Official Journal of the Society for BIOLOGY of the Study of Reproduction February 2013 EPRODUCTION VOLUME 88 NUMBER 2 ORLD OF REPRODUCTIVE BIOLOGY . . . Article 28 Charlotte Schubert, Ph.D., Science Writer litorial e Role of Scientists and Clinicians in Raising Public Support for Animal Research in Reproductive Article 33 E.A.F. Dancet, M. Brännström, K. Brasky, D. Chai, A.W.S. Chan, P.M. Conn, J. Else, H. Falconer, A.T. Fazleabas, I.O. Farah, B.M. Goddeeris, T.G. Golos, J. Hau, J.P. Hearn, T.M. Kariuki, C.M. Kyama, D.I. Lebovic, J.M. Mwenda, J. Ndung'u, A. Nyachieo, J. Parker, Ov D. Slayden, R.L. Stouffer, J.F. Strauss, H.S. Taylor, S. Vanderpoel, J.G. Westergaard, M. Zelinski, and T.M. D'Hooghe Researchers active in reproductive animal research must clearly and compassionately convey information to and seek active support from students, patients, and the general public on the merit and need for biomedical research. ommentary Article 43 Ov D. Slavden In this month's issue of Biology of Reproduction, Afshar et al. report on the effects of endometriosis on gene expression in the baboon endometrium. Article 50 Sergei Tevosian The study by Agbor et al. in this issue of Biology of Reproduction provides a novel approach to determine the functions of Sertoli cell and germ cell-expressed Dmrt1. linireview ossible Role of PACAP and Its PAC1 Receptor in the Differential Regulation of Pituitary LHbeta- and Hbeta-Subunit Gene Expression by Pulsatile GnRH Stimulation............... Article 35 Haruhiko Kanasaki, Indri N. Purwana, and Kohji Miyazaki A review of the involvement of pituitary adenylate 11 cyclase-activating polypeptide (PACAP) and its receptor in specific gonadotropin control by pulsatile GnRH stimulation. mbryo ocus-Specific DNA Methylation Reprogramming During Early Porcine Embryogenesis Article 48 Ming-Tao Zhao, Rocio M. Rivera, and Randall S. Prather DNA methylation reprogramming in early porcine embryos is locus-specific and associated with multiple functions of DNA methylation in transcriptional regulation, genomic imprinting, and genome stability. nvironment

rgeted Genome-Wide Methylation and Gene Expression Analyses Reveal Signaling Pathways Involved in varian Dysfunction after Developmental EDC Exposure in Rats Article 52 Aparna Mahakali Zama and Mehmet Uzumcu

Developmental exposure to the model endocrine-disrupting chemical methoxychlor leads to age-dependent alterations in DNA methylation patterns in multiple signaling molecules, resulting in ovarian dysfunction in adulthood.

Female Reproductive Tract	
Changes in Eutopic Endometrial Gene Expression During the Progression of Experimental Endometriosis in the Baboon, <i>Papio Anubis</i>	Article 44
Yalda Afshar, Julie Hastings, Damian Roqueiro, Jae-Wook Jeong, Linda C. Giudice, and Asgerally T. Fazleabas	
Molecular changes in the eutopic endometrium associated with endometriosis are directly affected by endometriotic lesions, providing evidence that it is the disease, rather than inherently defective endometrium, that causes aberrant gene expression in the eutopic endometrium.	
Gamete Biology	
Reduced Chromosome Cohesion Measured by Interkinetochore Distance Is Associated with Aneuploidy Even in Oocytes from Young Mice	Article 31
Julie A. Merriman, Simon I.R. Lane, Janet E. Holt, Phoebe C. Jennings, Irene García-Higuera, Sergio Moreno, Eileen A. McLaughlin, and Keith T. Jones In young adult mice, interkinetochore distances of chromosomes are greater in aneuploid than in euploid eggs.	
Posttranscriptional Regulation of Histone Lysine Methyltransferase GLP in Embryonic Male Mouse Germ Cells	Article 36
Katsuaki Deguchi, Go Nagamatsu, Hitoshi Miyachi, Yuzuru Kato, Sumiyo Morita, Hiroshi Kimura, Satsuki Kitano, Izuho Hatada, Yumiko Saga, Makoto Tachibana, and Yoichi Shinkai The expression of histone methyltransferase G9a-like-protein (GLP) is posttranscriptionally regulated.	Authore 30
Loss of R2D2 Proteins ROPN1 and ROPN1L Causes Defects in Murine Sperm Motility, Phosphorylation, and Fibrous Sheath Integrity	Article 41
A-kinase anchoring proteins (AKAP)-binding R2D2 proteins ROPN1 and ROPN1L are essential for sperm fibrous sheath integrity, normal tyrosine and PKA phosphorylation events, and full acquisition of motility.	
Sperm Attractant in the Micropyle Region of Fish and Insect Eggs	Article 47
Cryopreserved Bovine Spermatozoal Transcript Profile as Revealed by High-Throughput Ribonucleic Acid Sequencing	Article 49
Christopher J. Card, Elizabeth J. Anderson, Samanta Zamberlan, Karin E. Krieger, Michael Kaproth, and Becky L. Sartini The bovine spermatozoal transcript profile contains degraded and full-length mRNAs.	
Marshaulana of Hammana Action	
Mechanisms of Hormone Action Luteinizing Hormone Plasmid Therapy Results in Long-Lasting High Circulating Lh and Increased Sperm Production in European Sea Bass (<i>Dicentrarchus labrax</i>)	Article 32
María José Mazón, Silvia Zanuy, Iciar Muñoz, Manuel Carrillo, and Ana Gómez Injection of an Lh-coding gene in sea bass muscle provides sustained high plasma levels of functional Lh; with biological effects similar to recombinant Lh, both of which mimic the natural Lh function.	
Ovary	
Hormonal Coordination of Natriuretic Peptide Type C and Natriuretic Peptide Receptor 3 Expression in Mouse Granulosa Cells	Article 42
Kyung-Bon Lee, Meijia Zhang, Koji Sugiura, Karen Wigglesworth, Tracy Uliasz, Laurinda A. Jaffe, and John J. Eppig	
Expression of natriuretic peptide type C (NPPC) in mouse granulosa cells is regulated by estrogen, gonadotropins, and EGF, but ovarian NPPC peptide levels are unaffected by mutation of the NPR3 clearance receptor.	
Role of the Antiapoptotic Proteins BCL2 and MCL1 in the Neonatal Mouse Ovary	Article 46
Robin L. Jones and Melissa E. Pepling Inhibition of MCL1 decreases neonatal oocyte survival and increases cyst breakdown and primordial follicle formation.	

Pituitary	
Castration-Induced Modifications of GnRH-Elicited [Ca ²⁺]; Signaling Patterns in Male Mouse Pituitary Gonadotrophs In Situ: Studies in the Acute Pituitary Slice Preparation	Article 38
María Luisa Durán-Pastén, Tatiana Fiordelisio-Coll, and Arturo Hernández-Cruz GnRH-induced Ca ²⁺ signaling patterns recorded from both intact and castrated mouse gonadotrophs in vivo differ from rat gonadotrophs in vitro, suggesting testosterone does not regulate pituitary gonadotrophs equally across species.	
Pregnancy	
Analysis of Circulating DNA Distribution in Pregnant and Nonpregnant Dairy Cows	Article 29
Change of Genes in Calcium Transport Channels Caused by Hypoxic Stress in the Placenta, Duodenum, and Kidney of Pregnant Rats	Article 30
Hyun Yang, Beum-Soo An, Kyung-Chul Choi, and Eui-Bae Jeung The expression of calcium transport channels is regulated under hypoxic stress in the placenta, duodenum, and kidney of the preeclampsia-like rat model during pregnancy.	
Adrenomedullin Enhances Invasion of Human Extravillous Cytotrophoblast-Derived Cell Lines by Regulation of Urokinase Plasminogen Activator Expression and S-Nitrosylation	Article 34
Ben S.T. Wong, Kevin K.W. Lam, Cheuk-Lun Lee, Vera H.H. Wong, Maggie P.Y. Lam, Ivan K. Chu, William S.B. Yeung, and Philip C.N. Chiu Adrenomedullin upregulates urokinase plasminogen activator expression and S-nitrosylation to enhance extravillous cytotrophoblast invasiveness.	
Maternal Dietary Omega-3 Fatty Acid Supplementation Reduces Placental Oxidative Stress and Increases Fetal and Placental Growth in the Rat	Article 37
Megan L. Jones, Peter J. Mark, Trevor A. Mori, Jeffrey A. Keelan, and Brendan J. Waddell Maternal dietary omega-3 fatty acid supplementation reduces placental oxidative stress and enhances placental and fetal growth in late gestation.	
Effects of Leptin on Lipopolysaccharide-Induced Remodeling in an In Vitro Model of Human Myometrial Inflammation	Article 45
Maeva Wendremaire, Pascal Mourtialon, Françoise Goirand, Frédéric Lirussi, Marina Barrichon, Tarik Hadi, Carmen Garrido, Isabelle Le Ray, Monique Dumas, Paul Sagot, and Marc Bardou Leptin, a marker of obesity, inhibits LPS-induced myometrial remodeling by increasing collagen synthesis and reversing collagen degradation through MMP inhibition, contributing to the development of obesity-related delivery disorders.	
Testis	
Turning a Spermatogenic Wave into a Tsunami: Synchronizing Murine Spermatogenesis Using WIN 18,446.	Article 40
Cathryn A. Hogarth, Ryan Evanoff, Debra Mitchell, Travis Kent, Christopher Small, John K. Amory, and Michael D. Griswold The treatment of mice with WIN 18,446 suppresses retinoic acid-mediated differentiation of spermatogonia and synchronizes spermatogenesis.	
A Wt1-Dmrt1 Transgene Restores DMRT1 to Sertoli Cells of Dmrt1 ^{-/-} Testes: A Novel Model of DMRT1-Deficient Germ Cells	Article 51
ADDITIONS AND CORRECTIONS	Article 39