

**American Society for Reproductive Immunology (ASRI)
29th Annual Meeting
June 5-June 9, 2009, Orlando, Florida
Organizers: Peter Hansen and Mary Brown**

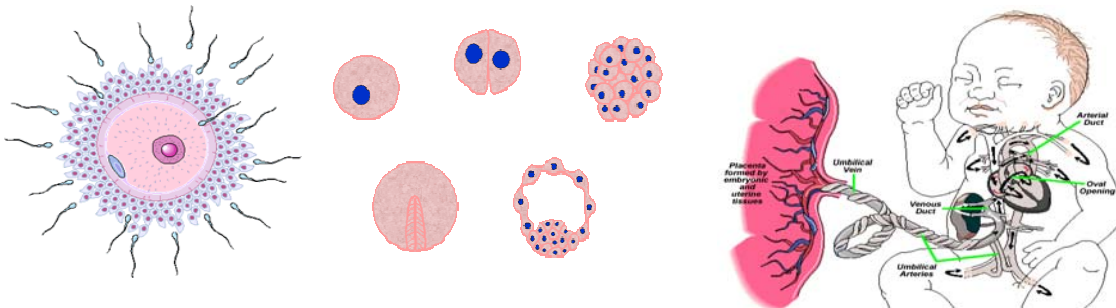
Post Graduate Course

***In vivo* Approaches and New Biology
at the Maternal-Fetal Interface:
From small and large animals to humans**

**Chair: Surendra Sharma (USA)
Co-chair: Gerard Chaouat (France)
Co-organizer: David Clark (Canada)**

**When: June 5-6, 2009
Where: Caribe Royale Hotel and Conventions Center
Orlando, Florida, USA**

Learning Objectives



The post-graduate course organized in conjunction with annual ASRI meetings is designed to acquaint attendees with new questions and new techniques underlying the normal and abnormal events at the maternal-fetal interface. It is increasingly clear that the immunity, placenta and hormones play a pivotal role in orchestrating *in utero* embryonic development. There appears to be a composite triad of dynamic equilibrium involving the placental milieu, the fetus and the mother. Thus, the maternal-fetal interface can provide a blueprint for the events that lead to a normal or a compromised pregnancy. Recent revolutionary advances in technical know-how and thematic excellence now make it possible to not only investigate the issues in animals but to transport this knowledge from bench to bedside. This post-graduate course will focus on recent state of the art techniques and themes, including high resolution ultrasound imaging in rodents, use of knock-out/knock-in mice (as a way of looking at molecules important at the maternal-fetal interface), epigenetics, and TLR-vaginal flora issues in preterm birth. Each topic will be lectured by an expert in the respective field.

At the end of the course, all participants should be able to:

- Recognize the differences in hemochorial and non-hemochorial placenta, and application of study design.
- Evaluate epigenetics and imprinting in placenta and its clinical relationship
- Apply recent state-of-the art techniques and themes including high resolution ultrasound imaging in rodents to future study.
- Explain the role of inflammatory immune responses in obstetrical complications such as pre-eclampsia and preterm labor.
- Evaluate the neurological control of inflammatory immune response

Travel Trainee Award

Trainee award will be given to the clinical and laboratory scientists in early training stage. Each year, travel award will be given to fifteen (15) students who are trainees or new investigators whose research involve in clinical science and translational research. NICHD, USDA, and ASRI provide trainee travel funding for this program.

POST GRADUATE COURSE PROGRAM 2009

June 5, 2009

- 11:00am-1:00pm: **Registration**
- 1:00pm-1:45pm: **Ultrasonic imaging of pregnant rodents**
Shathiyah Kulandavelu, PhD, University of Toronto, Canada
- 1:45pm-2:30pm: **Ruminant models for the study of pregnancy**
Peter Hansen, PhD, Department of Animal Sciences, University of Florida,
Gainesville, Florida, USA
- 2:30pm-3:15pm: **Methods and models for preterm birth and pre-eclampsia**
Surendra Sharma, MD, PhD, Women and Infants Hospital, Department of
Pediatrics, Providence, Rhode Island, USA
- 3:15pm-3:45pm: **Coffee Break**
- 3:45pm-6:00pm: **Ultrasound demonstration session**
VisualSonics Inc., Toronto, Canada
- 6:00pm-8:00pm: **Dinner with Faculty**

June 6, 2009

- 8:00am-8:45am: **Stress and inflammation in pregnancy: Brain and Body connections**
Petra Arck, MD, McMaster University, Department of Medicine, Toronto,
Canada
- 8:45am-9:30am: **Systemic vs. local immunity in reproduction: Comparative analysis in
humans and mice**
Gerard Chaouat, MD, PhD, Inserm, Clamart, France
- 9:30am -10:00am: **Coffee break**
- 10:00am-10:45am: **Epigenetics and imprinting in placenta**
Carmen Marsit, PhD, Brown University, Department of Bio Med Pathology
& Laboratory Medicine, Providence, Rhode Island, USA
- 10:45am-11.30am: **Adaptations at the maternal-fetal interface**
Michael Soares, PhD, University of Kansas Medical School, Department of
Pathology & Laboratory Medicine, Kansas City, Kansas, USA
- 11:30am-12.15pm: **Drug Discovery Research for Implantation Failure**
Steve Palmer, PhD, EMD Serono Research Institute, Rockland, MA., USA