

# Table of Contents

June 1, 2015; 92 (6)

[Clear](#)

[Get All Checked Abstracts](#)

---

## World of Reproductive Biology

Charlotte Schubert

### **Making Females Male with Dmrt1**

Biol Reprod June 2015 92 (6) 134, 1-1; published ahead of print March 4, 2015, doi:10.1095/biolreprod.115.129601

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

Charlotte Schubert

### **Benefits of Menopause: Good Fishing**

Biol Reprod June 2015 92 (6) 135, 1-1; published ahead of print March 11, 2015, doi:10.1095/biolreprod.115.129833

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

Charlotte Schubert

### **Polarity and the Placenta**

Biol Reprod June 2015 92 (6) 136, 1-1; published ahead of print March 18, 2015, doi:10.1095/biolreprod.115.130054

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

Charlotte Schubert

### **Pops Gets the Polycomb**

Biol Reprod June 2015 92 (6) 137, 1-1; published ahead of print March 25, 2015, doi:10.1095/biolreprod.115.130229

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

---

## Minireview

- Levent Mutlu, Demetra Hufnagel, and Hugh S. Taylor

### **The Endometrium as a Source of Mesenchymal Stem Cells for Regenerative Medicine**

Biol Reprod June 2015 92 (6) 138, 1-11; published ahead of print April 22, 2015, doi:10.1095/biolreprod.114.126771

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

**Summary:** This review summarizes the current understanding of endometrial stem cells and their therapeutic potential in regenerative medicine.

- Chanchao Lorthongpanich and Surapol Issaragrisil

### **Emerging Role of the Hippo Signaling Pathway in Position Sensing and Lineage Specification in Mammalian Preimplantation Embryos**

Biol Reprod June 2015 92 (6) 143, 1-10; published ahead of print May 6, 2015, doi:10.1095/biolreprod.114.127803

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

**Summary:** Hippo signaling plays a crucial role in the first lineage differentiation of mouse preimplantation embryos.

- Jeremy G. Thompson, Hannah M. Brown, Karen L. Kind, and Darryl L. Russell

### **The Ovarian Antral Follicle: Living on the Edge of Hypoxia or Not?**

Biol Reprod June 2015 92 (6) 153, 1-6; published ahead of print May 13, 2015, doi:10.1095/biolreprod.115.128660

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

**Summary:** Hemoglobin may play a role in preventing hypoxia in oocytes within antral follicles, while also facilitating luteinization following the LH surge.

[Clear](#)

[Get All Checked Abstracts](#)

---

## Research Articles

### Embryo

- Veronica Maillou, Peadar Ó Gaora, Niamh Forde, Urban Besenfelder, Vitezslav Havlicek, Gregory W. Burns, Thomas E. Spencer, Alfonso Gutierrez-Adan, Patric

### **Oviduct-Embryo Interactions in Cattle: Two-Way Traffic or a One-Way Street?**

Biol Reprod June 2015 92 (6) 144, 1-8; published ahead of print April 29, 2015, doi:10.1095/biolreprod.115.127969

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

**Summary:** The presence of multiple embryos in the bovine oviduct elicits a transcriptomic response from the oviduct epithelium that was not detectable when only one embryo was present, possibly due to the localized nature of any putative embryo-derived signal.

- Ana Kassens, Eva Held, Dessie Salilew-Wondim, Harald Sieme, Christine Wrenzycki, Dawit Tesfaye, Karl Schellander, and Michael Hoelker

### **Intrafollicular Oocyte Transfer (IFOT) of Abattoir-Derived and In Vitro-Matured Oocytes Results in Viable Blastocysts and Birth of Healthy Calves**

Biol Reprod June 2015 92 (6) 150, 1-14; published ahead of print April 29, 2015, doi:10.1095/biolreprod.114.124883

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

**Summary:** Intrafollicular transfer of in vitro-matured oocytes derived from slaughterhouse ovaries into a dominant follicle is a feasible technique to generate bovine blastocysts closely resembling in vivo-derived ones with respect to lipid content, cryosurvival, and term developmental capacity.

[Clear](#) [Get All Checked Abstracts](#)

#### **Female Reproductive Tract**

- Melissa E. Heard, Michael C. Velarde, Linda C. Giudice, Frank A. Simmen, and Rosalia C.M. Simmen  
**Krüppel-Like Factor 13 Deficiency in Uterine Endometrial Cells Contributes to Defective Steroid Hormone Receptor Signaling but Not Lesion Establishment in a Mouse Model of Endometriosis**  
Biol Reprod June 2015 92 (6) 140, 1-9; published ahead of print April 22, 2015, doi:10.1095/biolreprod.115.130260  
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)  
**Summary:** In a murine model, Krüppel-like factor 13 null mutation in uterine endometrial cells alters steroid hormone receptor signaling without promoting lesion establishment.
  
- Kelsi N. Dodds, Vasiliki Staikopoulos, and Elizabeth A.H. Beckett  
**Uterine Contractility in the Nonpregnant Mouse: Changes During the Estrous Cycle and Effects of Chloride Channel Blockade**  
Biol Reprod June 2015 92 (6) 141, 1-15; published ahead of print April 29, 2015, doi:10.1095/biolreprod.115.129809  
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)  
**Summary:** Contractions of the non-pregnant mouse uterus display characteristic patterns throughout the estrous cycle, and their generation likely involves Cl<sup>-</sup> channels but not Kit-expressing pacemaker cells.
  
- Natasha Whenham, Tian Chee Lu, Maisarah B.M. Maidin, Peter W. Wilson, Maureen M. Bain, M. Lynn Stevenson, Mark P. Stevens, Michael R. Bedford, and I  
**Ovodefensins, an Oviduct-Specific Antimicrobial Gene Family, Have Evolved in Birds and Reptiles to Protect the Egg by Both Sequence and Intra-Six-Cysteine Sequence Motif Spacing**  
Biol Reprod June 2015 92 (6) 154, 1-13; published ahead of print May 13, 2015, doi:10.1095/biolreprod.114.126839  
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)  
**Summary:** Oviduct-specific antimicrobial gene family, the ovodefensins, has evolved both their sequence and the amino acid spacing between a conserved cysteine sequence motif in birds and reptiles.

[Clear](#) [Get All Checked Abstracts](#)

#### **Gamete Biology**

- Lauren A. McGinnis, Hyo J. Lee, Douglas N. Robinson, and Janice P. Evans  
**MAPK3/1 (ERK1/2) and Myosin Light Chain Kinase in Mammalian Eggs Affect Myosin-II Function and Regulate the Metaphase II State in a Calcium- and Zinc-Dependent Manner**  
Biol Reprod June 2015 92 (6) 146, 1-14; published ahead of print April 22, 2015, doi:10.1095/biolreprod.114.127027  
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)  
**Summary:** Mitogen-activated kinases (MAPK) 3/1 and myosin light chain kinase affect myosin-II function and metaphase II arrest in eggs.
  
- Muhammad Aamir Aslam, Dirkjan Schokker, Ton G.G. Groothuis, Agnes A.C. de Wit, Mari A. Smits, and Henri Woelders  
**Association of Egg Mass and Egg Sex: Gene Expression Analysis from Maternal RNA in the Germinal Disc Region of Layer Hens (*Gallus gallus*)**  
Biol Reprod June 2015 92 (6) 157, 1-9; published ahead of print May 13, 2015, doi:10.1095/biolreprod.114.123380  
[Abstract](#) [Full Text](#) [Full Text \(PDF\)](#) [Supplemental Data](#)  
**Summary:** Genome-wide gene expression analysis point to involvement of differential enrichment of cellular processes related to mitotic/meiotic apparatus and chromosomal movement in F1 preovulatory follicles and mitotic drive in regulating sex ratio in chicken.

[Clear](#) [Get All Checked Abstracts](#)

#### **Immunology**

- Laura L. Healy, James G. Cronin, and I. Martin Sheldon

**Polarized Epithelial Cells Secrete Interleukin 6 Apically in the Bovine Endometrium**

Biol Reprod June 2015 92 (6) 151, 1-12; published ahead of print March 4, 2015, doi:10.1095/biolreprod.115.127936

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

[OPEN ACCESS ARTICLE](#)

**Summary:** Endometrial epithelial cells secrete chemokines to attract immune cells, when faced with infection or damage and secrete cytokine IL6 apically, so that immune cells are only exposed to IL6 in the uterine lumen.

**Male Reproductive Tract**

- Shuai Zhang, Yan Zhang, Chunhong Yang, Wei Zhang, Zhihua Ju, Xiuge Wang, Qiang Jiang, Yan Sun, Jinming Huang, Jifeng Zhong, and Changfa Wang

**TNP1 Functional SNPs in bta-miR-532 and bta-miR-204 Target Sites Are Associated with Semen Quality Traits in Chinese Holstein Bulls**

Biol Reprod June 2015 92 (6) 139, 1-10; published ahead of print April 22, 2015, doi:10.1095/biolreprod.114.126672

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

**Summary:** Functional SNPs in bta-miR-532 and bta-miR-204 target sites influence semen quality traits in Chinese Holstein bulls.

**Ovary**

- Agnieszka Rak, Eliza Drwal, Anna Karpeta, and Ewa Ł. Gregoraszczyk  
**Regulatory Role of Gonadotropins and Local Factors Produced by Ovarian Follicles on In Vitro Resistin Expression and Action on Porcine Follicular Steroidogenesis**

Biol Reprod June 2015 92 (6) 142, 1-14; published ahead of print April 29, 2015, doi:10.1095/biolreprod.115.128611

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

**Summary:** Gonadotropins, IGF1, and steroids are involved in the regulation of resistin expression and steroidogenic action in ovarian follicles.

- Jackson Nteeba, M. Victoria Sanz-Fernandez, Robert P. Rhoads, Lance H. Baumgard, Jason W. Ross, and Aileen F. Keating  
**Heat Stress Alters Ovarian Insulin-Mediated Phosphatidylinositol-3 Kinase and Steroidogenic Signaling in Gilt Ovaries**

Biol Reprod June 2015 92 (6) 148, 1-8; published ahead of print April 29, 2015, doi:10.1095/biolreprod.114.126714

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

**Summary:** Hyperthermia potentially induces seasonal infertility in swine by altering ovarian PI3 kinase and steroidogenic signaling.

**Pregnancy**

- Benjamin B. Green, David A. Armstrong, Corina Lesseur, Alison G. Paquette, Dylan J. Guerin, Lauren E. Kwan, and Carmen J. Marsit  
**The Role of Placental 11-Beta Hydroxysteroid Dehydrogenase Type 1 and Type 2 Methylation on Gene Expression and Infant Birth Weight**

Biol Reprod June 2015 92 (6) 149, 1-8; published ahead of print March 18, 2015, doi:10.1095/biolreprod.115.128066

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

**Summary:** The methylation and expression of *HSD11B* types 1 and 2, placental mediators of infant cortisol exposure, influence infant birth weight.

- Amar S. More, Jay S. Mishra, Gary D.V. Hankins, Chandra Yallampalli, and Kunju Sathishkumar  
**Enalapril Normalizes Endothelium-Derived Hyperpolarizing Factor-Mediated Relaxation in Mesenteric Artery of Adult Hypertensive Rats Prenatally Exposed to Testosterone**

Biol Reprod June 2015 92 (6) 155, 1-8; published ahead of print May 13, 2015, doi:10.1095/biolreprod.115.130468

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

**Summary:** Enalapril treatment improves EDHF function via restoration of *Kcnn3* channel expression and activity in mesenteric arteries of hypertensive rats, providing a molecular mechanism linking RAS blockade and improvement of endothelial function and blood pressure.

- Niamh Forde, Fuller W. Bazer, Thomas E. Spencer, and Pat Lonergan  
**'Conceptualizing' the Endometrium: Identification of Conceptus-Derived Proteins During Early Pregnancy in Cattle**

Biol Reprod June 2015 92 (6) 156, 1-13; published ahead of print May 6, 2015, doi:10.1095/biolreprod.115.129296

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

**Summary:** Proteins only identified in uterine luminal fluid from pregnant heifers on Day 16 of pregnancy are produced by Day 16 conceptuses following short-term culture in vitro and may facilitate interactions between the conceptus and the endometrium during early pregnancy in cattle.

[Clear](#) [Get All Checked Abstracts](#)

#### Reproductive Technology

- Hai-Lan Ma, Fei Gong, Yi Tang, Xihong Li, Xiaofeng Li, Xiaoyi Yang, and Guangxiu Lu

**Inhibition of Endometrial *Tiam1/Rac1* Signals Induced by miR-22 Up-Regulation Leads to the Failure of Embryo Implantation During the Implantation Window in Pregnant Mice**

Biol Reprod June 2015 92 (6) 152, 1-13; published ahead of print April 29, 2015, doi:10.1095/biolreprod.115.128603

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

**Summary:** Endometrial *Tiam1/Rac1* was down-regulated along with miR-22 up-regulation in women with RIF during embryo implantation window that may contribute to the embryo implantation failure.

- Guan-Chung Wu, Hau-Wen Li, Jia-Wun Luo, Chi Chen, and Ching-Fong Chang

**The Potential Role of Amh to Prevent Ectopic Female Development in Testicular Tissue of the Protandrous Black Porgy, *Acanthopagrus schlegelii***

Biol Reprod June 2015 92 (6) 158, 1-13; published ahead of print April 8, 2015, doi:10.1095/biolreprod.114.126953

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

**Summary:** Black porgy may prevent ectopic female growth in the testes and maintain male function of the digonic gonad (testes and ovary separated by connective tissue) through Amh action.

[Clear](#) [Get All Checked Abstracts](#)

#### Testis

- Kathryn S. McClelland, Katrina Bell, Christian Larney, Vincent R. Harley, Andrew H. Sinclair, Alicia Oshlack, Peter Koopman, and Josephine Bowles

**Purification and Transcriptomic Analysis of Mouse Fetal Leydig Cells Reveals Candidate Genes for Specification of Gonadal Steroidogenic Cells**

Biol Reprod June 2015 92 (6) 145, 1-17; published ahead of print April 8, 2015, doi:10.1095/biolreprod.115.128918

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

**Summary:** RNA-seq analysis of enriched fetal Leydig, nonsteroidogenic, and Sertoli cell populations in the fetal XY gonad: neuroactive genes identified as candidates for fetal Leydig cell specification.

- Hiroko Morimoto, Mito Kanatsu-Shinohara, and Takashi Shinohara

**ROS-Generating Oxidase *Nox3* Regulates the Self-Renewal of Mouse Spermatogonial Stem Cells**

Biol Reprod June 2015 92 (6) 147, 1-10; published ahead of print May 6, 2015, doi:10.1095/biolreprod.114.127647

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

**Summary:** ROS-generating oxidase *Nox3* regulates spermatogonial stem cell self-renewal.

[Clear](#) [Get All Checked Abstracts](#)