflammatory Responses In Vivo in a Non-Human Primate Model
- 5:30 Meredith Kelleher, Oregon National Primate Research Center- Fetal Brain Inflammation Induced by Choriodecidual Ureaplasma parvum Infection without Preterm Labor in a Rhesus Macaque Model



6:30 - 10:30 **AWARDS CEREMONY DINNER (\$)**

La Fonda Lobby

"A Night of Enchantment" at the New Mexico History Museum

Meet in the La Fonda lobby at 6:30 pm for a special surprise before walking to the museum

6:45 Cocktails / Exhibits open

7:15 Buffet Dinner & Entertainment followed by Award Presentations

8:15 Closing Remarks / Museum Exhibits / DJ & Dancing

2023 ASRI AWARDS

The following ASRI Awards will be presented at the Gala Dinner & Awards Celebration:

The **American Journal of Reproductive Immunology Award** will be presented to a senior investigator who has made outstanding clinical or basic research contributions in the area of reproductive immunology.

The **Dr. John Gusdon Memorial New Investigator Award** will be presented to a new investigator with trainee status (graduate student, postdoctoral scientist, or resident) who has made a significant contribution by presenting an outstanding research paper during the annual meeting. This award is given annual in memory of Dr. John Gusdon, a founding member of ASRI and advocate of student participation in ASRI meetings.

The **J. Christian Herr Award** is given annually to a member of ASRI, International Society for Immunology of Reproduction, or European Society for Reproductive Immunology, who has made outstanding achievements in basic or applied research in reproductive immunology, particularly for investigators involved in technology transfer.

The **Carolyn B. Coulam Memorial Award** is given annually to an outstanding female physician-scientist in the field of reproductive immunology who has demonstrated commitments, by publication and/or practice, to scholarly advances in the field of reproductive immunology.

The **ASRI Distinguished Service Award** is given periodically and not more than annually, to a member of the ASRI who has provided distinguished service to advance the goals and mission of the society.

The **Poster Competition Awards** will be presented to the top posters based on the final scores received during the poster judging session on Monday.

2023 TRAVEL AWARDS

ASRI has awarded a total of 18 Travel Grants to support trainee travel to the ASRI Annual Meeting.

GUSDON TRAVEL AWARDEES

ELSA BERNIER
STEFFANY CONYERS
BELEN GIMENO-MOLINA
JUN LEI
LAURA MORENO DE LARA
MICKEY PATEL

TRAVEL GRANT AWARDEES:

ENITOME BAFOR
YUEKUN CHEN
AMADOR GOODRIDGE
VILDE KALDHUSDAL
MADELEINE LEPARD
MARIA SOL MARTINEZ
OLIVIA PALMER
LIPIKA PATRA
ARNOLD SALAZAR
SUDESHNA TRIPATHY
RUSSELL URIE
TAO ZHANG



ASRI 2023 SPEAKERS & CHAIRS

FACULTY SPEAKERS & CHAIRS

Rafat Abbasi - Columbia Fertility
Vikki Abrahams - Yale University
Kristina Adams-Waldorf - University of Washington
Marianna Alperin - University of California, San Diego
Anderson, Deborah - Boston Medical Center
Ricardo Barini - UNICAMP
Animesh Barua - Rush University
Ken Beagley - Queensland University of Technology
Ken Beaman - Rosalind Franklin University
Anna Beaudin - University of Utah
Sudhanshu Bhushan - Justus-Liebig University
Diana Bianchi - NICHD/NIH
Emily Bryan - Queensland University of Technology
Irina Burd - University of Maryland
Marcelo Cavalcante - Universidade de Fortaleza, Brasil
Orlando Cervantes - University of Washington
Kang Chen - Wayne State University
Michael Citron - Merck
Elizabeth Connick - University of Arizona
Elizabeth Corwin - Columbia University
Maged Costantine - The Ohio State University
Svetlana Dambueva - Rosalind Franklin University
Kristen Demoruelle - Colorado University Anschutz
Jiahui Ding - Wayne State University
Yong-Gang Duan - University of Hong Kong
Michal Elovitz - MSSM/University of Pennsylvania
Elizabeth Enninga - Mayo Clinic
Emilio Fernandez - Clinica las Condes Santiago, Chile
Keith Fowke - University of Manitoba
Atsushi Fukui - Hyogo Medical University
Mimi Ghosh - George Washington University
Bibanjeet Gill - McMaster University
Amy Gillgrass - McMaster University
Sylvie Girard - Mayo Clinic
Jennifer Go - University of Washington
Charles Graham - Queen's University
Nazeeh Hanna - NYU Langone
Amy Lynn Hartman - University of Pittsburgh
Craig Hendrix - Johns Hopkins
Melissa Herbst-Kralovetz - University of Arizona
Florian Hladik - University of Washington
Jun Huh - Harvard University
Randall Jackson - McMaster University
Amir Jazaeri - University of Texas
Giovanni Jubiz - Center for Reproductive Immunology and Infertility
S. Ananth Karumanchi - Cedars-Sinai Medical Center
Charu Kaushic - McMaster University
Liza Konnikova - Yale University
Vijay Kumar - Louisiana State University HSC
Joanne Kwak-Kim - Rosalind Franklin University
Malini Laloraya - Rajiv Gandhi Centre for Biotechnology
Babbette LaMarca - University of Mississippi Med. Ctr.
Jun Lei - University of Maryland
Ryan C.V. Lintao - University of Philippines & UTMB

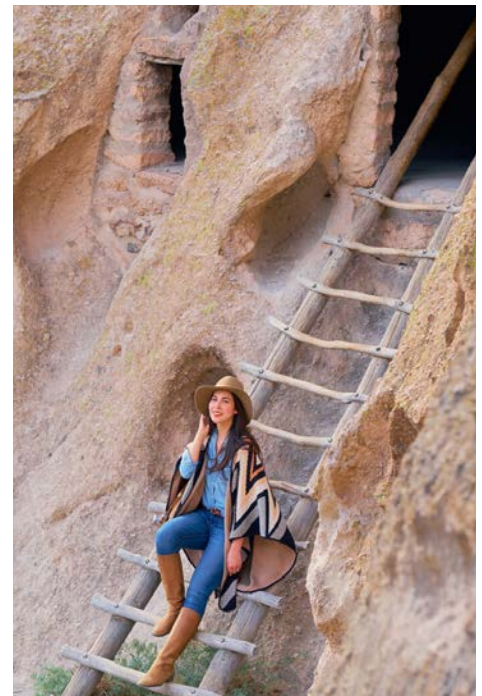
David MacIntyre - Imperial College London
Taruna Madan - ICMR-National Institute for Research in Reproductive and Child Health
Carrie Martin - Communities, Alliances and Networks
Andreas Meinhardt - University of Geissen, Germany
Ramkumar Menon - University of Texas Medical Branch
Gerlinde Metz - University of Leth
Rafael Tomoya Michita - Baylor College of Medicine
Caroline Mitchell - Harvard University
Leena Mithal - Northwestern University
Gil Mor - Wayne State University
Amy Murtha - Rutgers University
Indira Mysorekar - Baylor College of Medicine
Koji Nakagawa - Sugiyama Clinic Shinjuku
Akitoshi Nakashima - Toyama University
Yasuyuki Negishi - Nippon Medical School
Errol Norwitz - Tufts University
Evan Ntrivalas - Memorial Sloan Kettering
David Olson - University of Alberta
Mickey Patel - Dartmouth College
Richard Pilsner - Wayne State University
Kristen Porter, National Institutes of Health
Anna Powell - Johns Hopkins University
Matthew Pugh - University of Birmingham, UK
Mohan Raut - Dr. Raut's Ctr. for Repro. Immunology
Gabrielle Rizzuto - Memorial Sloan Kettering
Nadia Roan - University of California, San Francisco
Marta Rodriguez-Garcia - Tufts University
Luna Samanta - Ravenshaw University
Corrine Sanchez - Tewa Women United / Univ. of NM
David Schwartz - Perinatal Pathology Consulting
Surendra Sharma - Women & Infants Hospital RI
Rebecca Simmons - University of Pennsylvania
Shailaja Sopory - Translational Health Science and Technology Institute
Rupesh Srivastava - All India Institute of Med. Sciences
Raphael Stricker - Alan E. Beer Medical Center
Amy Thees - Rosalind Franklin University
Tamara Tilburgs - Cincinnati Children's Hospital
Duygu Ucar - The Jackson Laboratory
Felipe Vadillo-Ortega - UNAM, Mexico
Lucia Vojtech - University of Washington
Charles Wira - Dartmouth College
Andrew Wong - University of California, Los Angeles
Veronica Zaga Clavellina - INPerLER
Melody Zeng - Cornell University
Judy Zhang - Chinese University of Hong Kong

GUSDON FINALISTS

Elsa Bernier - University of Montreal (TG)
Steffany Conyers - Harvard University (TG)
Belen Gimeno Molin - Imperial College, London (TG)
Jun Lei - University of Maryland (TG)
Laura Moreno de Lara - Tufts University (TG)
Mickey Patel - Dartmouth College (TG)

ORAL PRESENTERS

Enitome Bafor - National Cancer Institute (TG)
Yuekun Chen - Hyogo Medical University Japan (TG)
Alison Eastman - Vanderbilt University
Christina Farr - Case Western Reserve University
Kerrie Foyle - University of Adelaide
Umida Ganieva - Rosalind Franklin University
Tiffany Habelrih - University of Montreal
Zheping Huang - Women & Infants Hospital RI
Sona Jasani - Yale School of Medicine
Xue Jiao - Shandong University China
Vilde Kaldhusdal - Karolinska Institute (TG)
Meredith Kelleher - Oregon National Primate Center
Janja Kovacic - George Washington University
Deepak Kumar - Baylor College of Medicine
Madeleine Lepard - McMaster University (TG)
Giuseppe Maiocco - Southern Illinois University
Anthony Maxwell - Wayne State University
Firoz Mian - McMaster University
José Martin Murrieta Coxca - University Hospital Jena
George Ndukwe - ARGC, London
Sarah Nelson - Southern Illinois University
Olivia Palmer - Dartmouth College (TG)
Arnold Salazar - Baylor College of Medicine (TG)
Zheng Shen - Dartmouth College
Ragav Siddharth Parthasarathy - Tufts University
Iryna Sudoma - Clinic of Reproductive Med., Ukraine
Sudeshna Tripathy - Oregon National Primate Ctr (TG)
Russell Urie - University of Michigan (TG)
Landon vom Steeg - Dartmouth College
Alexandra Werner - Tufts University
Qun-Xiong Zeng - University of Hong Kong
Tao Zhang - Chinese University of Hong Kong (TG)



(TG) = Travel Grant Awardee

INVITATION TO ATTEND ASRI 2024



THE 43RD ANNUAL MEETING OF THE AMERICAN SOCIETY FOR REPRODUCTIVE IMMUNOLOGY

www.theasri.org/2024-Houston
Call for Proposals - Deadline: Sept. 15

HOUSTON, TX

ROYAL SONESTA
HOUSTON GALLERIA

ABSTRACT DEADLINE:
FEB 15, 2024



MEETING CHAIRS

INDIRA MYSOREKAR, PhD
RAMKUMAR MENON, PhD

ASRI PRESIDENT

DAVID ARONOFF, MD, PhD



MAY 18-22, 2024