Main Theme: From Gametes to Stem Cells and Back: Basic Biology and Emerging Applications.

Co-Chairs: H. Michael Kubisch, Tulane National Primate Research Center and X. Cindy Tian, University of Connecticut
Special thanks go to X. Jerry Yang, University of Connecticut, for his input and assistance with developing this program.

Keynote Address: Dolly: A Decade of Progress – *Ian Wilmut, Scottish Centre for Regenerative Medicine, Edinburgh, United Kingdom.*

I. **Environmental Effects on Embryo/Gamete Development**
- Circadian Rhythm Genes in Reproductive Tissues and Germ Cells – *Hamid Dowlatshad, Northeastern University, Boston, MA.*

II. **Age and Gamete/Embryo Quality**
- Telomeres and Reproductive Aging – *David L. Keefe, Department of Obstetrics and Gynecology, University of South Florida, Tampa, Florida.*
- Spermatogonial Stem Cells: Unlimited Potential – *Martin Dym, Biochemistry and Molecular & Cellular Biology, Georgetown University, Washington, DC.*

III. **Emerging Tools for Research**
- Embryonic Gene Expression Profiling via Microarray Analysis – *Sadie Smith, Yale University, New Haven, Connecticut.*
- Genetic Modification for Bi-maternal Embryo Development – *Tomohiro Kono, Department of BioScience, Tokyo University of Agriculture, Setagaya-ku, Tokyo.*

IV. **Cryopreservation of Manipulated Oocytes and Embryos**
- Nuclear Transfer and Oocyte Cryopreservation – *Peter Nagy, Reproductive Biology Associates, Atlanta, Georgia.*
- Cryopreservation of Manipulated Embryos: Tackling the Double Jeopardy – *Andras Dinnyes, Agricultural Biotechnology Center, Szent Istvan University, Hungary.*

V. **Effects of Nuclear Transfer on Postimplantation Development**
- Altered Gene Expression in Cloned Piglets – *X. Cindy Tian, University of Connecticut. Storrs, Connecticut.*
- Transcriptional Heterogeneity in Mouse Embryonic Stem Cells – *Tetsuya S. Tanaka, University of Illinois, Urbana, Illinois.*

VI. **Use of Stem Cells and Heterospecific Oocytes in Wildlife Cloning**
- Cloning Endangered Felids by Using Heterospecific Donor Oocytes and Interspecies Embryo Transfer – *Martha Gomez, Audubon Center for Research of Endangered Species, New Orleans, Louisiana.*
- Cloning From Stem Cells – Different Lineages, Different Species, Same Reprogrammability – *Bjorn Oback, Agresearch, Hamilton, New Zealand.*