

Conference program

*The 5th Winter Workshop of the Society for Biology of Reproduction
„Central and Local Regulations of Reproductive Processes”*

WEDNESDAY, FEBRUARY 13, 2019

14:00 Registration opens

THURSDAY, FEBRUARY 14, 2019

08:30-08:45 Opening Ceremony – Prof dr hab Andrzej Sechman

08:45-09:30 Plenary lecture- Prof dr hab Wojciech Nizański
HOW OLD IS TOO OLD – ANDROPAUSE IN ANIMALS AS IN HUMAN?

09:30-11:30 Session 1

FROM OOCYTE TO EMBRYO – BIOTECHNOLOGY IN ANIMAL REPRODUCTION

Prof.dr hab. Jan Twardoń, dr Magdalena Kowalik

09:30–09:45 Gajda B, Poniedziałek-Kempny K, Rajska I, Smorąg Z. *IN VITRO* FERTILIZATION AND SUBSEQUENT DEVELOPMENT OF VITRIFIED PORCINE OOCYTES MATURED WITH THYMOSIN

09:45–10:00 Gąsior Ł, Ptak EG, Polański Z. THE INFLUENCE OF GENOTOXIC STRESS ON THE INCREASE OF mtDNA COPY NUMBER.

10:00-10:15 Prochowska S, Ochota M, Nizański W, Partyka A, Kochan J, Młodawska W, Nowak A, Skotnicki J, Grega T, Pałys M. THE EFFECT OF REDUCED OXYGEN TENSION ON FELINE OOCYTES MATURATION AND EMBRYO DEVELOPMENT IN VITRO.

10:15–10:30 Rudnicka J, Gąsior Ł, Bisogno S, Fic K, Polański Z, Ptak GE. QUANTITATIVE IMAGING OF LIPIDS IN OOCYTES OBTAINED FROM DIAPAUSING MAMMALIAN SPECIES USING COHERENT ANTI-STOKES RAMAN SCATTERING (CARS) MICROSCOPY

10:30–10:45 Staszkiwicz-Chodor J, Sinderewicz E, Grycmacher K, Boruszewska D, Kowalczyk-Zięba I, Woławek-Potocka I. EXPRESSION OF PROSTAGLANDIN F_{2α} IN OOCYTES AND CUMULUS CELLS DERIVING FROM PUBERTAL AND PREPUBERTAL COWS, DEPENDING ON THE QUALITY OF THE OOCYTE

10:45–11:00 Szczepańska AA, Kotlarczyk AM, Dubetek R, Dziekońska A, Kozirowska-Gilun M, Kordan W, Wocławek-Potocka I, Korzekwa AJ. IN VITRO FERTILIZATION OF RED DEER OOCYTES WITH FRESH AND FROZEN SEMEN AND BLASTOCYST MATURATION

11:00–11:15 presentation SanLab -sponsor

11:15–11:45 Coffee break

11:45-13:15 Session 2

CENTRAL AND METABOLIC REGULATIONS OF REPRODUCTION

Dr hab. Andrzej Herman prof nadz., Dr Małgorzata Szczęsna

11:45–12:00 Biernat W, Szczęsna M, Kirsz K, Zięba DA. THE EFFECT OF NUTRITIONAL STATUS ON RESISTIN'S-MEDIATED LEPTIN INSENSITIVITY IN SHEEP

12:00–12:15 Kiezun M, Dobrzyn K, Szeszko K, Rytelwska E, Kisielewska K, Gudelska M, Zaobidna E, Bors K, Wyrebek J, Mykytiuk A, Kaminska B, Smolinska N, Kaminski T. EXPRESSION OF CHEMOKINE LIKE RECEPTOR 1 (CMKLR1/CHEMR23) IN THE PORCINE HYPOTHALAMUS DURING THE OESTROUS CYCLE

12:15–12:30 Kirsz K, Szczęsna M, Biernat W, Żebrowska M, Zięba-Przybylska DA. EFFECTS OF CENTRAL OREXIN A ON GONADOTROPINS AND PROGESTERONE SECRETION IN EWES IN THE LUTEAL PHASE OF THE ESTROUS CYCLE AND IN THE ANESTRUS

12:30–12:45 Kisielewska K, Rytelwska E, Gudelska M, Kiezun M, Zaobidna E, Dobrzyn K, Szeszko K, Wyrebek J, Bors K, Mykytiuk A, Kaminska B, Smolinska N, Kaminski T. CHEMERIN EXPRESSION IN THE PORCINE PITUITARY DURING THE ESTROUS CYCLE AND EARLY PREGNANCY

12:45–13:00 Młotkowska P, Marciniak E, Misztal T. EXPRESSION OF SELECTED GENES OF THE GONADOTROPIC SYSTEM IN SHEEP TREATED WITH STRESSFUL STIMULI AND ALLOPREGNANOLONE

13:00–13:15 Wartalski K, Gorczyca G, Wiater J, Duda M. CHANGES IN PHENOTYPE OF OVARIAN MESENCHYMAL STEM CELLS INDUCED BY ANABOLIC STEROIDS

13:15-13:45 Poster session no. I (sessions 1-4)

13:45-14:45 Lunch

14:45-16:00 Session 3

ENVIRONMENTAL DETERMINANTS OF REPRODUCTION

dr hab Anna Ptak, dr hab. Magdalena Socha

14:45–15:00 Gogola J, Hoffmann M, Ptak A. PERSISTENT ORGANIC POLLUTANTS PRESENT IN HUMAN FOLLICULAR FLUID THROUGH MODULATING E2 AND IGF1 SECRETION BY ADULT GRANULOSA CELL TUMORS STIMULATE HUMAN GRANULOSA CELLS PROLIFERATION.

15:00–15:15 Kowalik K, Kozubek A, Katarzyńska-Banasik D, Socha J, Zarabska A, Hrabia A, Sechman A. NITROPHENOLS INHIBIT BASAL AND 8-Br-cAMP INDUCED STEROID HORMONE SECRETION BY OVARIAN FOLLICLES OF THE HEN (*GALLUS DOMESTICUS*)

15:15–15:30 Socha M, Drag-Kozak E, Sokołowska-Mikołajczyk M, Chyb J. EFFECT OF HERBICIDE ROUNDUP AND TAMOXIFEN ON PRUSSIAN CARP (*CARASSIUS GIBELIO* B.) OOCYTE MATURATION AND SECRETION OF 17α 20 β -P IN VITRO

15:30–15:45 Witek P, Matusiak J, Grzesiak M, Słomczyńska M, Koziorowski M, Duda M, Knapczyk-Stwora K. NEONATAL EXPOSURE TO METHOXYCHLOR ALTERS PLASMA LEVEL OF FSH AND FSH RECEPTOR EXPRESSION IN OVARIAN FOLLICLES OF ADULT PIGS

15:45–16:00 Zajda K, Gregoraszczyk E. AHR/ER CROSS TALK IN PAH MIXTURES ACTION ON CELL PROLIFERATION AND HORMONE SECRETION BY HUMAN GRANULOSA CELLS

16:00-16:15 Coffee Break

16:15-17:45 Session 4

MATERNAL-FETAL ADAPTATIONS DURING PREGNANCY

Prof dr hab Dorota Lechniak – Cieślak, dr Jacek Wawrzykowski

16:15–16:30 Gudelska M, Dobrzyn K, Kiezun M, Rytelawska E, Kisielewska K, Zaobidna E, Szeszko K, Wyrebek J, Bors K, Mykytyuk A, Kaminska B, Kaminski T, Smolinska N. THE EXPRESSION OF CHEMOKINE-LIKE RECEPTOR 1 (CMKLR1) GENE AND PROTEIN IN THE PORCINE ENDOMETRIUM DURING THE OESTROUS CYCLE AND EARLY PREGNANCY

16:30–16:45 Guzewska MM, Heifetz Y, Kaczmarek MM. SECRETION PATTERNS OF EXTRACELLULAR VESICLES DURING EARLY PREGNANCY IN THE PIG – *IN SITU* TRANSMISSION ELECTRON MICROSCOPY STUDY

16:45–17:00 Liu X, Schwarz T, Murawski M, Tayade Ch, Kridli R, Prieto Granados AM, Sharma Ch, Bartlewski PM. MEASUREMENTS OF CIRCULATING PROGESTERONE AND ESTRONE SULFATE CONCENTRATIONS AS A DIAGNOSTIC AND PROGNOSTIC TOOL IN PORCINE PREGNANCY REVISITED

17:00–17:15 Machlowska J, Zacchini F, Arena R, Frolova A, Branicki W, Łabaj P⁴, Bernhardt L, Haaf T, Ptak GE. UNIPARENTAL CONCEPTUS: TRANSCRIPTOME-WIDE

INVESTIGATION OF GENOMIC IMPRINTING STATUS IN SHEEP PLACENTAE.

17:15–17:30 Wawrzykowski J, Franczyk M, Kankofer M. ANALYSIS OF GLYCOSYLATION PROFILE OF MEMBRANE PROTEINS IN PLACENTA OF COWS DURING PREGNANCY AND PARTURITION

17:30–17:45 Zacchini F, Stankiewicz AM, Bernardt L, Haaf T, Ptak GE. GENOME-WIDE METHYLATION PROFILE OF PLACENTAE AND FETAL TISSUES DEVELOPED FOLLOWING ASSISTED REPRODUCTIVE TECHNOLOGIES

19:00 Dinner

FRIDAY, FEBRUARY 15, 2019

09:00–10:30 Session 5

MOLECULAR ANDROLOGY – THE COGNITIVE AND APPLICATIVE ASPECTS
dr hab Katarzyna Knapczyk- Stwora, dr hab. Jolanta Opiela

09:00–9:15 Kamińska A, Marek S, Pardyak L, Pawlicki P, Bilińska B, Hejmej A. THE EFFECT OF ANDROGEN SIGNALING DISRUPTION ON NOTCH PATHWAY IN PERIPUBERTAL RAT TESTIS – AN IN VIVO STUDY

09:15–09:30 Mietelska K, Orzolek A, Wysocki P, Kordan W. DIFFERENCES IN SPERM PROTEINS PHOSPHORYLATION STATUS IN EVERY SEGMENT OF GOAT (CAPRA HIRCUS) EPIDYDIMIS

09:30–09:45 Miłoś A, Pawlicki P, Pardyak L, Kamińska A, Bilińska B, Kotula-Balak M. ESTROGEN-RELATED RECEPTORS AND G PROTEIN-COUPLED ESTROGEN RECEPTOR IN RODENT LEYDIG CELLS

09:45–10:00 Pardyak L, Kaminska A, Brzoskwinia M, Marek S, Hejmej A, Kotula-Balak M, Jankowski J, Ciereszko A, Bilińska B. ALTERED LEVELS OF JUNCTIONAL PROTEIN GENE EXPRESSION IN REPRODUCTIVE TISSUES ARE LIKELY RELATED TO THE APPEARANCE OF YELLOW SEMEN IN DOMESTIC TURKEYS

10:00–10:15 Partyka A, Ligocka Z, Rodak O, Dudek A, Nizański W, Grandhaye J, Froment P. THE EFFECT OF NATURAL AND PHARMACOLOGICAL AGENTS ADDITION ON THE QUALITY OF CRYOPRESERVED CANINE SEMEN

10:15–10:30 Koziorowska-Gilun M, Dziekońska A, Kotlarczyk AM, Rafalska K, Purpurowicz PS, Kordan W. ANALYSIS OF MOTILITY AND SELECTED PARAMETERS OF THE ANTIOXIDANT STATUS OF EPIDIDYMAL SPERM OF RED DEER (CERVUS ELAPHUS L.) STORED IN ANDROMED® DILUENT

10:30–10:45 Coffee break

10:45–11:30 Poster session no. II (sessions 5-6)

11:30–13:30 Session 6

Local regulation of reproductive functions- Prof. dr hab Grażyna Ptak, dr Marta Kieżun

11:30–11:45 Dobrzyń K, Kowalik MK, Kotwica J. INFLUENCE OF STEROIDS ON THE EXPRESSION OF MEMBRANE PROGESTERONE RECEPTORS IN THE BOVINE PLACENTA

11:45–12:00 Grzesiak M, Słomczyńska M, Koziorowski M, Nowak S, Duda M, Knapczyk-Stwora K. THE EFFECT OF NEONATALLY ADMINISTERED SEX STEROID AGONISTS AND ANTAGONISTS ON AMH-AMH RECEPTOR SYSTEM IN OVARIAN FOLLICLES AND AMH PLASMA LEVEL OF ADULT PIGS

12:00–12:15 Hoffmann M, Gogola J, Ptak A. EFFECT OF APELIN, 17 β -ESTRADIOL AND INSULIN-LIKE GROWTH FACTOR 1 TREATMENT ON OVARIAN CANCER CELL PROLIFERATION IN 2D AND 3D CELL CULTURE MODEL IN VITRO.

12:15–12:30 Pawlicka B, Tomczyk I, Grzmil P. DOES THE INTERACTION OF PXT1 AND BAG6 PROTEINS HAVE AN EFFECT ON THE SPERM QUALITY IN MOUSE?

12:30–12:45 Rytelewska E, Kisielewska K, Gudelska M, Dobrzym K, Kieżun M, Zaobidna E, Szeszko K, Bors K, Wyrebek J, Mykytyuk A, Kaminska B, Kaminski T, Smolinska N. CHEMERIN AS A HORMONE THAT MODULATES PROGESTERONE SECRETION BY THE PORCINE OVARY DURING THE OESTROUS CYCLE

12:45–13:00 Zygmuntowicz A, Markiewicz W, Smolińska N, Dobrzyń K, Jaroszewski JJ. EFFECTS OF MONTELUCAST AND NIFEDIPINE ON THE UTERINE CONTRACTILITY IN IMMATURE AND PREGNANT PIGS

13:00-13:30 Closing ceremony and presentation of awards for the best scientific presentations and posters

14:00-15:00 Lunch

Zespół do oceny prezentacji posterowych

Dr hab. Wiesława Młodawska

Dr hab. Danuta Wrońska

Dr hab Jolanta Opiela

Dr hab Agnieszka Rak

Dr Kamil Dobrzyń

Poster presentation

Poster session. No. no. II (sessions 5-6)

Bielas W¹, Rzaśa A², Gil A¹, Nizański W¹. REPRODUCTIVE PERFORMANCE OF SOWS AFTER POST CERVICAL INSEMINATION WITH LIQUID SEMEN

Dzięgiel N, Jura J. EFFECTIVENESS OF TRANSFECTION WITH NANOPARTICLES OF RABBIT ZYGOTES-PRELIMINARY RESULTS

Fryc K¹, Kij B², Nowak A³, Wierzbicka A¹, Murawski M¹, Kochan J². ANALYSIS OF MORPHOKINETIC OF OVINE EMBRYOS USING A TIME LAPSE SYSTEM - PRELIMINARY RESEARCH

Gogol P, Bryła M, Trzcińska M, Bochenek M. EFFECT OF SOYBEAN LECITHIN ON THE POST THAW QUALITY AND FERTILITY OF RAM SEMEN

Gorczyca G, Duda M. IN VITRO MATURATION OF PORCINE OOCYTES USING NOVEL TECHNIQUE OF LIQUID MARBLE BIOREACTORS.

Jurkiewicz J, Wierzchoś A, Stefan J, Opiela J. SUCCESSFUL DIFFERENTIATION OF EQUINE MESENCHYMAL STEM CELLS (MSCs) INTO OSTEOBLASTS, CHONDROCYTES AND ADIPOCYTES DERIVED FROM THE BONE MARROW COLLECTED POST SLAUGHTER

Poniedziałek-Kempny K, Rajska I, Gajda L, Gajda B. THE ABILITY OF EJACULATED, EPIDIDIMAL OR WITHOUT PLASMA BOAR SEMEN FOR *IN VITRO* FERTILIZATION.

Rajska I, Poniedziałek-Kempny K, Soból K, Gajda B. THE EFFECT OF DIFFERENT ANTIOXIDANTS ON THE DEVELOPMENTAL COMPETENCES OF PIG EMBRYOS OBTAINED AFTER *IN VITRO* FERTILIZATION

Samiec M, Skrzyszowska M, Opiela J. CAN EPIGENOMIC MODIFIER USED FOR *IN VITRO* MATURATION OF NUCLEAR RECIPIENT OOCYTES BE ABLE TO IMPROVE THE COMPETENCES OF SOMATIC CELL NUCLEI TO SUPPORT THE DEVELOPMENTAL POTENTIAL OF PORCINE CLONED EMBRYOS?

Drzewiecka K, Gromadzka-Hliwa K, Kłós J, Zięcik AJ. APPLYING OF INTRA- AND EXTRACELLULAR MEASUREMENTS OF cAMP FOR DETERMINATION THE POSSIBILITY OF LH RECEPTORS INTERNALISATION IN THE GRANULOSA CELLS OF OVARIAN PREEVULATORY FOLLICLES IN THE PIG

Małyńska N¹, Pawlak P¹, Lechniak-Cieślak D¹. FATTY ACID PROFILE IN FOLLICULAR FLUID AFFECTS THE QUALITY OF PORCINE CUMULUS-OOCYTE COMPLEXES IN VITRO

Molik E¹, Kosmatko J¹, Szczęśna M, Misztal T². THE ROLE OF TRH AND LENGTH DAY IN THE REGULATION OF GROWTH HORMONE SECRETION IN LACTATING SHEEP

Murawski M¹, Schwarz T², Paravinja V³, Sohal J³, Ahmadi B³, Kridli RT⁴, Bartlewski PM³. EFFECTS OF SHORT-TERM LUPIN GRAIN FEEDING ON OVARIAN ACTIVITY IN NON-PROLIFIC POLISH MOUNTAIN EWES DURING THE BREEDING SEASON

Szczęśna M, Kirsz K, Wójcik K, Pisanko J, Wawrzyn A, Zięba D. EXPRESSION PROFILE OF LEPTIN RECEPTOR, PROLACTIN RECEPTOR AND SOCS-3 TRANSCRIPTS AT SELECTED STAGES OF FETAL DEVELOPMENT IN LAMBS

Tomczyk M¹, Wójcik M¹, Bochenek J¹, Pawlina B¹, Tomaszewska-Zaremba D², Antushevich A¹, Krawczyńska A¹, Herman A³, Herman AP¹. PERIPHERAL ADMINISTRATION OF CAFFEINE INFLUENCES THE SYNTHESIS OF GNRH AND LUTEINIZING HORMONE IN EWE DURING THE FOLLICULAR PHASE OF THE ESTROUS CYCLE

Zaobidna E, Kieżun M, Kisielewska K, Rytelawska E, Gudelska M, Dobrzyn K, Szeszko K, Wyretek J, Bors K, Mykytiuk A, Kaminska B, Smolinska N, Kaminski T. CHEMOKINE LIKE RECEPTOR 1 (CMKLR1/CHEMR23) EXPRESSION IN THE PORCINE HYPOTHALAMUS DURING EARLY PREGNANCY

Likszo P, Jalali BM, Skarżyński DJ. PROTEOMICS ANALYSIS OF THE PIG CORPUS LUTEUM DURING EARLY PREGNANCY

Dawid M, Mlyczyńska E, Kurowska P, Rak A. EFFECT OF APELIN ON THE ENDOCRINE FUNCTION OF THE HUMAN PLACENTA CELLS

Dobrzyn K, Kieżun M, Kisielewska K, Rytelawska E, Gudelska M, Szeszko K, Zaobidna E, Bors K, Wyretek J, Mykytiuk A, Kaminska B, Kaminski T, Smolinska N. DETERMINATION OF G PROTEIN-COUPLED RECEPTOR 1 (GPR1) GENE AND PROTEIN EXPRESSION IN THE PORCINE ENDOMETRIUM DURING EARLY PREGNANCY AND THE OESTROUS CYCLE

Franczyk M¹, Wawrzykowski J¹, Kankofer M¹. EXTRACELLULAR MATRIX PROTEINS DURING PREGNANCY AND AT PARTURITION IN PLACENTA OF COWS

Mlyczyńska E¹, Kurowska P¹, Drwal E¹, Tworzydło W², Rak A¹. APELIN/APJ EXPRESSION IN THE HUMAN PLACENTA CELLS AND ITS STIMULATORY ACTION ON CELL PROLIFERATION VIA APJ AND DIFFERENT KINASES ACTIVATION.

Najmuła J¹, Kaczmarek MM^{1,2}. miR-23b-3p INHIBITS MIGRATION AND STIMULATE PROLIFERATION OF JEG-3 HUMAN TROPHOBLAST CELL LINE

Poster session no. II (sessions 5-6)

Brzoskwinia M, Pardyak L, Kamińska A, Marek S, Hejmej A, Bilińska B. TESTICULAR EXPRESSION OF NECTIN FOLLOWING SHORT-TERM POSTNATAL EXPOSURE TO FLUTAMIDE IN ADULT RAT.

Duliban M, Dutka P, Kudrycka M, Gorowska-Wojtowicz E, Milon A, Pawlicki P, Kaminska A, Knapczyk-Stwora K, Hejmej A, Kotula-Balak M. IMPACT OF ESTROGEN-RELATED RECEPTOR (ERR) KNOCK DOWN ON EXPORTIN 5, DICER, DROSHA AND ARGONAUTE 2 EXPRESSION IN BANK VOLE (*MYODES GLAREOLUS*) LEYDIG CELLS *IN VITRO*

Fraser L, Mańkowska A*, Brym P, Mogielnicka-Brzozowska M. ANALYSIS OF GENE TRANSCRIPT EXPRESSION IN BOAR SPERMATOZOA DIFFERED IN FREEZABILITY

Gajda L, Cegła M, Rajska I, Gajda B. EFFECT OF MEDIA ON THE DNA INTEGRITY OF FREEZE-DRIED BOAR SPERMATOZOA: PRELIMINARY STUDY

Kotlarczyk AM^{1*}, Szczepańska A¹, Górka P², Przybyło M², Kowalski Z², Korzekwa A¹ CHARACTERISTICS OF FRESH AND CRYOPRESERVED EPIDIDYMAL SPERMATOZOA OF MUNTJAC (*MUNTJACUS REEVESI*)

Kuzborska A, Mogielnicka-Brzozowska M, Zasiadczyk Ł, Fraser L, Kordan W. PROTEOMIC ANALYSIS OF STALLION SPERMATOZOA FOLLOWING LONG-TERM STORAGE IN LIQUID NITROGEN

Mańkowska A¹, Orzolek A¹, Kordan W¹. OPTIMIZATION OF THE SELECTED ISOLATION AND IDENTIFICATION PROCEDURES OF THE STALLION EPIDIDYMAL FLUID PHOSPHOPROTEINS

Marek S, Kamińska A, Pardyak L, Wróbel K, Kotula-Balak M, Bilinska B, Hejmej A. THE ROLE OF DELTA-LIKE 4 AND JAGGED 1 IN THE REGULATION OF ANDROGEN RECEPTORS EXPRESSION IN MOUSE SERTOLI CELLS

Pawlicki P¹, Miloń A¹, Duliban M¹, Kaczmarczyk M¹, Bilińska B¹, Rak A², Kotula-Balak M¹. ESTROGEN REGULATION OF THE INTERSTITIAL TISSUE IN BANK VOLE TESTIS

Czaja E¹, Knapczyk-Stwora K¹, Koziorowski M², Słomeczyńska M1. THE IMPACT OF EACs NEONATAL TREATMENT ON ER α AND GPR30 PROTEIN EXPRESSION IN ADULT PIG UTERINE.

Gorowska-Wojtowicz E, Pawlicki P, Milon A, Kudrycka M, Dutka P, Bilinska B, Hejmej A, Kotula-Balak M. ROLE OF ESTROGEN-RELATED RECEPTORS (ERRs)

IN THE MAINTENANCE OF STEROIDOGENIC FUNCTION IN MOUSE ADRENAL CORTEX CELLS

Knapczyk-Stwora K¹, Costa MC², Grzesiak M³, Witek P¹, Słomczyńska M¹, Koziorowski M⁴. EFFECT OF NEONATAL ANDROGEN AND ANTI-ANDROGEN EXPOSURE ON THE REGULATION OF PORCINE LUTEAL FUNCTION – INSIGHTS FROM A TRANSCRIPTOMIC APPROACH

Kunicka Z, Kurzyńska A, Szydłowska A, Kaczyńska B, Rosińska W, Golubska M, Bogacka I. PEROXISOME PROLIFERATOR-ACTIVATED RECEPTOR LIGANDS AFFECT THE EXPRESSION OF IL-1B AND IL-6 IN THE PORCINE ENDOMETRIUM ON DAYS 18-20 OF THE ESTROUS CYCLE

Kurowska P^a, Mlyczyńska E^a, Dupont J^b, Rak A^a. VASPIN AS A NEW ADIPOKINE IN THE PORCINE OVARIAN FOLLICLES: EXPRESSION, IT'S REGULATION AND IMPACT ON STEROID SYNTHESIS.

Młodawska W, Konieczna A, Mrowiec P, Kochan J, Nowak A. ASSESSMENT OF MORPHOLOGY AND MITOCHONDRIAL MEMBRANE POTENTIAL OF SPERMATOOZOA FROM THE DIFFERENT REGIONS OF DOMESTIC CAT EPIDIDYMAL DUCT - PRELIMINARY RESULTS

Murawski M¹, Schwarz T², Jamieson M³, Bartlewski PM³. ECHOTEXTURAL CHARACTERISTICS OF THE MAMMARY GLAND DURING THE PERIOD ENCOMPASSING A PEAK OF LACTATION IN TWO BREEDS OF SHEEP VARYING IN MILK YIELDS

Socha JK¹, Wolak D¹, Saito N², Sechman A¹, Hrabia A¹. AQUAPORIN 4 IN THE CHICKEN OVIDUCT DURING PAUSE IN EGG LAYING

Szydłowska A^{*}, Kurzyńska A, Kunicka Z, Mierzejewski K, Adamowicz J, Bogacka I. THE EFFECT OF PPAR LIGANDS ON THE EXPRESSION OF LIF AND IL-10 IN PORCINE ENDOMETRIUM DURING FOLLICULAR PHASE OF THE ESTROUS CYCLE

Tański D¹. EXPRESSION OF AQP1, 2, 5 AND 7 mRNA IN THE PIG UTERINE EPITHELIAL CELLS DURING FOLLICULAR PHASE

Wolak D, Socha JK, Sechman A, Hrabia A. EXPRESSION AND ACTIVITY OF METALLOPROTEINASE-2 IN THE CHICKEN OVARY FOLLOWING TAMOXIFEN TREATMENT