Contents

ON THE COVER

Photo credits to Peter Sutovsky (sperm photo), Randall Prather (egg photo), and Cheryl Ashworth (piglets).

PREFACE

Cheryl J. Ashworth
Published online (DOI: 22850)

REVIEW ARTICLES

Prediction of male fertility using capacitation-associated proteins in spermatozoa
Md Saidur Rahman, Woo-Sung Kwon, and Myung-Geol Pang
Published online (DOI: 22810)

Rapid conceptus elongation in the pig: An interleukin 1 beta 2 and estrogen-regulated phenomenon
Rodney D. Geisert, Jeffrey J. Whyte, Ashley E. Meyer, Daniel J. Mathew, María R. Juárez, Matthew C. Lucy, Randall S. Prather, and Thomas E. Spencer
Published online (DOI: 22813)

In vitro porcine blastocyst development in three-dimensional alginate hydrogels
Jeremy R. Miles, Taylor D. Laughlin, Catherine N. Sargs-Patino, and Angela K. Pannier
Published online (DOI: 22814)

Transcriptional control of genes mediating ovarian follicular growth, differentiation, and steroidogenesis in pigs
Holly A. LaVoie
Published online 8 June 2017 (DOI: 22827)

Artificial insemination with frozen-thawed boar sperm
Marc Yeste, Joan E. Rodríguez-Gil, and Sergi Bonet
Published online 19 June 2017 (DOI: 22840)

Developmental competence of porcine genome-edited zygotes
María A. Gil, Cristina A. Martinez, Alicia Nohalez, Inmaculada Parrilla, Jordi Roca, Jun Wu, Pablo J. Ross, Cristina Cuello, Juan C. Izpisua, and Emilio A. Martinez
Published online 8 June 2017 (DOI: 22829)

Reproductive tract modifications of the boar sperm surface
Bart M. Gadella
Published online (DOI: 22821)

Novel agents for sperm purification, sorting, and imaging
Jean M. Feugang
Published online 8 June 2017 (DOI: 22831)

Embryo-maternal dialogue during pregnancy establishment and implantation in the pig
Agnieszka Waclawik, Monika M. Kaczmarek, Agnieszka Blitek, Piotr Kaczynski, and Adam J. Ziecik
Published online 19 June 2017 (DOI: 22835)

Pregnancy and spontaneous fetal loss: A pig perspective
Mallikarjun Bidarimath and Chandrakant Tayade
Published online 29 June 2017 (DOI: 22847)

Functional amino acids in the development of the pig placenta
Guoyao Wu, Fuller W. Bazer, Gregory A. Johnson, Cassandra Herring, Heewon Seo, Zhaolai Dai, Junjun Wang, Zhenlong Wu, and Xiaolong Wang
Published online (DOI: 22809)

Controlling lactation oestrus: The final frontier for breeding herd management
William H. E. J. van Wettere, Alice C. Weaver, Emma C. Greenwood, Robyn Terry, Paul E. Hughes, and Karen L. Kind
Published online 19 June 2017 (DOI: 22838)
Physiological alterations associated with intrauterine growth restriction in fetal pigs: Causes and insights for nutritional optimization
Junjun Wang, Ceping Feng, Ting Liu, Meng Shi, Guoyao Wu, and Fuller W. Bazer
Published online 29 June 2017 (DOI: 22842)

Social status and housing factors affect reproductive performance of pregnant sows in groups
Janeen L. Salak-Johnson
Published online 1 August 2017 (DOI: 22846)

MicroRNA regulation of immune events at conception
Sarah A. Robertson, Bihong Zhang, Honyueng Chan, David J. Sharkey, Simon C. Barry, Tod Fullston, and John E. Schjenken
Published online 8 June 2017 (DOI: 22823)

Gene editing as applied to prevention of reproductive porcine reproductive and respiratory syndrome
Kristin M. Whitworth and Randall S. Prather
Published online (DOI: 22811)

Physiological mechanisms through which heat stress compromises reproduction in pigs
Published online (DOI: 22859)

Heat stress in pregnant sows: Thermal responses and subsequent performance of sows and their offspring
Matthew C. Lucy and Timothy J. Safranski
Published online 11 July 2017 (DOI: 22844)

Maternal lactocrine programming of porcine reproductive tract development
Carol A. Bagnell, Teh-Yuan Ho, Ashley F. George, Anne A. Wiley, Dori J. Miller, and Frank F. Bartol
Published online (DOI: 22815)

Scrotal insulation and sperm production in the boar
John J. Parrish, Kilby L. Willenburg, Katelynn M. Gibbs, Kylie B. Yagoda, Megan M. Krautkramer, Teyanna M. Loether, and Fabiana C.S.A. Melo
Published online 11 July 2017 (DOI: 22841)

Sow housing associated with reproductive performance in breeding herds
Yuzo Koketsu and Ryosuke Iida
Published online 8 June 2017 (DOI: 22825)

Genomics and metabolomics of post-weaning return to estrus
Lea A. Rempel, Gary A. Rohrer, and Danny J. Nonneman
Published online 8 June 2017 (DOI: 22820)

RFamide-related peptide 3 and gonadotropin-releasing hormone-II are autocrine–paracrine regulators of testicular function in the boar
Clay A. Lents, Jennifer F. Thorson, Amy T. Desaulniers, and Brett R. White
Published online 21 June 2017 (DOI: 22830)

Genetic control of complex traits, with a focus on reproduction in pigs
Louisa J. Zak, Ann Helen Gaustad, Alfonso Bolarin, Marleen L. W. J. Broekhuijse, Grant A. Walling, and Egbert F. Knol
Published online (DOI: 22875)

Genome-editing technologies to improve research, reproduction, and production in pigs
Kevin D. Wells and Randall S. Prather
Published online (DOI: 22812)