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World of Reproductive Biology

Charlotte Schubert

Orienting the Oviduct

Biol Reprod March 2015 92 (3) 57, 1-1; published ahead of printDecember 3, 2014, doi:10.1095/biolreprod.114.127282

Full Text **Full Text (PDF)**

Charlotte Schubert

Chromatin Keeps Fat in the Family

Biol Reprod March 2015 92 (3) 58, 1-1; published ahead of printDecember 10, 2014, doi:10.1095/biolreprod.114.127548

Full Text **Full Text (PDF)**

Charlotte Schubert

Scaffold for Splicing

Biol Reprod March 2015 92 (3) 59, 1-1; published ahead of printDecember 17, 2014, doi:10.1095/biolreprod.114.127720

Full Text **Full Text (PDF)**

Charlotte Schubert

Placenta Makes Antibodies that Bind Up Maternal Antibodies

Biol Reprod March 2015 92 (3) 60, 1-1; published ahead of printDecember 23, 2014, doi:10.1095/biolreprod.114.127811

Full Text **Full Text (PDF)**

Minireview

Laila F. Jerman and Alison J. Hey-Cunningham

The Role of the Lymphatic System in Endometriosis: A Comprehensive Review of the Literature

Biol Reprod March 2015 92 (3) 64, 1-10; published ahead of printJanuary 14, 2015, doi:10.1095/biolreprod.114.124313

Abstract **Full Text** **Full Text (PDF)** **Author Biosketches**

Summary: The lymphatic system plays important roles in the pathogenesis and establishment of endometriosis, with disturbances in the uterus, pelvic lymph nodes, and endometriotic lesions.

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Research Articles

Embryo

Jiaojiao Huang, Hongyong Zhang, Xianlong Wang, Kyle B. Dobbs,Jing Yao, Guosong Qin, Kristin Whitworth, Eric M. Walters,Randall S. Prather, and Jianguo

Impairment of Preimplantation Porcine Embryo Development by Histone Demethylase *KDM5B* Knockdown Through Disturbance of Bivalent H3K4me3-H3K27me3 Modifications

Biol Reprod March 2015 92 (3) 72, 1-11; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.122762

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: *KDM5B* knockdown impaired preimplantation porcine embryo development through the disturbance of bivalent H3K4me3-H3K27me3 modifications.

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Female Reproductive Tract

Annelie Tjernlund, Ann M. Carias, Sonia Andersson,Susanna Gustafsson-Sanchez, Maria Röhl, Pernilla Petersson,Andrea Introini, Thomas J. Hope, and Kristi

Progesterone-Based Intrauterine Device Use Is Associated with a Thinner Apical Layer of the Human Ectocervical Epithelium and a Lower ZO-1 mRNA Expression

Biol Reprod March 2015 92 (3) 68, 1-10; published ahead of printJanuary 14, 2015, doi:10.1095/biolreprod.114.122887

Abstract **Full Text** **Full Text (PDF)**

Summary: Progesterone-based IUD use was associated with a thinner apical layer of the ectocervical epithelium and lower mRNA expression of the tight junction marker ZO-1, which may be indicative of a weak epithelial barrier to invading pathogens.

Manjunatha K. Nanjappa, Theresa I. Medrano, Amelia G. March,and Paul S. Cooke

Neonatal Uterine and Vaginal Cell Proliferation and Adenogenesis Are Independent of Estrogen Receptor 1 (ESR1) in the Mouse

Biol Reprod March 2015 92 (3) 78, 1-10; published ahead of printFebruary 4, 2015, doi:10.1095/biolreprod.114.125724

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: Uterine and vaginal cell proliferation and apoptosis, uterine gland development, and progesterone responsiveness are normal during the preweaning period in mice lacking ESR1, indicating that these processes do not require ESR1.

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Gamete Biology

Rahul Bhattacharjee, Suranjana Goswami, Tejasvi Dudiki,Anthony P. Popkie, Christopher J. Phiel, Douglas Kline,and Srinivasan Vijayaraghavan
Targeted Disruption of Glycogen Synthase Kinase 3a (*Gsk3a*) in Mice Affects Sperm Motility Resulting in Male Infertility
Biol Reprod March 2015 92 (3) 65, 1-12; published ahead of printJanuary 7, 2015, doi:10.1095/biolreprod.114.124495
Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: GSK3A has an irreplaceable role in sperm function and male fertility.

Tapan K. Chourasia, Yefei Pang, and Peter Thomas
The Catecholestrogen, 2-Hydroxyestradiol-17beta, Acts as a G Protein-Coupled Estrogen Receptor 1 (GPER/GPR30) Antagonist to Promote the Resumption of Meiosis in Zebrafish Oocytes
Biol Reprod March 2015 92 (3) 69, 1-13; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.125674
Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: 2-OHE_2 antagonizes estrogen signaling through GPER to promote the resumption of meiosis in zebrafish oocytes.

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Immunology

Bellisa Freitas Barbosa, Janice Buiate Lopes-Maria,Angelica Oliveira Gomes, Mariana Bodini Angeloni,Andressa Silva Castro, Priscila Silva Franco, Marise Lo
IL10, TGF Beta1, and IFN Gamma Modulate Intracellular Signaling Pathways and Cytokine Production to Control*Toxoplasma gondii* Infection in BeWo Trophoblast Cells
Biol Reprod March 2015 92 (3) 82, 1-13; published ahead of printFebruary 11, 2015, doi:10.1095/biolreprod.114.124115
Abstract **Full Text** **Full Text (PDF)**

Summary: IL10, TGFB1, and IFNG modulate *T. gondii* infection in BeWo trophoblast cells by triggering intracellular signaling pathways and the production of other cytokines.

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Male Reproductive Tract

Marion Mandon and Daniel G. Cyr
Tricellulin and Its Role in the Epididymal Epithelium of the Rat
Biol Reprod March 2015 92 (3) 66, 1-11; published ahead of printJanuary 7, 2015, doi:10.1095/biolreprod.114.120824
Abstract **Full Text** **Full Text (PDF)** **Supplemental Movies**

Summary: Tricellulin is an essential protein for the function of the blood-epididymal barrier; principal and basal cells do not appear to be from heterologous tricellular junctions.

Shannon D. Whirledge, Jose M. Garcia, Roy G. Smith,and Dolores J. Lamb
Ghrelin Partially Protects Against Cisplatin-Induced Male Murine Gonadal Toxicity in a GHSR-1a-Dependent Manner
Biol Reprod March 2015 92 (3) 76, 1-11; published ahead of printJanuary 28, 2015, doi:10.1095/biolreprod.114.123570
Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: Coadministration of ghrelin with cisplatin protects against cisplatin-induced cachexia and partially prevents gonadal toxicity in male mice through a Ghsr-dependent mechanism.

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Neuroendocrinology

Felipe Espigares, Manuel Carrillo, Ana Gómez, and Silvia Zanuy
The Forebrain-Midbrain Acts as Functional Endocrine Signaling Pathway of Kiss2/Gnrh1 System Controlling the Gonadotroph Activity in the Teleost Fish European Sea Bass (*Dicentrarchus labrax*)
Biol Reprod March 2015 92 (3) 70, 1-13; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.125138
Abstract **Full Text** **Full Text (PDF)**

Summary: The forebrain-midbrain is involved in the neuroendocrine regulation of gonadotrophs activity via the Kiss2/Gnrh1 system, and therefore plays a key role in the central regulation of the reproductive

function.

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Ovary

Sana M. Salih, Ashley K. Ringelstetter, Mazin Z. Elsarrag,David H. Abbott, and Elon C. Roti Roti

Dexrazoxane Abrogates Acute Doxorubicin Toxicity in Marmoset Ovary

Biol Reprod March 2015 92 (3) 73, 1-11; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.119495

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

OPEN ACCESS ARTICLE

Summary: Dexrazoxane inhibits acute doxorubicin-induced DNA damage and early apoptotic signaling in cultured marmoset ovarian tissue sections, establishing this monkey as a promising nonhuman primate model for drug-based fertility preservation in female cancer patients facing chemotherapy treatment.

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Pregnancy

Xiaoqiu Wang, Robert C. Burghardt, Jared J. Romero,Thomas R. Hansen, Guoyao Wu, and Fuller W. Bazer

Functional Roles of Arginine During the Peri-Implantation Period of Pregnancy. III. Arginine Stimulates Proliferation and Interferon Tau Production by Ovine Trophectoderm Cells via Nitric Oxide and Polyamine-TSC2-MTOR Signaling Pathways

Biol Reprod March 2015 92 (3) 75, 1-17; published ahead of printFebruary 4, 2015, doi:10.1095/biolreprod.114.125989

Abstract **Full Text** **Full Text (PDF)**

Summary: Arginine has multifunctional roles that govern trophectoderm cell fate and function required for successful outcomes of pregnancy.

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Reproductive Technology

Eiji Mizutani, Mami Oikawa, Hidetoshi Kassai, Kimiko Inoue,Hirosuke Shiura, Ryutaro Hirasawa, Satoshi Kamimura, Shogo Matoba,Narumi Ogonuki, Hiroaki

Generation of Cloned Mice from Adult Neurons by Direct Nuclear Transfer

Biol Reprod March 2015 92 (3) 81, 1-11; published ahead of printFebruary 4, 2015, doi:10.1095/biolreprod.114.123455

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

OPEN ACCESS ARTICLE

Summary: Different types of neuronal cells from adult brains can be used for nuclear transfer to generate live cloned mice, with CA1 pyramidal cells from the male hippocampus being the most efficient donors.

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Testis

Zhenghui Liu, Shutao Zhao, Qiaoyuan Chen, Keqin Yan, Peng Liu,Nan Li, C. Yan Cheng, Will M. Lee, and Daishu Han

Roles of Toll-Like Receptors 2 and 4 in Mediating Experimental Autoimmune Orchitis Induction in Mice

Biol Reprod March 2015 92 (3) 63, 1-11; published ahead of printJanuary 14, 2015, doi:10.1095/biolreprod.114.123901

Abstract **Full Text** **Full Text (PDF)**

Summary: TLR2 and TLR4 play important roles in mediating experimental autoimmune orchitis induction after immunization of mice with allogenic male germ cell antigens.

Fabrice G. Petit, Christine Kervarrec, Soazik P. Jamin,Fatima Smagulova, Chunxiang Hao, Emmanuelle Becker, Bernard Jégou,Frédéric Chalmel, and Michael

Combining RNA and Protein Profiling Data with Network Interactions Identifies Genes Associated with Spermatogenesis in Mouse and Human

Biol Reprod March 2015 92 (3) 71, 1-18; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.126250

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: Integration of cross-species RNA/protein profiling data, epigenetic data, and protein network information identifies genes associated with spermatogenesis; further characterization of six target proteins confirms mRNA expression patterns.

Han Lin, Yadong Huang, Zhijian Su, Qiqi Zhu, Yufei Ge, Guimin Wang,Claire Q.F. Wang, Motoko Mukai, Denise R. Holsberger, Paul S. Cooke,Qing-Quan Liar

Deficiency of CDKN1A or Both CDKN1A and CDKN1B Affects the Pubertal Development of Mouse Leydig Cells

Biol Reprod March 2015 92 (3) 77, 1-10; published ahead of printJanuary 21, 2015, doi:10.1095/biolreprod.114.118463

Abstract **Full Text** **Full Text (PDF)**

Summary: CDKN1A and CDKN1B regulate Leydig cell proliferation and steroidogenesis.

Xiaohua Jiang, Tieliang Ma, Yuanwei Zhang, Huan Zhang, Shi Yin,Wei Zheng, Liu Wang, Zheng Wang, Manan Khan, Salma W. Sheikh,Ihtisham Bukhari, Fur

Specific Deletion of *Cdh2* in Sertoli Cells Leads to Altered Meiotic Progression and Subfertility of Mice

Biol Reprod March 2015 92 (3) 79, 1-12; published ahead of printJanuary 28, 2015, doi:10.1095/biolreprod.114.126334

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: *Cdh2* deletion in Sertoli cells leads to meiotic delay and subfertility because of the compromised blood-testis barrier function.

Mirella L. Meyer-Ficca, Motomasa Ihara, Jessica J. Bader, N. Adrian Leu,Sascha Beneke, and Ralph G. Meyer

Spermatid Head Elongation with Normal Nuclear Shaping Requires ADP-Ribosyltransferase PARP11 (ARTD11) in Mice

Biol Reprod March 2015 92 (3) 80, 1-13; published ahead of printFebruary 11, 2015, doi:10.1095/biolreprod.114.123661

Abstract **Full Text** **Full Text (PDF)** **Supplemental Data**

Summary: The mono(ADP-ribose) transferase PARP11 is expressed in differentiating spermatids, where its presence is required for nuclear shaping during spermatid condensation and its absence causes teratozoospermia and infertility.

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Toxicology

Sakhila K. Banu, Jone A. Stanley, Kirthiram K. Sivakumar, Joe A. Arosh,Rola Barhoumi, and Robert C. Burghardt

Identifying a Novel Role for X-prolyl Aminopeptidase (*Xpnpep*) 2 in CrVI-Induced Adverse Effects on Germ Cell Nest Breakdown and Follicle Development in Rats

Biol Reprod March 2015 92 (3) 67, 1-18; published ahead of printJanuary 7, 2015, doi:10.1095/biolreprod.114.125708

Abstract **Full Text** **Full Text (PDF)**

Summary: CrVI targeting of *Xpnpep2* disrupts oocyte nest breakdown and follicle development and is a marker of premature ovarian failure.

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Additions and Corrections

ADDITIONS AND CORRECTIONS

Biol Reprod March 2015 92 (3) 61, 1-1; published ahead of printJanuary 14, 2015, doi:10.1095/biolreprod.115.127944

Full Text **Full Text (PDF)**

ADDITIONS AND CORRECTIONS

Biol Reprod March 2015 92 (3) 62, 1-1; published ahead of printJanuary 14, 2015, doi:10.1095/biolreprod.115.127951

Full Text **Full Text (PDF)**

ADDITIONS AND CORRECTIONS

Biol Reprod March 2015 92 (3) 74, 1-1; published ahead of printJanuary 28, 2015, doi:10.1095/biolreprod.115.128520

Full Text **Full Text (PDF)**

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