

Conference program

9th SEPTEMBER 2024

08:00 – 09:00 Registration (Lecture Room 1W, Vet. Faculty)

09:00 – 09:15 Opening remarks: Prof. D. Skarżyński, Prof. Wojciech Nizański

09:15 – 11:05 **Session I: Formation of the CL and maintenance of the luteal function**

Moderator 1: Prof. Agnieszka Rak (Jagiellonian University, Krakow, Poland).

Moderator 2: Prof. Mariusz Kowalewski (Vetsuisse Faculty, University of Zurich, Zurich, Switzerland)

Lectures:

09:15 – 09:50 **Agnieszka Rak** “A new perspective on the regulation of corpus luteum: expression and role of visfatin (NAMPT) on luteal transcriptome, proteome and functioning”

09:50 – 10:25 **Mariusz Kowalewski** “Targeted and Global Insights into the Regulation of CL Function in the Dog”

Short oral presentations:

10:25 – 10:45 **Vijay Simha Baddela** “Single-cell reconstruction of the bovine corpus luteum”

10:45 – 11:05 **Karolina Pich** “Comparative analysis of expression of omentin-1 in porcine ovarian follicles vs corpus luteum and its in vitro effects on proliferation, apoptosis and steroidogenesis”

11:05 – 11:30 Coffee break

11:30 – 14:00 **Session II: Regression of CL function and luteal dysfunctions**

Moderator 1: Dr. Camilla Hughes “Luteal responsiveness to prostaglandin F2A: from development to regression” (Department of Animal Science, College of Agriculture Sciences, University Park, PA, USA),

Moderator 2: Prof. Sławomir Wołczyński (Faculty of Medicine, Medical University of Białystok, Poland)

Lectures:

11:30 – 12:05 **Camilla Hughes** “Luteal responsiveness to prostaglandin F2α: from development to regression”

12:05 – 12:40 **Sławomir Wołczyński** “Luteal phase defect in women”

Short oral presentations:

12:40 – 13:00 **Ewa Mlyczyńska** “Phoenixin-14 modulates angiogenesis, cell proliferation, and apoptosis in porcine corpus luteum”

13:00 – 13:20 **Muhittin Tekin** “Effect of heat stress on the mRNA expression in the corpus luteum of dairy cows”

13:20 – 13:40 **Marvin Hölper** “Corpus luteum diagnostic via ultrasound - A viable tool for treatment decisions in Ovsynch protocols”

13:40 – 14:30 Lunch break

15:00 – 19:00 Ceremonial session of the Fraenkle's Symposium (the *Collegium Anatomicum*, Medical University of Wrocław)

15:00 – 15:20 Official opening ceremony:

- Prof. Piotr Ponikowski – *Rector of Medical University of Wrocław*
- Prof. Krzysztof Kubiak – *Rector of Wrocław University of Environmental and Live Sciences*
- Prof. Bernd Hoffmann – *Justus-Liebig-Universität Gießen*
- Prof. Jan Twardoń – *Wrocław University of Environmental and Live Sciences*

15:20 – 16:10 Plenary lecture: Prof. John Davis “Control of Luteal Function by Luteinizing Hormone: Insights into multi-organelle control of steroidogenesis” (*Department of Obstetrics and Gynecology, University of Nebraska Medical Center, Omaha, NE, United States*)

16:10 – 16:30 Bernd Hoffmann “*Dr Ludwig-Fraenkel – “spiritus rector on the early progesterone research”*”

16:30 – 16:50 Tomasz Fuchs “*Progestagens in current human reproductive medicine*” (Wrocław Medical University, Poland)

16:50 - 17:10 Malgorzata Ochota “*Progestagens in current veterinary reproductive medicine*” (Wrocław University of Environmental and Live Sciences, Wrocław, Poland)

17:10 – 17:40 Coffee break

17:40 – 19:00 Visiting Medical University of Wrocław

- Anatomical Museum & Old Library – **Prof. Marek Syrycki**
- Places where Dr. Fraenkel and Dr. Slota worked to discover and characterize progesterone (former Dep. of Reprod.) – **Prof. Tomasz Fuchs**

10th SEPTEMBER 2024 (Lecture Room 1W, Vet. Faculty)

09:00 – 09:45 Plenary lecture: Prof. Milo Wiltbank “Physiologic models and practical implications from my research on the corpus luteum” (*Department of Dairy Science, University of Wisconsin, Madison, USA*)

09:45 – 10:15 Coffee break

10:15 – 13:00 Session III: Ovarian-oviductal-uterine interactions during the estrous cycle and early pregnancy

Moderator 1: Dr. Dimitrios Rizos (*Dept. of Animal Reproduction, INIA-CSIC, Madrid, Spain*),

Moderator 2: Prof. Graca M. Ferreira-Dias (*Faculty of Veterinary Medicine, Lisbon University, Lisbon. Portugal*)

Lectures:

10:15 – 10:50 Dimitrios Rizos “Current insights into Preimplantation Embryo-Maternal Communication in Cows”

10:50 – 11:20 Graca M. Ferreira-Dias “Mare endometrium disorders: Inflammation, Fibrosis, and Therapeutic approaches”

Short oral presentation:

11:20 – 11:40 Saumya Gunasekara “Determination of Porcine Follicular Fluid Extracellular Vesicles Effect on Boar Spermatozoa Survival In Vitro”

11:40 – 12:00 Edith Maria Habich “Relationship between the epithelial immune response in the uterus and oviduct in postpartum dairy cows”

12:00 – 13:00 Poster session / Coffee break

13:00 – 14:00 Lunch

14:00 – 17:00 Session IV: Etiology and pathogenesis of uterine disorders

Moderator 1: Dr. Fidel Ovidio Castro (*Laboratory of Animal Biotechnology, Department of Animal Science, Faculty of Veterinary Science, University of Concepción, Chillán, Concepción, Chile*),

Moderator 2: Dr. Anna Szóstek-Mioduchowska (*Department of Reproductive Immunology and Pathology, IAR&FR PAS Olsztyn*)

Lectures:

14:00 – 14:35 Fidel Ovidio Castro “The impact of TGF β 1, mesenchymal stem cells, and extracellular vesicles on equine in vitro endometrial fibrosis models”

14:35 – 15:10 Anna Szóstek-Mioduchowska “Fibroblasts as key regulators of endometrial fibrosis in the mare: insights from transcriptomic and functional analysis”

15:10 – 15:40 Coffee break

Short oral presentations:

15:40 – 16:00 Lei Xie “Transcriptomic landscapes of the endometrium in dairy cows with clinical or subclinical endometritis”

16:00 – 16:20 Joana Alpoim-Moreira *“The effect of the demethylating agent decitabine on collagen expression in mare endometrial fibroblasts treated with elastase”*

16:20 – 16:40 Natacha Murderspach *“Mapping of the plasma and endometrial proteome of mares with healthy and fibrotic endometria”*

16:40 – 17:00 Agnieszka Sadowska *“The potential role of IL-17 in the processes associated with the development of endometriosis”*

19:00 – 22:00 Gala dinner – at the cruise on Odra River

11th SEPTEMBER 2024

09:00 – 09:45 Plenary lecture III: Prof. Stephen LeBlanc “Metabolic and reproductive health in dairy cows” (*Ontario Veterinary College, University of Guelph, Ontario, Canada*)

09:45 – 10:15 Coffee break

10:15 – 13:00 Session V: New diagnostic tools of uterine disorders in farm animals
Moderator 1: Dr. Tal Raz (*Jerusalem Hebrew Univ. Rehovot, Israel*),
Moderator 2: Dr. Mette Christoffersen (*University of Copenhagen, Department of Veterinary Clinical Sciences; Copenhagen, Denmark*)

Lectures:

10:15 – 10:50 Tal Raz “*Metagenetics of the female reproductive tract: opportunities, challenges, and lessons learned*”

10:50 – 11:25 Mette Christoffersen “*Update on diagnostic procedures for equine endometritis*”

11:25 – 12:00 Coffee break

Short oral presentations:

12:00 – 12:20 Muhammad Hussnain Rashid “*Functional metagenomics of endometrial cytology samples from dairy cows diagnosed with clinical or subclinical endometritis*”

12:20 – 12:40 Laura Vanina Madoz “*Comparative analysis of antimicrobial resistance through whole genome sequencing in healthy and metritic cows and their environment*”

12:40 – 13:00 Priit Karis “*The association of cytological endometritis with insulin resistance and gene expression in adipose tissue in transition dairy cows*”

13:00 – 14:00 Lunch

14:00 – 16:50 Session VI: Therapy of uterine disorders in farm animals

Moderator 1: Dr. Igor Canisso (*College of Veterinary Medicine, University of Illinois, Urbana, IL, USA*),

Moderator 2: Prof. Geert Opsomer (*Faculty of Veterinary Medicine, Ghent University, Belgium*)

Lectures:

14:00 – 14:35 Igor Canisso “*Endocrinological and embryo-associated parameters in PPID in mares treated with pergolide and metformin*”

14:35 – 15:10 Geert Opsomer “*New insights in the treatment and control of postpartum uterine disease in high-yielding dairy cows*”

15:10 – 15:40 Coffee break

Short oral presentations:

15:40 – 16:00 Rodolfo Luzbel de la Sota “*The addition of meloxicam to the treatment of clinical and subclinical mastitis improved the cure rate and fertility in dairy cows in Ecuador*”

16:00 - 16:20 Ahmet Cihad Gok *“Mechanisms regulating the protection of mammalian cells against damage caused by cholesterol-dependent cytolysins from pathogenic bacteria”*

16:20 - 16:40 Marta Marcinek *“Antimicrobial effects of cold plasma-activated solutions against selected bacteria causing endometritis in mares: an in vitro preliminary study”*

16:40 Closing Ceremony, Awarding of best presentation and poster

19:00 – 22:00 Guided Wrocław sightseeing tour

12th SEPTEMBER 2024

9:00 – 17:00 Open Workshop and Discussion on animal behaviour, welfare and health: “Whether large farm animals could be alternative research models for biomedical study?” with scientific and historical excursion to Swidnica, Książ Castel and Książ Horse State Stud.