

American Society for Reproductive Immunology



ASRI 2009



29th Annual Meeting

June 5-9, 2009

Caribe Royale Hotel and Convention Center, Orlando, Florida

Tentative Program as of 4-30-2009

PROGRAM

Organized by the ASRI

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American Society for Reproductive Immunology 2009
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Officers:

President: Charles Wira, Ph.D. Lebanon, NH

Vice President: Udo Markert, M.D., Ph.D., Jena, Germany

President-Elect: Surendra Sharma, M.D., Ph.D., Providence, RI

Treasurer: Gil Mor, M.D., Ph.D. New Haven, CT

Secretary: Silvia Daher, Ph.D., Sao Paulo, Brazil

Immediate Past President: Joanne Kwak-Kim, M.D. Chicago, IL

Council Members:

Vikki Abrahams, Ph.D. New Haven, CT

Peter Ahlering, M.D. Creve Coeur, MO

Richard Bronson, M.D. Stonybrook, NY

Mary Brown, Ph.D. Gainesville, FL

Charu Kaushic, Ph. D Hamilton, Ontario, Canada

PRESIDENT'S WELCOME

I would like to welcome you to Orlando to the 29th annual meeting of our society. We can expect to be joined by clinicians and basic scientists to discuss contemporary topics in reproductive immunology and share their research results concerning important new developments in the field. In continuation of what we have started last year with a huge success, we are offering a Post Graduate course to young investigators and trainees. The students and mentors Round-Table-Discussions promise to be another highlight of our meeting. The President's Symposium features current critical topic on human immunodeficiency virus. I expect this meeting to promote intellectual exchange in the various disciplines of reproductive immunology as well as provide mentorship for new scientists interested in reproductive immunology. I believe that after you have read the program you will would to attend every presentation.

I look forwarding to seeing you in Orlando– the perfect destination for our meeting.

Charles Wira, Ph.D.

President, American Society for Reproductive Immunology

MEETING CHAIR'S WELCOME

Welcome to the 2009 Annual Meeting of the American Society for Reproductive Immunology. This year's program is comprehensive and reflects advances both in reproduction and immunology. A balanced mix of new developments in clinical and basic research in the field of reproductive immunology will provide a wealth of information and scientific stimulation for attendees. The facilities in Orlando are outstanding and we would like to thank all who helped to make this meeting successful, especially to University of Florida for assisting in preparation of this meeting and generous support. We look forward to an exciting meeting where we will see old friends and make new ones. Thank you all for your contributions and support.

Peter Hansen, Ph.D.

Chair, 29th Annual Meeting

PAST ASRI MEETINGS AND CHAIRS

<i>Year</i>	<i>Site and Location</i>	<i>Chair</i>
1980	Mount Sinai Medical Center, NY	N. Gleicher
1981	Mount Sinai Medical Center, NY	N. Gleicher
1982	Bowman Gray, Winston-Salem, NC	J. Gudson, Jr.
1983	University of Utah, Salt Lake City, UT	J. R. Scott
1984	Duke University, Durham, NC	S. Gall
1985	University of Michigan, Ann Arbor, MI	A. E. Beer
1986	Toronto, Canada ¹	D. Clark
1987	Indianapolis, IN	C. Coulam
1988	University of Maine, Prout's Neck, ME	N. S. Rote
1989	University of Maine, Prout's Neck, ME	N. S. Rote,
1990	Chicago, IL	N. Gleicher
1991	University of Virginia, Charlottesville, VA	J. Heff
1992	University of South Carolina, Charleston, SC	S. Mathur
1993	Denver ²	J. Head
1994	Thomas Jefferson University, Philadelphia	B. Smith
1995	Washington, DC ¹	C. Coulam
1996	University of Tennessee	D. Torry
1997	University of British Columbia	M. Stephenson
1998	Finch University of Health Science/ The Chicago Medical School	K. Beaman
1999	Cooperstown, NY	S.P.Mathur/ S.D.Michael
2000	University of Florida	P.J. Hansen
2001	Finch University of Health Sciences/ The Chicago Medical School	J.Y.H. Kwak-Kim
2002	Finch University of Health Sciences/ The Chicago Medical School	J.Y.H. Kwak-Kim
2003	Yale University	Gil Mor
2004	University of Southern Illinois, Saint Louis, MO	M. Cooper/ P. Ahlering
2005	Brown University, Providence, IL	S. Sharma
2006	Vanderbilt University, Nashville, TN	G. Yeaman
2007	McMaster University, Ontario, Canada	C. Kaushic
2008	Rush University, Chicago, IL	J. Lubosrky

¹ Held jointly with the International Society for Immunology of Reproduction

² Held jointly with the American Association of Immunologists

MEETING VENUE

The conference headquarters, the **Caribe Royale Hotel and Convention Center**, is located central to all of Orlando's exciting world-famous attractions, just off I-4 and only minutes from theme parks, shopping and the Orlando International Airport. It is the largest all-suite resort in Florida. Guests can enjoy being close to major leisure activities, including factory outlet shopping at two outlet malls within 3 miles, and Walt Disney World Theme Parks[®],



Downtown Disney[®], and Universal Studios, all within 10 miles. The Caribe Royale also offers business services, three restaurants and a lounge onsite, fitness center, two tennis courts, two outdoor pools, plus golf courses nearby. For your dining pleasure, you can choose Montego's for exquisite continental cuisine, Cafe Largo Pizzeria and Deli, or Calypso's for casual food in the pool area.

LEARNING OBJECTIVES

The objectives of the 28th Annual Meeting of the American Society for Reproductive Immunology are to bring together clinicians and basic scientists to:

- *review causes and methods of prevention of HIV.*
- *gain insights into causes and prevention of preterm births.*
- *understand the role of the immune system in the male reproductive tract.*
- *evaluate the latest concepts in understanding endometrial function including the role of stem cells and miRNA.*
- *become knowledgeable of funding sources for reproductive immunology.*
- *appreciate the impact of chlamydial infections on female fertility and health.*
- *recognize the interaction between autoimmune diseases and pregnancy.*
- *appreciate new experimental models for understanding disruptions in pregnancy.*
- *become aware of the properties and function of gamma-delta T cells in the uterus.*
- *review new developments in preeclampsia.*

PROGRAM COMMITTEE

Conference Chair

Chair: Hansen, Peter, Ph.D., Dept. of Animal Sciences, University of Florida, Gainesville, FL.

Co-Chair: Brown, Mary, Ph.D., Dept. of Pathobiology, University of Florida, Gainesville, FL.

Program Committee

Abrahams, Vikki, Ph.D., Department of Obstetrics and Gynecology, Yale University School of Medicine, New Haven, CT.

Cooper, Morris, Ph.D. Department of Medical Microbiology and Immunology, Southern Illinois University School of Medicine, Springfield, IL.

Daher, Silvia, Ph.D., Department of Obstetrics, UNIFESP-EPM, Sao Paulo, Brazil

Kaushic, Charu, Ph.D., Department of Pathology and Molecular Medicine, McMaster University, Hamilton, ON, Canada.

Kunz, Heinz, Ph.D., University of Pittsburg, Pittsburg, PA.

Kwak-Kim, Joanne, M.D., MPH., Women's Health Center, Chicago Medical School, North Chicago, IL

Mor, Gil, M.D., Ph.D., Department of Obstetrics and Gynecology, Yale University School of Medicine, New Haven, CT

Ott, Troy, Ph.D. Animal and Veterinary Sciences Department, University of Idaho, Moscow, ID

Peltier, Morgan, Ph.D., Lead Scientist-Perinatology Research Laboratory, Winthrop University Hospital, Mineola, NY.

Sharma, Surendra M.D., Ph.D., Department of Pediatrics, Brown University, Women and Infant's Hospital of RI, Providence, RI.

Shibahara, Hiroaki, M.D., Ph.D., School of Medicine, Jichi Medical University, Shimotsuke, Japan

Wira, Charles R. Ph.D. Department of Physiology, Dartmouth Medical School, NH

ON-SITE MEETING REGISTRATION

Post graduate course, all scientific sessions, poster session, round table and meetings will be held at the Caribe Royal Hotel and Convention Center. Entry to all sessions requires registration and the wearing of a name badge. Registration will be conducted at the ASRI registration desk, which will be at The Caribbean Registration Desk.

REGISTRATION HOURS

Friday, June 5, 2009 11:00am – 1:00pm

Saturday, June 6, 2009 7:30am – 9:00am

Saturday, June 6, 2009 9:00am – 4:00pm

Sunday, June 7, 2009 7:30am – 4:00pm

Monday, June 8, 2009 7:30am – 12:00pm

Tuesday, June 9, 2009 7:30 – 12:00pm

ACCREDITATION AND DESIGNATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Rosalind Franklin University of Medicine & Science and American Society for Reproductive Immunology. Rosalind Franklin University of Medicine & Science is accredited by the ACCME to provide continuing medical education for physicians. Rosalind Franklin University of Medicine & Science designates this educational activity for a maximum of 18.0 AMA PRA Category 1 Credit(s) TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

ASRI AWARDS

The American Society for Reproductive Immunology presents three awards at its annual meeting:

1. The Blackwell Munksgaard Award is presented annually to a senior investigator who has made outstanding contributions to the area of reproductive immunology. Contributions can be in the area of clinical or basic research. Awardees do not need to be members of the ASRI.
2. The J. Christian Herr is given annually to a member of the ASRI or ISIR, typically in the first 10–15 years beyond accepting a faculty position, who has made outstanding achievements in basic or applied research in reproductive immunology, particularly for investigators involved in technology transfer. The J. Christian Herr award was established by a past president of the ASRI to acknowledge the dedication of his father to invention, innovation and entrepreneurship through decades of volunteerism in the Service Core of Retired Executives (SCORE), a program of the Small Business Administration. The spirit of the award may be found in the words of Louis Pasteur, “There is no true distinction between fundamental and applied science, there is only science in the cause of humankind.”
3. The Dr. John Gusdon Memorial New Investigator Award is awarded 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 of the ASRI. This award is given annually in memory of Dr. John Gusdon, a founding member of the ASRI, and an advocate of student participation in ASRI meeting.
4. The ASRI also awards a variety of travel grants to support travel of trainees to the Annual Meeting. One of these awards, the Alan E. Beer Memorial Travel Grant, is specifically awarded to support travel for a clinical scientist in training status.

EDUCATIONAL GRANTS AND MEETING SPONSORS

ASRI acknowledges the following organizations and sponsors for their generous financial support of ASRI 2009



American Autoimmune Related Diseases Association



EMD Serono



National Institutes of Health



Office of Research

Agricultural Experiment Station

College of Veterinary Medicine

Health Science Center



VisualSonics



Women and Infants Hospital of Rhode Island

Dr. Surendra Sharma



USDA

ANNUAL MEETING CALENDAR

Post Graduate Course (Boca 4)

Friday, June 5, 2009- Saturday, June 6, 2009

Friday, June 5, 2009

11:00am–1:00pm Registration
1:00pm–6:00pm Post graduate course
6:00pm–8.00pm Dinner with the faculty

Saturday, June 6, 2009

7:30am–9:00am Registration
8:00am–12:00pm Post graduate course II

Scientific Program / Plenary Session (Caribbean 6 & 7)

Wednesday, June 6, 2008- Tuesday, June 9, 2009

Saturday, June 6, 2009

9:00am–1:00pm Annual Meeting Registration
1:00pm–1:30pm Opening Remarks and Welcome
1:30pm–3:00pm Presidential Symposium
Human Immunodeficiency Virus
3:30pm–4:30pm Plenary Session 1
Preterm Birth
4:30pm–7:00pm Opening Reception (Poolside)

Sunday, June 7, 2009

7:00am–8:00am Editorial Board Meeting (Boca 4)
7:30am–4:00pm Registration
9:00am–11:00am Poster set up (Caribbean 5)
9:00am–10:00am Plenary Session 2
Male Reproductive Immunology
10:30am–12:00pm Plenary Session 3
Novel Concepts of Endometrial Function
12:00pm–2:00pm Executive Council Meeting (Boca 1)
12:00pm–2:00pm Luncheon Workshop
Funding Opportunities for Reproductive Immunology
Research (Caribbean 6 & 7)
2:00pm–3:15pm 5 Gusdon Award Finalist Oral Presentation
3:15pm–3:30pm Break
3:30pm–5:30pm Poster Session/Wine and Cheese Reception (Caribbean 5)

Monday, June 8, 2009

7:30am–12:00pm Registration
8:30am–10:00am Plenary Session 4
Chlamydial Infections

10:00am–12:00pm Plenary Session 5
Sexually Transmitted Diseases
5:00pm Poster Tear-Down (Caribbean 5)

Tuesday, June 9, 2009

7:30 am–12:00pm Registration
8:30am–10:00am Plenary Session 6
Autoimmunity and Pregnancy
10:00am–12:00pm Plenary Session 7
New Models for Pregnancy Perturbations
1:30pm–2:15pm J. Christian Herr Lecture
2:15pm–4:00pm Plenary Session 8
Pregnancy and Preeclampsia
4:00pm–5:30pm General Business Meeting
6:30pm–9:00pm Awards Banquet (Caribbean 5)



**29th Annual Meeting
American Society for Reproductive Immunology**

**June 5-9, 2009
Caribe Royale Hotel and Convention Center, Orlando,
Florida**

JUNE 5, 2009

**Postgraduate Course
Boca 4**

In Vivo Approaches and New Biology at the Maternal-Fetal Interface: From Small and Large Animals to Humans (Organizers: S. Sharma, G. Chaouat, and D.C. Clark)

11:00 AM Registration through 1:00 PM

1:00 PM Shathiyah Kulandavelu, University of Toronto. Ultrasonic imaging of pregnant rodents.

1:45 PM P. J. Hansen, University of Florida. Ruminant models for the study of pregnancy.

2:30 PM Surendra Sharma, Women and Infants Hospital-Brown University. Methods and models for preterm birth and pre-eclampsia.

3:15 PM Refreshments

3:45 PM Demonstration of ultrasound by VisualSonics (through 6:00 PM)

6:00 PM Dinner with Faculty (*Boca 5 & 6*)

JUNE 6, 2009

**Postgraduate Course
Boca 4**

In Vivo Approaches and New Biology at the Maternal-Fetal Interface: From Small and Large Animals to Humans (Organizers: S. Sharma, G. Chaouat, and D.C. Clark)

7:30 AM Registration through 9:00 AM

8:00 AM P. Arck, McMaster University.

Stress and inflammation in pregnancy: Brain and Body connections.

8:45 AM G. Chaouat, INSERM, Clamart, France. Systemic vs. local immunity in reproduction: Comparative analysis in humans and mice.

9:30 AM Refreshments

10:00 AM C. Marsit, Brown University. Epigenetics and imprinting in placenta.

10:45 AM M. Soares, University of Kansas Medical Center. Adaptations at the maternal-fetal interface.

11:30 AM Steve Palmer, EMD Serono Research Institute. Drug discovery research for implantation failure.

29th Annual Meeting

9:00 AM Registration through 4:00 PM

**Opening Ceremony
Caribbean 6 & 7**

1:00 PM Brown, Hansen, et al. Opening remarks

**Presidential Symposium – Human
Immunodeficiency Virus
Caribbean 6 & 7**

C.R. Wira, Chair

1:15 PM Opening remarks, Wira

- 1:30 PM Morgane Bomsel, Cochin Institute. Physiopathology of the sexual transmission of HIV.
- 2:00 PM Ashley Haase, University of Minnesota Medical School. HIV-1 transmission to women: lessons from the SIV-rhesus macaque model.
- 2:30 PM Robin J. Shattock, St. George's University of London. Creating barriers to mucosal HIV infection: chemical, innate and adaptive.

3:00 PM Refreshments

**Plenary Session 1
Preterm Birth
Caribbean 6 & 7**

Gil Mor, Yale University, and NaYoung Kim, Chairs

- 3:30 PM Morgan Peltier, Winthrop University Hospital, Immunomodulatory treatments for preventing preterm birth.
- 4:00 PM Emmet Hirsch, Dept. of Obstetrics & Gynecology, NorthShore University HealthSystem and Feinberg School of Medicine, Northwestern University. The role of toll-like receptor signaling in preterm labor.

**Opening Reception
Poolside (Atrium East in case of inclement weather)**

4:30 PM Reception through 7:00 PM

JUNE 7, 2009

- 7:00 AM *AJRI* Editorial board meeting through 8:00 AM (*Boca 4*)
- 7:30 AM Registration through 4:00 PM
- 9:00 AM Poster set up through 11:00 AM (*Caribbean 5*)

**Plenary Session 2
Male Reproductive Immunology
Caribbean 6 & 7**

Evangelos Ntrivalas, Rosalind Franklin University and Stefan Neubeck, Friedrich-Schiller-Universität, Chairs

- 9:00 AM Maciej Kurpisz, Polish Academy of Sciences. Strategies for identification of new sperm entities for possible immunocontraception
- 9:30 AM Richard Bronson, Stony Brook University Medical Center. Roles of vitronectin and C1q in fertilization - a tale of two proteins

10:00 AM Refreshments

**Plenary Session 3
Novel Concepts of Endometrial Function
Caribbean 6 & 7**

Troy Ott, Pennsylvania State University, and Satyan Kalkunte, Brown University, Chairs

- 10:30 AM Caroline Gargett, Monash University. Endometrial stem/progenitor cells and endometrial regeneration.
- 11:00 AM Nasser Chegini, University of Florida. miRNAs and their regulatory function in female reproductive tract tissues in normal and disease states.
- 11:30 AM Herington, JL *et al.*, Southern Illinois University School of Medicine and University of Tennessee College of Medicine. Microarray analysis of differential uterine gene expression between interleukin-15 wild-type and knockout mice.

- 11:45 AM Padua, MB and Hansen, PJ. University of Florida, Changes in expression of cell-cycle related genes in PC-3 prostate cancer cells caused by ovine uterine serpin.

12:00 PM Lunch through 2:00 PM

12:00 PM Executive Council Meeting through 2:00 PM (*Boca 1*)

**Luncheon Workshop
Funding Opportunities for Reproductive
Immunology Research**

Caribbean 6 & 7

P.J. Hansen, Chair

- 12:00 PM Koji Yoshinaga, National Institutes of Health. NIH funding opportunities for reproductive immunologists.
- 12:30 PM Michael Katz, March of Dimes. Funding opportunities at the March of Dimes.
- 1:00 PM Roundtable discussion from the Audience

**Gusdon Award Finalist Presentations
Caribbean 6 & 7**

Mary Brown, University of Florida, Chair

- 2:00 PM Friebe, A., *et al.* Charité – Universitätsmedizin Berlin, McMaster University and University of Edinburgh. Psychological stress requires microbial products to cause pregnancy loss in mice.
- 2:15 PM Solano, M.E., *et al.*, Charité University Medicine Berlin, McMaster University, UBACONICET, University College London, and University of Edinburgh, Edinburgh, UK. Fetal origin of adult disease: insights on mechanistic cues and therapeutic targets arising from a mouse model.
- 2:30 PM Racicot, K.E., *et al.*, Pennsylvania State University. Characterization of an MX1-positive population of exosomes secreted by uterine glandular epithelial cells.
- 2:45 PM Cardenas, I., *et al.* Yale University. Inflammation triggered by TLR3 activation disturbs the balance of angiogenic factors in placenta.
- 3:00 PM Kalkunte, S., *et al.*, *Women and*

Infants Hospital, Providence, RI and Dartmouth Medical School. VEGF C facilitates immune tolerance and endovascular activity of human uterine NK cells at the maternal-fetal interface.

3:15 PM Break

**Poster Session/Wine and Cheese
Reception**

Caribbean 5

3:30 PM Posters (until 5:30 PM)

JUNE 8, 2009

7:30 AM Registration through 12:00 PM

**Plenary Session 4
Chlamydial Infections
Caribbean 6 & 7**

Hong-Nerng Ho, National Taiwan University Hospital, and Lilian Oliveira, University of Florida, Chairs

- 8:30 AM Gary Entrican, Moredun Research Institute. Chlamydial persistence, immunological paradigms and the problem of ovine enzootic abortion.
- 9:00 AM Priscilla B. Wyrick, J.H. Quillen College of Medicine, East Tennessee State University. Estrogen enhances *Chlamydia trachomatis* genital infection.
- 9:30 AM Nazli, A., *et al.*, McMaster University. HIV-1 exposure induces TNF- α production by polarized genital and intestinal epithelial monolayers leading to direct impairment of their barrier function.
- 9:45 AM Arase, T., *et al.*, Keio University Hospital, Shinjuku, Tokyo, UDP-glucose and its receptor P2RY14 as a novel innate immunity in the female reproductive tract.

10:00 AM Refreshments

**Plenary Session 5
Sexually Transmitted Diseases
Caribbean 6 & 7**

*Charu Kaushic, McMaster University, and
Jennifer Herington, Southern Illinois
University School of Medicine, Chairs*

- 10:30 AM Kevin Ault, Emory University School of Medicine. Host responses to human papillomavirus: current knowledge and future research needs
- 11:00 AM Betsy Herold, Albert Einstein College of Medicine & Children's Hospital at Montefiore. Role of soluble mucosal genital tract immunity in the overlapping epidemics of genital herpes & HIV.
- 11:30 AM Ito, M., *et al.*, Toyama, Japan and Hatay, Vietnam. Interleukin-17 (IL-17) and tumor necrosis factor- α synergistically increase IL-8 production by amniotic methenchymal cells in preterm delivery cases with chorioamnionitis.
- 11:45 AM Patel, M.V., *et al.*, Dartmouth Medical School. Expression of intracellular antiviral genes in human uterine primary epithelial cells in response to stimulation by viral agonists.

12:00 PM Lunch through 1:30 PM

Florida Explorations

- 12:00 PM Free Time to Tour Orlando and Central Florida, Lounge at the Pool, etc.
- 5:00 PM Poster Tear-Down (*Caribbean 5*)

JUNE 9, 2009

7:30 AM Registration through 12 PM

**Plenary Session 6
Autoimmunity and Pregnancy
Caribbean 6 & 7**

*Joanne Kwak-Kim, Rosalind Franklin
University, and Karen Racitot, Pennsylvania
State University, Chairs*

- 8:30 AM Vikki Abrahams, Yale University, Effects of antiphospholipid antibodies on trophoblast function and survival.
- 9:00 AM Megan E. B. Clowse, Duke University, How rheumatologic disease changes pregnancy... and vice versa.
- 9:30 AM Arroyo, J.A., *et al.* University of Colorado Denver and University of Texas Health Science Center at San Antonio. Decreased p-ERK, but not p-JNK or p-AKT at term is associated with increased apoptosis and caspase 3 following maternal nutrient reduction in the baboon placenta (MNR).
- 9:45 AM Chernyshov, V., *et al.*, Institute of Pediatrics, Obstetrics and Gynecology, Kiev, Reproductive Clinic Nadia, Kiev, and National Medical Academy for Postgraduate Education, Kiev. Th1 and Th2 parameters in women with IVF failure characterized by elevated NK cytotoxicity and antiphospholipid antibodies.
- 10:00 AM Tea/coffee break

**Plenary Session 7
New Models for Pregnancy Perturbations
Caribbean 6 & 7**

*Silvia Daher, Universidade Federal de São
Paulo, and Maria Padua, University of
Florida, Chairs*

- 10:30 AM Kevin Sinclair, University of Nottingham. Developmental origins of health and disease: Periconceptual diet and epigenetic programming in the oocyte and preimplantation embryo.
- 11:00 AM Thomas R. Hansen, Colorado State University. BVDV alters maternal blood cell interferon

stimulated genes and chemokine receptor signaling associated with establishment of persistent fetal viral infection.

and induces their rapid apoptosis.

11:30 AM Karen J. McDowell, University of Kentucky. The role of caterpillars in mare reproductive loss syndrome – a model for environmental causes of abortion.

4:00 PM General Business Meeting (held through 5:30 PM)

6:30 PM Awards Banquet (Caribbean 5)

12:00 PM Lunch through 1:30 PM

**J Christian Herr Lecture
Caribbean 6 & 7**

P.J. Hansen, University of Florida, Chair

1:30 PM Lucia Mincheva-Nilsson, Umeå University. Placenta-derived exosomes: from biogenesis to immunomodulatory role in pregnancy.

**Plenary Session 8 – Pregnancy and Preeclampsia
Caribbean 6 & 7**

*Vikki Abrahams, Yale University, and
Jessica Thaxton, Brown University, Chairs*

2:15 PM Kirk Conrad, University of Florida. Relaxin and circulatory adaptations to pregnancy.

2:45 PM Ananth Karumanchi, Harvard Medical School, Angiogenic factors and preeclampsia.

3:15 PM Lai, Z *et al.*, Women & Infants' Hospital of Rhode Island. Pregnancy-specific effects of hypoxia: a mouse model for preeclampsia.

3:30 PM Iwasawa, Y., *et al.*, University of Tokyo. A possible pathogenic mechanism of recurrent miscarriage associated with β 2 glycoprotein I-dependent anti-phospholipid antibody through the function of CD1d.

3:45 PM Hayakawa, S., *et al.*, Nihon University School of Medicine, University of Tokyo and Yale University. H3N2 influenza A virus replicates in immortalized human first trimester trophoblast cell lines

POSTER SESSION
June 7, 3:30 – 5:30 PM
Caribbean 5

Posters should be put up from 9:00 – 11:00 AM on June 7 and taken down by 5:00 PM on June 8

Pregnancy Failure and Complications

- S-1 Chaouat, GCP¹, Ledée, N¹, Petitbarat, M¹, Bulla, R², Mas, AE¹, Dubanchet, S¹, Tedesco, F². ¹ *INSERM U782, Clamart, 92, France*, ² *University of Trieste, Trieste, Trieste, Italy*. Early regulators of early abortion.
- S-2 Arroyo, JA¹, Li, C², Schlabritz-Loutsevitch, N², McDonald, T², Nathanielsz, P², Galan, HL¹. ¹ *University of Colorado Denver, Aurora, Colorado, USA*, ² *University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA*. Decreased p-ERK, but not p-JNK or p-AKT at term is associated with increased apoptosis and caspase 3 following maternal nutrient reduction in the baboon placenta (MNR).
- S-3 Yang, KM^{1,3}, Nitrivalas, E², Cho, HJ¹, Kim, NY¹, Beaman, K², Gilman-Sachs, A², Kwak-Kim, J^{1,2}. ¹ *Reproductive Medicine, Department of Obstetrics and Gynecology and, ² Department of Microbiology and Immunology, The Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA*. T cell activation and T helper 1 immunity in women with reproductive failures.
- S-4 Kim, NY¹, Yang, KM^{1,2}, Cho, HJ¹, Kwak-Kim, J¹. ¹ *Reproductive Medicine, Department of Obstetrics and Gynecology, The Chicago Medical School at Rosalind Franklin University, North Chicago, IL, USA*, ² *Department of OB & Gyn, Cheil General Hospital & Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Korea*. Thyroid autoimmunity and its association with cellular and humoral immunity in women with reproductive failures.
- S-5 Park, DW¹, Lee, HJ¹, Park, CW¹, Song, IO¹, Kang, IS¹, Hong, SR¹, Kwak-Kim, J², Yang, KM¹. ¹ *Cheil General Hospital & Women's Healthcare Center, Seoul, Korea*, ² *The Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA*. Decidual NK (dNK) cells are correlated with peripheral blood NK (pNK) cells in women with recurrent miscarriages.
- S-6 Lee, SK¹, Kim, JY¹, Yang, KM², Gilman-Sachs, A³, Kwak-Kim, J^{2,3}. ¹ *Dept. of Ob/Gyn Konyang University, Daejeon, Korea*, ² *Reproductive Medicine, Dept. of Ob/Gyn, The Chicago Medical School at Rosalind Franklin University of Medicine and Science, N. Chicago, IL, USA*, ³ *Department of Microbiology and Immunology, The Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA*. Th17 cells seem to be affected by presence of autoantibodies and thrombophilia in women with recurrent spontaneous abortion and multiple implantation failures.
- S-7 Chen, JS¹, Chen, HF², Ho, HN^{1,2}. ¹ *Graduate Institute of Immunology NTU, Taipei, Taiwan*, ² *Department of Obstetrics and Gynecology NTUH, Taipei, Taiwan*. The expression of Decoy receptor 3 is significantly lower in decidua from anembryonic pregnancies than that from normal pregnancies.
- S-8 Scarpellini, F, Sbracia, M. *CERM, Rome, Italy*. Aspirin versus aspirin plus heparin in the treatment of women with habitual abortion and positive to anticardiolipin at low or moderate levels: a controlled trial.
- S-9 Ahn, HK², Kim, JK¹, Yang, KM², Kim, MH², Jung, JH², Choi, JS², Han, JY², Rheu, HM²,

- Kim, MY², Yang, JH². ¹ *The Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA*, ² *Cheil General Hospital & Women's Healthcare Center, Kwandong University College of Medicine, Seoul, South Korea*. Obstetric outcomes in women with recurrent spontaneous abortions (RSA) of immune etiology who were successfully treated with intravenous immunoglobulin G.
- S-10 Leavenworth, JD¹, Groesch, KA¹, Hu, X¹, Malm, SW¹, Torry, RJ², Abrams, RM¹, Torry, DS¹. ¹ *Southern Illinois University School of Medicine, Springfield, IL, USA*, ² *Drake University, Des Moines, IA, USA*. Evidence of promyelocytic leukemia (PML) protein dysregulation in preeclamptic placenta; potential implications for impaired angiogenesis.
- S-11 Fukui, A, Nakamura, R, Yamada, K, Fukuyama, A, Kimura, H, Yamamoto, Y, Tanaka, K, Ozaki, T, Fujii, S, Mizunuma, H. *Hirosaki University, Hirosaki, Aomori, Japan*. The expression of natural cytotoxicity receptors and production of NK cell cytokines in pregnant women with pregnancy-induced hypertension.
- S-12 Cardenas, I, Aldo, P, Koga, K, Means, R, Lang, S, Mor, G. *Yale University School of Medicine, New Haven, CT, USA*. Subclinical viral infection in pregnancy leads to inflammatory process at the placenta with non-lethal fetal damage.
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