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Biol Reprod March 2016 94 (3) 49, 1-1; published ahead of print December 2, 2015, doi:10.1095/biolreprod.115.137521

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Charlotte Schubert

Conserved Pool of piRNAs Function in Reproduction

Biol Reprod March 2016 94 (3) 50, 1-1; published ahead of print December 16, 2015, doi:10.1095/biolreprod.115.137976

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Charlotte Schubert

The Inconstant Oviduct

Biol Reprod March 2016 94 (3) 51, 1-1; published ahead of print December 23, 2015, doi:10.1095/biolreprod.115.138180

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Core Component of Preeclampsia

Biol Reprod March 2016 94 (3) 52, 1-1; published ahead of print December 30, 2015, doi:10.1095/biolreprod.115.138321

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Minireview

- Violeta Stojanovska, Sicco A. Scherjon, and Torsten Plösch
Preeclampsia As Modulator of Offspring Health
Biol Reprod March 2016 94 (3) 53, 1-10; published ahead of print January 20, 2016, doi:10.1095/biolreprod.115.135780
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Author Biosketches](#)

Summary: During preeclampsia, the placental functionality is profoundly affected, leading to exposure of the young organism to unfavorable pathophysiological circumstances.

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Research Articles

Female Reproductive Tract

- Gregory W. Burns, Kelsey E. Brooks, and Thomas E. Spencer
Extracellular Vesicles Originate from the Conceptus and Uterus During Early Pregnancy in Sheep
Biol Reprod March 2016 94 (3) 56, 1-11; published ahead of print January 27, 2016, doi:10.1095/biolreprod.115.134973
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)
- Summary:** Extracellular vesicles are released by the conceptus and uterus and potentially mediate their interactions during early pregnancy in sheep.
- Lydia Ferguson, Elena M. Kaftanovskaya, Carmen Manresa, Agustín M. Barbara, Robert J. Poppiti, Yingchun Tan, and Alexander I. Agoulnik
Constitutive Notch Signaling Causes Abnormal Development of the Oviducts, Abnormal Angiogenesis, and Cyst Formation in Mouse Female Reproductive Tract
Biol Reprod March 2016 94 (3) 67, 1-12; published ahead of print February 3, 2016, doi:10.1095/biolreprod.115.134569
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)
- Summary:** Activation of Notch signaling causes abnormal development of the oviducts, abnormal angiogenesis, and cyst formation in mouse female reproductive tract.
- Qiwei Yang, Sangeeta Nair, Archana Laknaur, Nahed Ismail, Michael P. Diamond, and Ayman Al-Hendy
The Polycomb Group Protein EZH2 Impairs DNA Damage Repair Gene Expression in Human Uterine Fibroids
Biol Reprod March 2016 94 (3) 69, 1-15; published ahead of print February 17, 2016, doi:10.1095/biolreprod.115.134924
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)
- Summary:** Histone methylation may provide novel therapeutic targets for the medical treatment of women with symptomatic uterine fibroids.

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Gamete Biology

- Claudia M. Sosa, M. Natalia Zanetti, Cristian A. Pocognoni, and Luis S. Mayorga
Acrosomal Swelling Is Triggered by cAMP Downstream of the Opening of Store-Operated Calcium Channels During Acrosomal Exocytosis in Human Sperm
Biol Reprod March 2016 94 (3) 57, 1-9; published ahead of print January 20, 2016, doi:10.1095/biolreprod.115.133231
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)
Summary: Acrosomal swelling is a required step of the acrosome reaction in human sperm and is triggered by a signaling pathway that involves calcium and cAMP.
- Ana Romarowski, Claudia Sánchez-Cárdenas, Héctor V. Ramírez-Gómez, Lis del C. Puga Molina, Claudia L. Treviño, Arturo Hernández-Cruz, Alberto Darszon,
A Specific Transitory Increase in Intracellular Calcium Induced by Progesterone Promotes Acrosomal Exocytosis in Mouse Sperm
Biol Reprod March 2016 94 (3) 63, 1-12; published ahead of print January 27, 2016, doi:10.1095/biolreprod.115.136085
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)
Summary: Only a specific transitory increase in intracellular calcium originated in the sperm head in response to progesterone promotes the initiation of acrosomal exocytosis.
- Burak Ozkosem, Sheldon I. Feinstein, Aron B. Fisher, and Cristian O'Flaherty
Absence of Peroxiredoxin 6 Amplifies the Effect of Oxidant Stress on Mobility and SCSA/CMA3 Defined Chromatin Quality and Impairs Fertilizing Ability of Mouse Spermatozoa
Biol Reprod March 2016 94 (3) 68, 1-10; published ahead of print January 20, 2016, doi:10.1095/biolreprod.115.137646
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)
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Summary: The absence of peroxiredoxin 6 promotes an oxidative stress that affects fertility by impairing motility, chromatin structure quality, and capacitation of mouse spermatozoa.

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Male Reproductive Tract

- Marjorie Whitfield, Aurélia Ouvrier, Rémi Cadet, Christelle Damon-Soubeyrand, Rachel Guiton, Laurent Janny, Ayhan Kocer, Geoffroy Marceau, Hanae Pons-R
Liver X Receptors (LXRs) Alpha and Beta Play Distinct Roles in the Mouse Epididymis
Biol Reprod March 2016 94 (3) 55, 1-11; published ahead of print January 20, 2016, doi:10.1095/biolreprod.115.133538
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)
Summary: LXRalpha and LXRbeta share some functional redundancy but also regulate specific aspects of mouse epididymal physiology.
- Lijing Cheng, Qiaoyuan Chen, Weiwei Zhu, Han Wu, Qing Wang, Lili Shi, Xiang Zhao, and Daishu Han
Toll-like Receptors 4 and 5 Cooperatively Initiate the Innate Immune Responses to Uropathogenic *Escherichia coli* Infection in Mouse Epididymal Epithelial Cells
Biol Reprod March 2016 94 (3) 58, 1-11; published ahead of print January 27, 2016, doi:10.1095/biolreprod.115.136580
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)
Summary: Uropathogenic *Escherichia coli* (UPEC) infection induces innate immune responses in mouse epididymal epithelial cells (EECs) through the activation of Toll-like receptors 4 and 5, suggesting that EECs should be involved in the epididymal defense against UPEC.

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Mechanisms of Hormone Action

- Chia-Yi Hsu, Tsung-Hua Hsieh, Cheng-Fang Tsai, Hung-Sheng Chen, Peir-In Liang, Ya-Ling Hsu, and Eing-Mei Tsai
Synthetic Steroid Hormones Regulated Cell Proliferation Through MicroRNA-34a-5p in Human Ovarian Endometrioma
Biol Reprod March 2016 94 (3) 60, 1-10; published ahead of print January 27, 2016, doi:10.1095/biolreprod.115.133330
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)
Summary: Several miRNAs are regulated by synthetic steroid hormones in ovarian endometrioma, including miR-34a-5p whose function could contribute to aberrant cell proliferation, leading to endometriosis development.

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Ovary

- Maxime Reverchon, Christelle Rame, Audrey Bunel, Wenyong Chen, Pascal Froment, and Joëlle Dupont
VISFATIN (NAMPT) Improves In Vitro IGF1-Induced Steroidogenesis and IGF1 Receptor Signaling Through SIRT1 in

Bovine Granulosa Cells

Biol Reprod March 2016 94 (3) 54, 1-13; published ahead of print January 20, 2016, doi:10.1095/biolreprod.115.134650

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: In vitro analysis of bovine granulosa cells shows that the adipokine, VISFATIN increases STAR protein, steroidogenesis, and IGF1 receptor signaling through the deacetylase SIRT1.

- Courtney Waite, Rachel Mejia, and Mario Ascoli

Gq/11-Dependent Changes in the Murine Ovarian Transcriptome at the End of Gestation

Biol Reprod March 2016 94 (3) 62, 1-12; published ahead of print February 3, 2016, doi:10.1095/biolreprod.115.136952

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: We have identified and characterized the expression of ovarian genes that increase or decrease at the end of gestation in a Gq/11-dependent fashion.

- Katsueki Ogiwara and Takayuki Takahashi

A Dual Role for Melatonin in Medaka Ovulation: Ensuring Prostaglandin Synthesis and Actin Cytoskeleton Rearrangement in Follicular Cells

Biol Reprod March 2016 94 (3) 64, 1-15; published ahead of print February 10, 2016, doi:10.1095/biolreprod.115.133827

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: Melatonin ensures prostaglandin E₂ synthesis throughout the spawning cycle and induces actin cytoskeleton rearrangement in the preovulatory follicle cells during ovulation in medaka.

- Samar W. Maalouf, Courtney L. Smith, and Joy L. Pate

Changes in MicroRNA Expression During Maturation of the Bovine Corpus Luteum: Regulation of Luteal Cell Proliferation and Function by MicroRNA-34a

Biol Reprod March 2016 94 (3) 71, 1-14; published ahead of print February 10, 2016, doi:10.1095/biolreprod.115.135053

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: MiR-34a targets Notch1 and YY1, both involved in proliferation and steroidogenesis, to decrease luteal cell proliferation and increase progesterone production.

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Pregnancy

- Kirsten R. Palmer, Stephen Tong, Laura Tuohey, Ping Cannon, Louie Ye, Natalie J. Hannan, Fiona C. Brownfoot, Sebastián E. Illanes, and Tu'uhevaha J. Kaitu

Jumonji Domain Containing Protein 6 Is Decreased in Human Preeclamptic Placentas and Regulates sFLT-1 Splice Variant Production

Biol Reprod March 2016 94 (3) 59, 1-9; published ahead of print January 27, 2016, doi:10.1095/biolreprod.115.134460

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: Oxygen-sensing molecule Jmjd6 is significantly reduced in preeclamptic placenta and under hypoxia, resulting in elevated splicing toward sFLT-1 variant mRNA production and subsequent sFLT-1 secretion.

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Reproductive Technology

- Roberta Machado Ferreira, Marcos Roberto Chiaratti, Carolina Habermann Macabelli, Carlos Alberto Rodrigues, Márcio Leão Ferraz, Yeda Fumie Watanabe, Lav

The Infertility of Repeat-Breeder Cows During Summer Is Associated with Decreased Mitochondrial DNA and Increased Expression of Mitochondrial and Apoptotic Genes in Oocytes

Biol Reprod March 2016 94 (3) 66, 1-10; published ahead of print February 3, 2016, doi:10.1095/biolreprod.115.133017

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: Oocytes from repeat-breeder cows show a reduction in mitochondrial DNA copy number in summer, with simultaneous increases in mitochondria- and apoptosis-related gene expression, suggesting compensatory and causative effects on their low developmental competence.

- Ling Zhang, Wenqian Xiong, Yao Xiong, Hengwei Liu, Na Li, Yu Du, and Yi Liu

Intracellular Wnt/Beta-Catenin Signaling Underlying 17beta-Estradiol-Induced Matrix Metalloproteinase 9 Expression in Human Endometriosis

Biol Reprod March 2016 94 (3) 70, 1-10; published ahead of print February 17, 2016, doi:10.1095/biolreprod.115.135574

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#)

Summary: Wnt/beta-catenin pathway activates the expression of

MMP9 in the presence of E₂, and this interaction plays an important role in the pathogenesis of endometriosis.

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Testis

- Yuan-Li Wang, Dan Li, Hong-Dan Yang, Lin He, Wen-Juan Sun, Ze-Lin Duan, and Qun Wang

The E3 Ubiquitin Ligase CRL4 Regulates Proliferation and Progression Through Meiosis in Chinese Mitten Crab *Eriocheir sinensis*

Biol Reprod March 2016 94 (3) 65, 1-14; published ahead of print February 10, 2016, doi:10.1095/biolreprod.115.137661

[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)

Summary: The E3 ubiquitin ligase Cullin4 (Cul4) has an essential function in early testis development associated with the sophisticated regulatory mechanism of spermatogenesis in the Chinese mitten crab *Eriocheir sinensis*.

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Additions and Corrections

ADDITIONS AND CORRECTIONS

Biol Reprod March 2016 94 (3) 61, 1-1; published ahead of print January 27, 2016, doi:10.1095/biolreprod.116.138917

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