

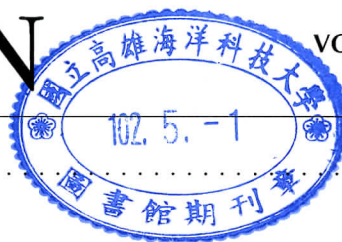
# BIOLOGY *of* REPRODUCTION

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Articles 1-27



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| <i>Charlotte Schubert</i>                  |           |

## Commentary

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| This month in <i>Biology of Reproduction</i> , Ma et al. describe the process of maternal mRNA degradation during mouse oocyte maturation. |            |

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| Maternal cholesterol is of great importance for development and growth of the fetus during early pregnancy.                               |            |

## Environment

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| In vivo atrazine inhibits GnRH pulse frequency in rat hypothalamic explants with no change in GnRH mRNA and protein levels.                                    |           |

## Female Reproductive Tract

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| Lactocrine signaling during the first two days of postnatal life dictates uterine gland genesis and patterns of endometrial development in the neonatal pig.  |            |
| <b>Seminal Plasma Induces Prostaglandin-Endoperoxide Synthase (PTGS) 2 Expression in Immortalized Human Vaginal Cells: Involvement of Semen Prostaglandin E<sub>2</sub> in PTGS2 Upregulation</b> ..... | Article 13 |
| <i>Theresa Joseph, Irina A. Zalenskaya, Lyn C. Sawyer, Neelima Chandra, and Gustavo F. Doncel</i>   |            |
| PGE <sub>2</sub> , abundantly present in seminal plasma, is involved in PTGS2 upregulation in vaginal epithelium.   |            |

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| MATER and cytoplasmic lattices are essential for meiotic acquisition, and their absence cause antral not-surrounded nucleolus oocytes developmental arrest at the two-cell stage.                         |            |
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| <i>Patricia Murphey, Derek J. McLean, C. Alex McMahan, Christi A. Walter, and John R. McCarrey</i>  |            |
| Germ cells maintain genetic integrity at a higher level (as evidenced by lower frequencies of point mutations) than somatic cells.  |            |
| <b>Maternally Recruited DCP1A and DCP2 Contribute to Messenger RNA Degradation During Oocyte Maturation and Genome Activation in Mouse</b> .....  | Article 11 |
| <i>Jun Ma, Matyas Flemr, Hynek Strnad, Petr Svoboda, and Richard M. Schultz</i>   |            |
| The RNA capping proteins, DCP1A and DCP2, are encoded by dormant maternal mRNAs that are recruited during maturation; inhibiting their recruitment impairs degradation of mRNAs during oocyte maturation. |            |

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| A bicarbonate-induced recruitment of radicals to the surface of capacitating sperm cells results in production of oxysterols and mediates sperm capacitation reverse sterol transport; membrane antioxidants block this process and inhibit in vitro fertilization. |            |
| <b>Immunology</b>   |            |
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| Differential regulation of lectin, galactosidase-binding soluble 9 ( <i>Lgals9</i> ) isoforms during normal and pathological pregnancies designates the <i>Lgals9</i> profile as a potential marker for adverse pregnancy outcomes.                                 |            |
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| Both estrogen receptors alpha and beta are expressed in the prostate of male and female gerbils, and they are influenced by the levels of androgens and estrogens.  |            |
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| <i>Niannian Chen, Yu Li, Wenjun Wang, Yun Ma, Dongzi Yang, and Qingxue Zhang</i>  |            |
| Vasoactive intestinal peptide (VIP), a neuropeptide released from the invading nerve fibers, regulates the rate at which primordial follicles leave the resting pool and begin developing.  |            |
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| <i>Kayoko Kogure, Kazuto Nakamura, Sadatomo Ikeda, Yoshikazu Kitahara, Toshio Nishimura, Masayuki Iwamune, and Takashi Minegishi</i>  |            |
| A novel mechanism of LH receptor expression by GRP78 plays important roles in the recovery of LH receptor after down-regulation.  |            |
| <b>EGF-Like Ligands Mediate Progesterone's Anti-Apoptotic Action on Macaque Granulosa Cells</b> . . . . .   | Article 18 |
| <i>Muraly Puttabyatappa, Rebecca S. Brogan, Catherine A. VandeVoort, and Charles L. Chaffin</i>   |            |
| Progesterone promotes expression of EGF-like ligands that maintain granulosa cell viability during corpus luteum formation.   |            |
| <b>Plasminogen Activator Inhibitor 1 RNA-Binding Protein Interacts with Progesterone Receptor Membrane Component 1 to Regulate Progesterone's Ability to Maintain the Viability of Spontaneously Immortalized Granulosa Cells and Rat Granulosa Cells</b> . . . . . | Article 20 |
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| Depleting plasminogen activator inhibitor 1 RNA-binding protein (PAIRBP1) or disrupting interaction with progesterone receptor membrane component 1 (PGRMC1) attenuates progesterone's antiapoptotic action.  |            |
| <b>The Ephrin Signaling Pathway Regulates Morphology and Adhesion of Mouse Granulosa Cells In Vitro</b> . . .   | Article 25 |
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| Ephrin ligands and Eph receptors are expressed in granulosa cells of small to large follicles in mice and regulate granulosa cell morphology and adhesion in vitro.   |            |
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| Genetic evidence that <i>Wnt6</i> is critical for normal stromal cell proliferation in mice suggests that there is differential regulation of the process of stromal cell proliferation relative to decidual transformation during early pregnancy.                 |            |

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| <b>Modulation of Cholesterol Transport by Insulin-Treated Gestational Diabetes Mellitus in Human Full-Term Placenta</b> .....   | Article 16 |
| <i>Evemie Dubé, Maude Ethier-Chiasson, and Julie Lafond</i>   |            |
| Gestational diabetes mellitus influences placental cholesterol transport and metabolism by affecting the expression of several key genes.   |            |
| <b>SIRT6 Is Decreased with Preterm Labor and Regulates Key Terminal Effector Pathways of Human Labor in Fetal Membranes</b> .....   | Article 17 |
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| Sirtuin 6 is down-regulated by preterm labor and bacterial endotoxin, and inhibition of SIRT6 results in the up-regulation of proinflammatory cytokines, prostaglandins, and proteases.   |            |
| <b>Synthetic Glucocorticoid Dexamethasone Inhibits Branching Morphogenesis in the Spiny Mouse Placenta</b> .....  | Article 26 |
| <i>Bree A. O'Connell, Karen M. Moritz, David W. Walker, and Hayley Dickinson</i>  |            |
| The genes that regulate branching in the spiny mouse placenta differ between males and females; a brief glucocorticoid pulse at the time of peak branching in the placenta induces changes in gene expression influenced by the sex of the fetus. |            |
| <br><b>Reproductive Technology</b>  |            |
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| Sertoli cells undergo transdifferentiation into follicle-like cells through the prolonging of Figla expression in the protandrous black porgy.  |            |
| <b>Viral Transduction of Male Germline Stem Cells Results in Transgene Transmission after Germ Cell Transplantation in Pigs</b> .....   | Article 27 |
| <i>Wenxian Zeng, Lin Tang, Alla Bondareva, Ali Honaramooz, Valeria Tanco, Camila Soares, Susan Megee, Mark Modelski, Jose Rafael Rodriguez-Sosa, Melissa Paczkowski, Elena Silva, Matt Wheeler, Rebecca L. Krisher, and Ina Dobrinski</i>         |            |
| Viral vectors transduce pig germline stem cells (GSCs), and genetically modified GSCs colonize the recipient testis and produce transgenic sperm when transplanted into recipients.   |            |
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| Mouse Sertoli cell small noncoding RNA transcriptome was determined by 454 sequencing and annotated using a computer program developed by the authors.  |            |
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| <i>Dmrta2</i> is essential for maintaining <i>cdkn2c</i> expression in adult testis.  |            |
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| Di-n-butyl phthalate suppresses mouse antral follicle growth by triggering cell cycle arrest and apoptosis in a dose-dependent manner.  |            |