

56[™] ANNUAL MEETING FOR PHYSIOLOGY AND PATHOLOGY OF REPRODUCTION AND 48[™] JOINT MEETING OF VETERINARY AND HUMAN REPRODUCTIVE MEDICINE

PROGRAM

General Theme: "United Excellence – Reproductive Research in Animals and Men 2023"

Time: March 1-3, 2023

Location: Teaching Hall of the Medical Faculty of the University Münster / UKM, Lehrgebäude, Albert-Schweitzer-Campus 1, Geb. A6, 48149 Münster

WEDNESDAY, MARCH 1, 2023

From 14:45 15:00-16:00 16:15	Registration & Coffee break Meeting of the DVG group Reproductive Medicine Welcome (Congress President / FBN / DVG / DGRM)
Opening Session:	New tools in Reproductive Technology
16:30-17:15	Keynote 1 Testicular Organoids: Promising strategies for research and applications? Prof. Ina Dobrinski, Professor Comparative Biology & Experimental Medicine, University of Calgary, Canada
17:15-17:45	Short communications Establishment of placental 3-dimensional-(3D)-spheroid cultures to study the tropism of Coxiella burnetii for ovine trophoblasts <i>Dr. Jan-Dirk Haeger,</i> <i>Friedrich-Loeffler-Institut, Institute of Molecular Pathogenesis, Jena, Germany</i>
	Defining the transcriptome of in vivo derived bovine embryos through single-cell sequencing <i>Prof. Dr. Claudia Klein, Friedrich-Loeffler-Institut, Institute of Farm Animal Genetics (ING), Mariensee, Germany</i>
17:45-18:30	Keynote 2 Embryo biotechnology for the generation of innovative medical models Prof. Eckhard Wolf, Gene Center and Department of Veterinary Sciences, LMU Munich, Germany
From 18:30	Welcome Evening & Poster Slam



THURSDAY, MARCH 2, 2023

Session 2: Germline Preservation

- 8:30-9:15 Keynote 3 New insights and novel treatment options for fertility preservation in human females Prof. Richard Anderson, Centre for Reproductive Health, The Queen's Medical Research Institute, Edinburgh, UK
- 9:15-9:45 Short communications Hypothermic preservation of boar semen at 5 °C: a field test Florian Reckinger, Faculty of Agricultural Sciences and Landscape Architecture, Osnabrück University of Applied Sciences, Osnabrück, Germany

Regulation of local produced novel adipokines during different reproductive stages in the bovine ovary Granit Thaqi, Animal Physiology and Immunology, School of Life Sciences, Technical University of Munich, Weihenstephan, Germany

- 9:45-10:30 **Keynote 4** Assisted reproduction for endangered wildlife breeding – a true conservation tool? *Dr. Imke Wiemann, Allwetterzoo Münster*
- 10:30 Coffee Break and Poster Session I

Session 3: DGRM Price Session, AG MuT

11:30-12:30 DGRM presentation and short communications MicroRNA profiling of oviductal extracellular vesicles and early embryos reveals molecular 'snitches' on embryo quality Dr. Carmen Almiñana, Institute of Veterinary Anatomy, Vetsuisse-Faculty Zurich. University of Zurich. Lindau (ZH). Switzerland Filamin A – a new player in the ovary MSc Yuhao Jiang, Biomedical Center (BMC), Cell Biology, Anatomy III, Faculty of Medicine, Ludwig Maximilian University Munich (LMU), Planegg, Germany Functional analysis of the histidine N-methyltransferase SETD3 in endometriosis Melanie Poloczek, Department of Gynecology and Obstetrics, University Hospital Muenster, Muenster, Germany 12:30-13:30 Lunch Break 13:00 General Meeting of the DGRM working group "Reproduction in Humans and Animals" (AG MuT), Seminarraum 1. OG



THURSDAY, MARCH 2, 2023 - CONTINUATION

Session 4: Female Reproduction

13:30-14:15 **Keynote 5** Models for embryo implantation and decidualization: A story of adhesion and invasion Prof. Asgi T Fazleabas, Gynecology and Reproductive Biology, Michigan State University, USA

14:15-14:45 Short communications Characterization of bovine placental trophoblast giant cell migration by three-dimensional reconstruction

André Dörr, Institute for Anatomy, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany

Nutritional imbalance and FSH-induced ovarian hyperstimulation have an impact on the transcriptome of the ovine caruncular endometrium Özlem Bedir, Institute of Veterinary Anatomy, Vetsuisse Faculty, University of Zurich, Zurich, Switzerland

14:45-15:30 Keynote 6

Uterus transplantation: From animal models to the implementation of new clinical procedures

Prof. Mats Brännström, Department of Obstetrics & Gynecology, Sahlgrenska Academy, University of Gothenburg, Sweden

15:30 Coffee Break

Session 5: Male reproduction

16:00-16:45 Short communications

M1AP's role in male infertility: a comparative study in mice and men Nadja Rotte, Institute of Reproductive Genetics, University of Münster, Münster, Germany

Reproductive management of Ilama and alpaca flocks in Germany - results from a survey among animal owners

Dr. Henrik Wagner, Clinic for Obstetrics, Gynecology and Andrology, Justus Liebig University Giessen

Morphological changes in the canine epididymis during recovery after 5-months treatment with a deslorelin implant

Henriette Greiner, Unit for Reproductive Medicine – Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany



THURSDAY, MARCH 2, 2023 - CONTINUATION

16:45-17:30 **Keynote 7 (Zoo Lecture Hall)** Building the super sperm Prof. Moira O'Bryan, Dean Faculty of Science, The University of Melbourne, Victoria, Australia

19:00 Zoo tour and Conference Dinner in Zoo restaurant

FRIDAY, MARCH 3, 2023

Session 6: FBF Session

8:30-9:45

Invited talks

Correlation between fertility according to AI and embryonic developtment characteristics according to IVF in semen of Holstein Friesian sires *Prof. Dr. Michael Hölker, Department of Animal Science, Biotechnology & Reproduction in farm animals, University of Goettingen, Goettingen, Germany*

Comparative assessment of the stress level of dairy cows from stimuli encountered in everyday life

Katja Könneker, Institute for Reproduction of Farm Animals Schönow, (IFN Schönow), Bernau bei Berlin, Germany

Hypothermic, antibiotic-free preservation of boar semen is effective against multidrug resistant Serratia marcescens

Isabel Katharina Maaßen, Unit for Reproductive Medicine, Clinic for Pigs and Small Ruminants, University of Veterinary Medicine, Hannover, Germany

Seasonal changes of microRNA expression in cryopreserved bovine spermatozoa

Dr. Eleni Malama, Klinik für Reproduktionsmedizin, Departement für Nutztiere, Vetsuisse-Fakultät, Universität Zürich, Switzerland

Compensability of morphological sperm defects: a basis for the revision of minimum requirements for the use of boar semen

Prof. Dagmar Waberski, Unit for Reproductive Medicine, Clinic for Pigs and Small Ruminants, University of Veterinary Medicine Hannover, Hannover, Germany



FRIDAY, MARCH 3, 2023 – CONTINUATION

Session 7: Replace or Improve: Where are we going with experimental animal research?

9:45-10:30 Keynote 8 Chances and limits of microfluidic chip technology in biomedical applications Prof. Séverine Le Gac, Applied Microfluidics for BioEngineering Research (AMBER), MESA+ Institute for Nanotechnology, TechMed Centre, University of Twente, Enschede, The Netherlands

10:30 Coffee Break and Poster Session II

Session 7 – Continuation

11:30-12:00 Short communications

Saturated fatty acids in the follicular fluid are indispensable for the endocrine regulation of the ovarian cycle and estradiol production *Dr. Vijay Simha Baddela, Institute of Reproductive Biology, Research Institute*

for Farm Animal Biology (FBN), 18196 Dummerstorf, Germany

Endometrial gene expression in isolated hemoperfused equine uteri Emilia Diel, Unit for Reproductive Medicine – Clinic for Horses, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany

12:00-12:45 Keynote 9

Never replicate a successful experiment? Facing the reproducibility crisis in animal research *Prof. Helene Richter, Institute for neuro- and behavioural biology, University*

12:45 Lunch Break

Münster

Session 8: Breeding of pets: Shall we do what we can?

13:45-14:30 **Keynote 10** Are we breeding our best friends to death? Derailed ideas of beauty and detrimental inbreeding in dogs *Prof. Dr. Achim Gruber, Department of Veterinary Medicine, Institute of Veterinary Pathology, FU Berlin*



FRIDAY, MARCH 3, 2023 - CONTINUATION

14:30-15:00 Short communications

T cells in testicular germ cell tumors: New evidence of functional contributions by rare subsets

Rashidul Islam, Dept. of Veterinary Anatomy, Histology and Embryology, Justus Liebig University, Giessen, Germany/Centre for Reproductive Health, Hudson Institute for Medical Research, Clayton, Victoria, Australia

The infection course of uropathogenic Escherichia coli induced epididymoorchitis is affected by changes in iron homeostasis

Dr. Aileen Harrer, Institute of Anatomy and Cell Biology, Unit of Reproductive Biology, Justus-Liebig-University of Giessen, Giessen, Germany

- 15:00 Conference Poster Prizes
- 15:15 Goodbye



Poster

1. Generation of an orthotopic mouse model to study Caspase-8 biology and cell contact in human ovarian cancer

S. M. Aberoumandi, Institute for Veterinary Anatomy, Histology and Embryology, Justus Liebig University Giessen, Germany

 Effect of zinc, selenium, and vitamin E administration on the seminal antioxidant status and lipid peroxidation in infertile male dromedary camels

A. Ali, Department of Veterinary Medicine, College of Agriculture and Veterinary Medicine, Qassim University, Saudi Arabia

- 3. Clinicopathological features of an ovarian teratoma in an Arabian mare F. A. Al-Sobayil, Department of Veterinary Medicine, College of Agriculture and Veterinary Medicine, Qassim University, Saudi Arabia
- 4. Details matter freezing rate in sperm cryopreservation M. Bashawat, Leibniz Institute for Zoo and Wildlife Research, Department Reproduction Biology, Berlin, Germany
- 5. Establishment of a bovine granulosa- and theca co-culture A. Baufeld, Research Institute for Farm Animal Biology (FBN), Wilhelm-Stahl-Allee 2, Dummerstorf
- 6. Lipid interaction partners of recombinantly expressed porcine spermadhesin AQN-3 B. C. Braun, Leibniz Institute for Zoo and Wildlife Research, Department Reproduction Biology, Berlin, Germany
- Alpha 7 nicotinic receptors are involved in the regulation of ovarian functions (Part II) K. M. Caban, Gene Center - Laboratory for Functional Genome Analysis, Ludwig-Maximilian-University (LMU), Munich, Germany
- 8. Bull-, management- and environment-related factors affecting the DNA integrity of cryopreserved sperm

B. Cinar, Klinik für Reproduktionsmedizin, Departement für Nutztiere, Vetsuisse-Fakultät, Universität Zürich, Switzerland

9. Intracellular pathways associated with the function of canine decidual cells: involvement of selected protein kinases and their relation to progesterone signaling

I. De Geyter, Institute of Veterinary Anatomy, Vetsuisse Faculty, University of Zurich (UZH), Zurich, Switzerland



- 10. Extraction techniques of pork ovarian follicles for the construction of artificial ovaries *R. Dittrich, Frauenklinik des Universitätsklinikums Erlangen, Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen, Germany*
- 11. The importance of retraining herd-owner inseminators in dairy cattle: status quo A. Enzig-Strohm, Institute for Reproduction of Farm Animals Schönow, Bernau bei Berlin, Germany
- 12. TRPV2 in the human ovary and human granulosa cells K. Eubler, Biomedical Center Munich (BMC), Cell Biology, Anatomy III, Ludwig-Maximilian-University (LMU), Planegg-Martinsried, Germany
- 13. Roundup and glyphosate supplementation during in vitro maturation impact bovine embryonic development

A.-S. Fries, Chair for Molecular Reproductive Medicine, Clinic for Veterinary Obstetrics, Gynecology and Andrology, Justus-Liebig-University Giessen, Giessen, Germany

- 14. Fertility in high-volume-insemination in cattle M. Fuchs, Bayern-Genetik GmbH, Altenbach
- 15. Artiodactyla, but not other mammals, have multiple copies of the aromatase gene R. Fürbass, Institut für Fortpflanzungsbiologie, Forschungsinstitut für Nutztierbiologie (FBN), Dummerstorf, Germany
- Spatial and temporal distribution of the ruminant syncytin-like Berv-K1 in the bovine placenta and possible presence in placental extracellular vesicles J. Galli, Veterinär-Anatomisches Institut, Vetsuisse Fakultät, Universität Zürich, Switzerland
- 17. Transcriptomic effects of moderate and severe hypoxia on MA-10 murine Leydig cells L. A. B. Gomes, Kowalewski, Institute of Veterinary Anatomy, Vetsuisse Faculty, University of Zurich, Zurich, Switzerland.
- 18. Vitrification of bovine in vitro produced embryos using a semi-automated instrument *L. A. González-Grajales, Phönix Repro, GmbH, Bernau bei Berlin, Germany*
- Lactobacillus-conditioned medium supplemented during in vitro maturation of bovine oocytes helps to overcome the negative LPS effect
 O. Granacher, Clinic for Veterinary Obstetrics, Gynecology and Andrology, Faculty of Veterinary Medicine, Justus-Liebig-University Giessen, Germany
- 20. Radiological evaluation of extra genital endometriosis: four case series L. Hacioglu, SBÜ Training and Research Hospital Van, Turkey



- Effect of vibration emissions on boar sperm quality during shipping: interaction of vibration intensity, transport and storage time *T. Hafemeister, Institute for Reproduction of Farm Animals Schönow, Bernau, Germany*
- 22. Impact of maternal age on the expression of the anti-oxidative and anti-glycative enzymes in human uterus

E. Halbauer, Department of Anatomy and Cell Biology, Martin Luther University Halle-Wittenberg, Halle (Saale), Germany

- 23. Glucose and calcium concentrations in cats with dystocia: a retrospective analysis D. Hardegen, Clinic for obstetrics, gynecology, and andrology of small and large animals with an ambulatory service of Justus-Liebig-University, Giessen, Germany
- 24. Hypoxia regulates protein abundance and inflammatory factors in human granulosa cells *M. Höfner, Biomedical Center Munich (BMC)*
- 25. Change of progesterone receptors expression during luteinisation of granulosa cells of domestic cat in vitro

M. M. Hryciuk, Leibniz Institute for Zoo and Wildlife Research, Department Reproduction Biology, Berlin, Germany

26. Host range determination and classification of bacteriophages specific to equine genital pathogens

R. Hüsch, Unit for Reproductive Medicine – Clinic for Horses, University of Veterinary Medicine, Foundation, Hannover, Germany

- 27. The effect of oxytocin stimulation on canine myometrial contractions in the organ bath C. Jungmann, Unit for Reproductive Medicine – Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany
- 28. A Multi-faceted Approach to Differentiation of Male Germ Cells from Primates P. W. Kibui, Centrum für Reproduktionsmedizin und Andrologie, Medizinische Fakultät, Westfälische Wilhelms-Universität Münster, Germany
- 29. Regulation of IL1B and IL1RA mRNA expression in bovine endometrial explants after treatment with selected bacterial components and cytokines

A. M. Kneidl, Schabmeyer, Clinic for Ruminants with Ambulatory and Herd Health Services, Centre for Clinical Veterinary Medicine, Ludwig Maximilians University Munich

30. Evaluation of serum anti-Mullerian hormone concentrations following treatment with vitamin D in dairy heifers

D. Koca, Clinic for veterinary obstetrics and gynecology, Van YY- University, Van, Turkey



- 31. Expression of hormone receptors, PTGS2 and KI-67 in canine vaginal tumors H. Körber, 1Unit for Reproductive Medicine – Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany
- 32. Utilizing mass spectrometry to identify proteomic changes in human sperm with abnormal morphology and motility

S. D. Kothalawala, Institute for Veterinary Anatomy, Histology and Embryology, Justus Liebig University Giessen, Germany

33. Effect of the developmental environment on mitochondrial respiration characteristics of bovine cryopreserved blastocysts

J. Kurzella, Institute of Animal Science, Animal Breeding, University of Bonn, Bonn, Germany

- 34. Vaginal flora of the bitch: a retrospective data analysis A. Leps, Unit for Reproductive Medicine– Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany
- 35. The Dummerstorf high-fertility mouse line 1 a worldwide unique model for increased female reproductive performance

C. L. M. Ludwig, Research Institute for Farm Animal Biology (FBN), Dummerstorf, Germany

36. Case report: Congenital vulvar hypoplasia with and without secondary azotemia and urinary phlegmon in an adult and newborn female alpaca

J. Lüttgenau, Clinic of Reproductive Medicine, Vetsuisse Faculty, University of Zurich, Switzerland

- 37. Influence of different extenders for cryopreservation and equilibration times on sperm quality and fertility in Holstein Friesian bulls in Germany *T. Meschede, Rinder-Union West eG, Muenster, Germany*
- Post-mortem assessment of the reproductive status of male wolves (Canis lupus) in Germany

K. Müller, Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin, Germany

- 39. Sertoli cell number is altered in dogs with immune-mediated orchitis P. Rehder, Unit for Reproductive Medicine– Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany
- 40. HIF-1 α modulates the expression of cell survival and glucose uptake related genes in bovine granulosa cells

K. Abbasi Samie, Institute of Veterinary Anatomy, Vetsuisse Faculty Zurich, Switzerland



41. Association between components of the IGF system in blood and in the oocyte microenvironment (follicular fluid) in dairy cows

C. Schiffers, Martin-Luther University Halle-Wittenberg, Faculty of Natural Sciences III, Institute of Agricultural and Nutritional Sciences, Animal Health Management

 Extraction forces at different traction modes during manually assisted calving an in vivo study

S. Schmidt, Clinic for Ruminants (Internal medicine and Surgery), University of Giessen, Giessen, Germany

43. Teat cistern and udder parenchyma differentially respond to Staphylococcus (S.) aureus and Escherichia (E.) coli challenge in a bovine explant model

J. Schneider, Petzl, Clinic for Ruminants with Ambulatory Clinic and Herd Health Management, Centre for Clinical Veterinary Medicine, Ludwig-Maximilians-University Munich, Germany;

44. Effect of mito-tempo on embryonic development and cryogenic variability of IVP derived bovine blastocysts

M. Schreiber, Department of Animal Science, Biotechnology & Reproduction in farm animals, University of Goettingen, Goettingen, Germany

- 45. Immunohistochemical and gene expression studies of oestrogen, progesterone, oxytocin and prostaglandin F2alpha receptors in the bovine uterus during the postpartum period *C. Schwär, Clinic for Cattle*
- 46. Causes of dystocia in the cat

S. Sendag, Clinic for veterinary obstetrics and gynecology, Van YY- University, Van, Turkey

- Alpha 7 nicotinic receptors are involved in the regulation of ovarian functions (Part I) *P.* Seßenhausen, Biomedical Center (BMC), Cell Biology, Anatomy III, Faculty of Medicine, Ludwig Maximilian University Munich (LMU)
- Ovarian stromal cells contribute to tumor progression in bovine ovary
 A. Sharma, Institut f
 ür Fortpflanzungsbiologie, Forschungsinstitut f
 ür Nutztierbiologie
 (FBN) Dummerstorf, Germany
- 49. The potential of oxytocin-antagonists as a new therapeutic for the treatment of benign prostatic hyperplasia

B. Stadler, Institute of Anatomy and Cell Biology, Justus-Liebig-University, Giessen, Germany



50. Effects of the glucocorticoids, Dexamethasone and Cortisol, on Human Testicular Peritubular Cells

Y. K. Stepanov, Laboratory for Functional Genome Analysis LAFUGA, Gene Center, LMU München, München, Germany.

- 51. Unsaturated fatty acids induce glycolytic consumption of glucose in granulosa cells X. Tao, Institute of Reproductive Biology, Research Institute for Farm Animal Biology (FBN), Dummerstorf, Germany
- 52. The determination of SERPINA14 in ovarian tissue, immature and *in vitro* matured cumulus-oocyte complexes in cattle

A. Turhan, Clinic of Reproductive Medicine, Department of Farm Animals, Vetsuisse Faculty University of Zurich, Zurich, Switzerland

- 53. Influence of processing bovine colostrum on anti-trypsin activity L. Trzebiatowski, Clinic for Obstetrics, Gynaecology and Andrology of Large and Small Animals, Justus-Liebig University, Gießen, Germany
- 54. Androgen signaling during downregulation and recovery subsequent to 5-months deslorelin treatment

A. Vasetska, Unit for Reproductive Medicine – Clinic for Small Animals, University of Veterinary Medicine Hannover, Foundation, Hannover, Germany

- 55. Correlations between colostrum composition and blood parameters of sows A. Vernunft, Research Institute for Farm Animal Biology (FBN), Dummerstorf, Germany
- 56. Lactobacillus buchneri showed increased growth rate in the presence of bovine mucus collected at estrus in contrast to Trueperella pyogenes *T. Wahl, Institute of Veterinary Biochemistry, Freie Universität Berlin, Germany*
- 57. Spermatocele in a three-year-old Galloway bull A case report M. Wiebe, Klinik für Rinder, Stiftung Tierärztliche Hochschule Hannover, Germany
- 58. Stimulating the androgenic response through administration of an LHR agonist to Leydig cells obtained from the 41,XXY* Klinefelter syndrome mouse model *J. Wistuba, Institute of Reproductive and Regenerative Biology, Centre of Reproductive Medicine and Andrology, University Clinics Münster*
- 59. Glutathione peroxidase activity and total antioxidant capacity in spermatozoa of dogs with benign prostatic hyperplasia

S. Zduńczyk, Department of Animal Reproduction with Clinic, University of Warmia and Mazury, Olsztyn, Oczapowskiego 14, Poland