
World of Reproductive Biology

Katie Gerhardt

Mother's Gut Arms Offspring

Biol Reprod July 2016 95 (1) 1, 1-1; published ahead of print May 25, 2016, doi:10.1095/biolreprod.116.142240

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

Katie Gerhardt

The Will of the Human Embryo

Biol Reprod July 2016 95 (1) 2, 1-1; published ahead of print June 1, 2016, doi:10.1095/biolreprod.116.142364

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

Katie Gerhardt

Progesterone and Endocannabinoid Interaction Alters Sperm Activation

Biol Reprod July 2016 95 (1) 9, 1-1; published ahead of print June 8, 2016, doi:10.1095/biolreprod.116.142554

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

Katie Gerhardt

The Key to Understanding Twins

Biol Reprod July 2016 95 (1) 23, 1-1; published ahead of print June 15, 2016, doi:10.1095/biolreprod.116.142737

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

Editorial

Francesco J. DeMayo and Thomas E. Spencer

From the Editors: Education in Reproductive Biology

Biol Reprod July 2016 95 (1) 26, 1-1; published ahead of print June 22, 2016, doi:10.1095/biolreprod.116.142745

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

Minireview

- Raquel F. Domeniconi, Ana Cláudia Ferreira Souza, Bingfang Xu, Angela M. Washington, and Barry T. Hinton

Is the Epididymis a Series of Organs Placed Side By Side?

Biol Reprod July 2016 95 (1) 10, 1-8; published ahead of print April 27, 2016, doi:10.1095/biolreprod.116.138768

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

Summary: The epididymis can be considered to be a series of organs joined together in view of the multiple segment arrangement with each having its own unique and overlapping gene and protein expression repertoire, and regulatory mechanisms.

- Toshiya Nishimura and Minoru Tanaka

The Mechanism of Germline Sex Determination in Vertebrates

Biol Reprod July 2016 95 (1) 30, 1-6; published ahead of print March 23, 2016, doi:10.1095/biolreprod.115.138271

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

Summary: Expression and functional analyses of *foxl3* in the teleost fish, medaka (*Oryzias latipes*), provide insights into the mechanism of germline sex determination in vertebrates.

[Clear](#)

[Get All Checked Abstracts](#)

Research Articles

Embryo

- Yeong Seok Oh, Won Heum Nah, Bomi Choi, Seok Hyun Kim, and Myung Chan Gye

Coxsackievirus and Adenovirus Receptor, a Tight Junction Protein, in Peri-Implantation Mouse Embryos

Biol Reprod July 2016 95 (1) 5, 1-11; published ahead of print May 25, 2016, doi:10.1095/biolreprod.115.138099

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

Summary: CAR mediates cell adhesion and development of tight junction of trophectoderm in preimplantation embryos and may participate in the separation of epiblast from the blastocoel and the development of proamniotic cavity in postimplantation embryos.

- Jane C. Fenelon, Arnab Banerjee, Pavine Lefèvre, Fanélie Gratian, and Bruce D. Murphy

Polyamine-Mediated Effects of Prolactin Dictate Emergence from Mink Obligate Embryonic Diapause

Biol Reprod July 2016 95 (1) 6, 1-13; published ahead of print May 25, 2016, doi:10.1095/biolreprod.116.139204

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

Summary: This is the first demonstration of induction of escape of the embryo from obligate diapause in vitro.

- Siyu Bao, Tianjie Li, Xiaoyu Long, Jinjuan Zhang, Hongcui Zhao, Yun Ren, Yue Zhao, Rong Li, Tao Tan, Yang Yu, and Jie Qiao

Chemokine Receptor Type 4 Regulates Migration and Invasion of Trophectoderm Cell in the Human Blastocyst

Biol Reprod July 2016 95 (1) 21, 1-9; published ahead of print May 4, 2016, doi:10.1095/biolreprod.116.138826

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

Summary: Expression of chemokine receptor 4 (*CXCR4*) in human blastocysts can regulate the migration and invasion of trophoctoderm cell via the Rho signaling pathway and is positively related to embryo implantation.

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

Female Reproductive Tract

- Jung-Yoon Yoo, Jae-Wook Jeong, Asgerally T. Fazleabas, Chandrakant Tayade, Steven L. Young, and Bruce A. Lessey

Protein Inhibitor of Activated STAT3 (PIAS3) Is Down-Regulated in Eutopic Endometrium of Women with Endometriosis

Biol Reprod July 2016 95 (1) 11, 1-7; published ahead of print May 25, 2016, doi:10.1095/biolreprod.115.137158

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

Summary: PIAS3 is reduced in women with endometriosis, and its expression is regulated by interferon- γ through CXCL10 in human endometrium.

- Giulia Tebaldi, Sarah Jacca, Barbara Montanini, Emanuele Capra, Alfonso Rosamilia, Arianna Sala, Alessandra Stella, Bianca Castiglioni, Simone Ottonello, a

Virus-Mediated Metalloproteinase 1 Induction Revealed by Transcriptome Profiling of Bovine Herpesvirus 4-Infected Bovine Endometrial Stromal Cells

Biol Reprod July 2016 95 (1) 12, 1-14; published ahead of print June 8, 2016, doi:10.1095/biolreprod.116.139097

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

Summary: MMPs upregulation in bovine herpesvirus 4 infected endometrial stromal cells as revealed by transcriptome profiling.

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

Gamete Biology

- Kristina Kovacovicova, Thuraya Awadova, Pavel Mikel, and Martin Anger

In Vitro Maturation of Mouse Oocytes Increases the Level of Kif11/Eg5 on Meiosis II Spindles

Biol Reprod July 2016 95 (1) 18, 1-9; published ahead of print May 4, 2016, doi:10.1095/biolreprod.115.133900

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

Summary: In vitro maturation of mouse oocytes causes increased accumulation of kinesin Kif11/Eg5 on meiosis II spindle, which makes them more sensitive to specific inhibitors.

- Robin H. Powell, Jason Galiguis, Monica N. Biancardi, C. Earle Pope, Stanley P. Leibo, Guoshun Wang, and Martha C. Gómez

Phenotypic and Molecular Characterization of Domestic Cat (*Felis catus*) Spermatogonial Stem Cells

Biol Reprod July 2016 95 (1) 20, 1-10; published ahead of print June 8, 2016, doi:10.1095/biolreprod.115.134635

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

Summary: Pluripotent surface markers SSEA-1, SSEA-4, TRA-1-60, and TRA-1-81 are found to be more reliable for isolating cat spermatogonia, and cat spermatogonial stem cells are likely a subpopulation of the SSEA-4⁺ spermatogonia cells.

- María Varea-Sánchez, Maximiliano Tourmente, Markus Bastir, and Eduardo R.S. Roldan

Unraveling the Sperm Bauplan: Relationships Between Sperm Head Morphology and Sperm Function in Rodents

Biol Reprod July 2016 95 (1) 25, 1-9; published ahead of print June 8, 2016, doi:10.1095/biolreprod.115.138008

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

Summary: Sperm competition drives changes in sperm head phenotype, with modifications in shape, curvature, and length of the hook, which in turn influences sperm swimming velocity.

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

Male Reproductive Tract

- Bingfang Xu, Angela M. Washington, and Barry T. Hinton

Initial Segment Differentiation Begins During a Critical Window and Is Dependent upon Lumicrine Factors and SRC Proto-Oncogene (SRC) in the Mouse

Biol Reprod July 2016 95 (1) 15, 1-11; published ahead of print June 8, 2016, doi:10.1095/biolreprod.116.138388

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

Summary: Lumicrine factors regulate SRC during a critical window of differentiation of the initial segment, which in turn is important for male fertility.

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

Ovary

- Kazuhisa Hashiba, Junko Nio-Kobayashi, Masahiro Sano, Megumi Maeda, Yoshinobu Kimura, Yuki Yamamoto, Koji Kimura, and Kiyoshi Okuda

Possible Contribution of Alpha2,6-Sialylation to Luteolysis in Cows by Inhibiting the Luteotropic Effects of Galectin-1

Biol Reprod July 2016 95 (1) 17, 1-8; published ahead of print June 8, 2016, doi:10.1095/biolreprod.116.140194

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

Summary: The alpha2,6-sialylation stimulated by prostaglandin F2alpha inhibits the interaction between galectin-1 and glycan, contributing to luteolysis by reducing the galectin-1 effect on luteal cell viability in cattle.

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

Pregnancy

- You-Lin Tain, Chien-Ning Hsu, Chien-Te Lee, Yu-Ju Lin, and Ching-Chou Tsai

N-Acetylcysteine Prevents Programmed Hypertension in Male Rat Offspring Born to Suramin-Treated Mothers

Biol Reprod July 2016 95 (1) 8, 1-8; published ahead of print June 1, 2016, doi:10.1095/biolreprod.116.139766

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

Summary: NAC therapy to pregnant women with preeclampsia can prevent programmed hypertension.

- Tina Tu-Thu Ngoc Nguyen, Oksana Shynlova, and Stephen J. Lye

Matrix Metalloproteinase Expression in the Rat Myometrium During Pregnancy, Term Labor, and Postpartum

Biol Reprod July 2016 95 (1) 24, 1-14; published ahead of print June 1, 2016, doi:10.1095/biolreprod.115.138248

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

Summary: Using an in vivo rat model of pregnancy, the expression profile and cellular/tissue localization of multiple MMP genes and proteins have been characterized in the uterus throughout gestation, during term labor, and postpartum involution period.

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

Reproductive Technology

- Prasanna K. Kallingappa, Pavla M. Turner, Michael P. Eichenlaub, Andria L. Green, Fleur C. Oback, Alice M. Chibnall, David N. Wells, and Björn Oback

Quiescence Loosens Epigenetic Constraints in Bovine Somatic Cells and Improves Their Reprogramming into Totipotency

Biol Reprod July 2016 95 (1) 16, 1-10; published ahead of print June 8, 2016, doi:10.1095/biolreprod.115.137109

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

Summary: Quiescence alters epigenetic modifications in somatic cells and improves their reprogramming into totipotency.

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

Special Papers

- Mario Ascoli, Dorianne Mebane, and Asgerally T. Fazleabas

Frontiers in Reproduction (FIR): An Assessment of Success

Biol Reprod July 2016 95 (1) 27, 1-6; published ahead of print June 22, 2016, doi:10.1095/biolreprod.116.140384

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

Summary: Our analysis of publicly available databases and the feedback from the participants show that FIR continues to have a significant positive impact worldwide on the training of successful reproductive scientists.

- Megan Castle, Charlotte Cleveland, Diana Gordon, Lynda Jones, Mary Zelinski, Patricia Winter, Jeffrey Chang, Ericka Senegar-Mitchell, Christos Coutifaris, Ja

Reproductive Science for High School Students: A Shared Curriculum Model to Enhance Student Success

Biol Reprod July 2016 95 (1) 28, 1-4; published ahead of print June 22, 2016, doi:10.1095/biolreprod.116.139998

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

Summary: A reproducible, university-led high school academy for reproductive health education can help decrease knowledge gaps in

reproductive health by contextualizing complex topics in an interactive, hands-on setting.

- Megan Castle, Laura Kick, Heather Haseley, Harlan Wallach, and Teresa K. Woodruff

Introduction to Reproduction: Online Education for the Millennial Learner

Biol Reprod July 2016 95 (1) 29, 1-3; published ahead of print June 22, 2016, doi:10.1095/biolreprod.116.140004

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

Summary: Developed by the Women's Health Research Institute at Northwestern University, *Introduction to Reproduction* is a Massive Open Online Course that provides accurate and accessible reproductive health education to the millennial student.

Testis

- Elisabeth Sabine Klaus, Nicola Helena Gonzalez, Martin Bergmann, Marek Bartkuhn, Wolfgang Weidner, Sabine Kliesch, and Christina Rathke

Murine and Human Spermatids Are Characterized by Numerous, Newly Synthesized and Differentially Expressed Transcription Factors and Bromodomain-Containing Proteins

Biol Reprod July 2016 95 (1) 4, 1-12; published ahead of print May 11, 2016, doi:10.1095/biolreprod.115.137620

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

Summary: Haploid male germ cells use common and specific features to open the chromatin first for transcription and subsequently for the histone-to-protamine transition.

- Uma Chandran, Sivankutty Indu, Anil T.R. Kumar, A.N. Devi, Irfan Khan, Diwas Srivastava, and Pradeep G. Kumar

Expression of *Cnnm1* and Its Association with Stemness, Cell Cycle, and Differentiation in Spermatogenic Cells in Mouse Testis

Biol Reprod July 2016 95 (1) 7, 1-12; published ahead of print June 1, 2016, doi:10.1095/biolreprod.115.130369

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

Summary: *Cnnm1* is expressed in spermatogonial stem cells (SSC) in mouse testis, and its downregulation by retinoic acid is associated with SSC differentiation.

- Alexandre Boyer, Meggie Girard, Dayananda S. Thimmanahalli, Adrien Levasseur, Christophe Céleste, Marilène Paquet, Rajesha Duggavathi, and Derek Boerl

mTOR Regulates Gap Junction Alpha-1 Protein Trafficking in Sertoli Cells and Is Required for the Maintenance of Spermatogenesis in Mice

Biol Reprod July 2016 95 (1) 13, 1-11; published ahead of print June 8, 2016, doi:10.1095/biolreprod.115.138016

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

Summary: mTOR regulates gap junction alpha-1 protein distribution in Sertoli cells and is necessary for progression through the pachytene spermatocyte stage.

- Melissa J. Oatley, Amy V. Kaucher, Qi-En Yang, Muhammad Salman Waqas, and Jon M. Oatley

Conditions for Long-Term Culture of Cattle Undifferentiated Spermatogonia

Biol Reprod July 2016 95 (1) 14, 1-10; published ahead of print June 1, 2016, doi:10.1095/biolreprod.116.139832

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

Summary: Methods that support primary populations of cattle undifferentiated spermatogonia in vitro using both feeder coculture and feeder-free formats are described.

- Qifan Zeng, Shikai Liu, Jun Yao, Yu Zhang, Zihao Yuan, Chen Jiang, Ailu Chen, Qiang Fu, Baofeng Su, Rex Dunham, and Zhanjiang Liu

Transcriptome Display During Testicular Differentiation of Channel Catfish (*Ictalurus punctatus*) as Revealed by RNA-Seq Analysis

Biol Reprod July 2016 95 (1) 19, 1-17; published ahead of print June 15, 2016, doi:10.1095/biolreprod.116.138818

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

Summary: Transcriptomic analyses of gonads during 90–110 days postfertilization provide clues on testicular differentiation in catfish.

Toxicology

- Anne Marie Downey, Barbara F. Hales, and Bernard Robaire

Zinc Transport Differs in Rat Spermatogenic Cell Types and Is Affected by Treatment with Cyclophosphamide

Biol Reprod July 2016 95 (1) 22, 1-12; published ahead of print June 8, 2016, doi:10.1095/biolreprod.116.140558

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

Summary: The expression of zinc transporters and zinc transport differs between rat pachytene spermatocytes and round spermatids and is affected by chronic treatment with cyclophosphamide.

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

Additions and Corrections

ADDITIONS AND CORRECTIONS

Biol Reprod July 2016 95 (1) 3, 1-1; published ahead of print May 25, 2016, doi:10.1095/biolreprod.116.141879

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