

日・韓・中若手研究者シンポジウム
(若手奨励策検討委員会企画シンポジウム)
Japan-Korea-China Young Researchers' Symposium
&
第5回 日・韓・中交流シンポジウム
The 5th Japan-Korea-China Joint Symposium

日・韓・中交流シンポジウムは3年に1度開催されております。今回は、通常の交流シンポジウム（メインシンポジウム）のほか、若手奨励策検討委員会の企画で、「日・韓・中若手研究者シンポジウム」も開催します。若手シンポジウムは会期の冒頭に行われ、その後、本大会にもおいても三カ国の若手研究者が交流を深めるプログラムとなっております。皆様の多数のご参加をお待ちしています。

開催場所：信州大学上田キャンパス

開催日時：2018年9月12日（若手シンポジウム）、16日（メインシンポジウム）

1. Young Researchers' Symposium

テーマ：Organelle Dynamics in Reproductive Biology

開催場所：信州大学上田キャンパス D 棟 1F 10 番講義室

開催日時：2018年9月12日（水）13:00～16:30

Theme: Organelle Dynamics in Reproductive Biology

Venue: Shinshu University Ueda Campus, Building-D 1F Lecture Room No.10

Date: September 12 (Wed), 13:00-16:30

PROGRAM

Opening Remarks 13:00-13:10

Takashi MIYANO (President, The Society for Reproduction and Development, Japan)

Keynote Speech 13:10-13:50 (40 min including Q&A)

Chair: **Satoshi TSUKAMOTO**

YJKC-K Naotada ISHIHARA (Department of Biological Science, Graduate School of Science, Osaka University, and Department of Protein Biochemistry, Institute of Life Science, Kurume University, Japan)

Roles of mitochondrial dynamics in cellular function, development, and differentiation

Coffee Break 13:50-14:00

Session 1 14:00-14:40 (each presentation will be in 20 min including discussion)

Chair: **Sho NAKAMURA, Xiangwei FU**

YJKC-1 Nobuhiko ITAMI*, **Hisataka IWATA** (*Presenting author; Department of Animal Science, Tokyo University of Agriculture, Japan)
Mitochondrial quality control in mammalian oocytes

YJKC-2 Lu ZHANG*, **Minghui YANG, Jing WANG, Teng MA, and Guoshi LIU** (*Presenting author; China Agricultural University, China)
The synthesis of melatonin by mitochondrial in reproductive cells

Coffee Break 14:40-14:50

Session 2 14:50-15:30 (each presentation will be in 20 min including discussion)

Chair: **Shuai GAO, Eun Young KIM**

YJKC-3 Qi-En YANG^{1*}, Rong-Ge YAN^{1,2}, Shuang LI^{1,2} (*Presenting author; ¹Germ Cell Biology Group, Northwest Institute of Plateau Biology, Chinese Academy of Sciences, ²University of Chinese Academy of Sciences, China)
Molecular regulation of spermatogonial stem cell fate decisions

YJKC-4 Woo-Sung KWON (Department of Animal Biotechnology, Kyungpook National University, Republic of Korea)
The present and future prospect of diagnosis and prognosis of male fertility

Coffee Break 15:30-15:40

Session 3 15:40-16:20 (each presentation will be in 20 min including discussion)

Chair: **Yuki YAMAMOTO, Woo-Sung KWON**

YJKC-5 Eun Young KIM*, **Eun Ji LEE, Min Kyu KIM** (*Presenting author; Division of Animal & Dairy Science, Chungnam National University, Republic of Korea)
The cellular function of DJ-1 in transgenic dogs

YJKC-6 Kohei UMEZU*, **Yuuki HIRADATE, Kenshiro HARA, Kentaro TANEMURA** (*Presenting author; Laboratory of Animal Reproduction and Development, Graduate School of Agricultural Science, Tohoku University, Japan)
Sperm migration is regulated by stromal cell-derived factor 1 in Japanese Black cattle

Closing Remarks 16:20-16:30

2. Main Symposium

テーマ : Focus on Advanced Technologies for Animal Reproduction

開催場所 : 信州大学上田キャンパス N 棟 7F 第 1 会議室

開催日時 : 2018 年 9 月 16 日 (日) 10:00 ~ 16:30

Theme: Focus on Advanced Technologies for Animal Reproduction

Venue: Shinshu University Ueda Campus, Building-N 7F Meeting Room No.1

Date: September 16 (Sun), 10:00-16:30

PROGRAM

Opening Remarks 10:00-10:30

Takashi MIYANO (President, The Society for Reproduction and Development, Japan)

Jianhui TIAN (President, Animal Reproduction Branch of Chinese Association of Animal Science and Veterinary Medicine, China)

Topic 1: Genome editing 10:30-11:45 (each presentation will be in 25 min including Q&A)

Chair: **Atsuo OGURA, Nam-Hyung KIM**

JKC-1 Soo-Young YUM, Kyeong-Min KIM, Yun-Kyeong JIN, Ji-Hyun LEE, Goo JANG* (*Presenting author; College of Veterinary Medicine, Seoul National University, Republic of Korea)
Genome engineering technologies in cattle: from random to specific

JKC-2 Guangyin XI, Wenjing WANG, Yue WANG, Jianhui TIAN, Lei AN* (*Presenting author; College of Animal Science and Technology, China Agricultural University, China)
C-type natriuretic peptide (CNP) facilitates development of preantral follicles by enhancing proliferation of granulosa cells

JKC-3 Wataru FUJII (Graduate school of Agricultural and Life Sciences, The University of Tokyo, Japan)
Practical application of engineered endonucleases to generation of genetically modified mice

Lunch 11:45-13:15

Topic 2: Embryo production and transfer technology
13:15-14:30 (each presentation will be in 25 min including Q&A)

Chair: **Il-Keun KONG, Qien YANG**

JKC-4 Shuai GAO*, Jianhui TIAN (*Presenting author; College of Animal Science and Technology, China Agricultural University, China)
Investigating the induced pluripotent stem cells (iPSCs) quality and tracing the transcriptome landscapes of the human fetal stem cells

JKC-5 Koji KIMURA^{1*}, Takashi FUJII², Shuichi MATSUYAMA³, Hiroki HIRAYAMA⁴ (*Presenting author; ¹Graduate School of Environmental and Life Science, Okayama University, ²Animal Research Center, Hokkaido Research Organization, ³Graduate School of Bioagricultural Sciences, Nagoya University, ⁴Faculty of Bioindustry, Tokyo University of Agriculture, Japan)
Nonsurgical transfer of bovine elongating conceptus and its application for genomic evaluation

JKC-6 Youngsok CHOI*, Sohyun MOON, Minha CHO, Sujin LEE, Hoon JANG (*Presenting author; Department of Biomedical Science, CHA University, Republic of Korea)
Melatonin as fertoprotective adjuvants: prevention of chemotherapy-induced premature ovarian failure

Coffee Break 14:30-15:00

Topic 3: Conservation technology 15:00-16:15 (each presentation will be in 25 min including Q&A)

Chair: **Lei AN, Yuji HIRAO**

JKC-7 Keisuke EDASHIGE (College of Agriculture, Kochi University, Japan)
The movement of water and cryoprotectants in mammalian oocytes and embryos: membrane permeability and aquaporins

JKC-8 Lei GAO¹, Zhengyuan HUANG¹, Qingrui ZHUAN¹, Yuxi LUO¹, Shien ZHU¹, Yunpeng HOU², Xiangwei FU^{1*} (*Presenting author; ¹College of Animal Science and Technology, China Agricultural University, ²College of Biological Sciences, China Agricultural University, China)
Effects of vitrification on meiosis resumption of mice GV oocyte

JKC-9 Il-Keun KONG¹⁻³ (¹Department of Animal Science, Division of Applied Life Science (BK21Plus), ²GAST, Gyeongsang National University, ³The Kingkong Co. Ltd., Republic of Korea)
Genetic improvement of elite Hanwoo cattle by ovum pick-up system

Closing Remarks (Invitation to the 6th KCJ Joint Symposium) 16:15-16:30

Nam-Hyung KIM (Pre-president, Korean Society of Animal Reproduction, Republic of Korea)

Farewell Party

開催場所：信州大学上田キャンパス M 棟 1F マルベリーホール

開催日時：2018年9月16日（日）17:00～18:30

Venue: Shinshu University Ueda Campus, Building-M 1F Mulberry Hall

Date: September 16 (Sun), 17:00-18:30

Poster Presentation

開催場所：信州大学上田キャンパス N 棟 7F 第 3 会議室

開催日時：2018 年 9 月 15 日（土）10:30～12:00

Venue: Shinshu University Ueda Campus, Building-N 7F Meeting Room No.3

Date: September 15 (Sat), 10:30-12:00

- JKCP-1 Zhengyuan HUANG, Lei GAO, Qingrui ZHUAN, Yuxi LUO, Shien ZHU*, Xiangwei FU**
(*Presenting author; College of Animal Science and Technology, China Agricultural University, China)
The impacts of laser zona thinning on hatching and implantation of vitrified mouse embryos
- JKCP-2 Jing WANG, Zhenzhen ZHANG, Tianqi ZHU, Lu ZHANG, Guoshi LIU* (*Presenting author;**
College of Animal Science and Technology, China Agricultural University, China)
Effect of melatonin on porcine corpus luteum and related molecular mechanism
- JKCP-3 Dong WANG^{1*}, HaiYang ZUO^{1,2}, JunFang ZHANG¹, LiuGuang ZHANG^{1,3}, XiaoXia REN¹,
Xiao-Li CHEN¹ (*Presenting author; ¹The Key Laboratory for Farm Animal Genetic and Utilization
of Ministry of Agriculture of China, Institute of Animal Science, Chinese Academy of Agricultural
Science, ²JiLin Agriculture University Animal Science and Technology, ³HaiKou Mary Hospital
Reproductive Medicine Center, China)**
Transcriptomic variation during spermiogenesis in mouse germ cells
- JKCP-4 Hui CAO^{1,2}, Jun LI³, Wenlong SU^{1,2}, Junjie LI^{1,2*}, Zhigang WANG^{1,2}, Shuchun SUN^{1,2},
Shujun TIAN^{1,2}, Lu LI^{1,2}, Hanyang WANG^{1,2}, Jiexin LI^{1,2}, Xiaohuan FANG^{1,2}, Qiaoli WEI^{1,2},
Chuang LIU^{1,2} (*Presenting author; ¹College of Animal Science and Technology, Agricultural
University of Hebei, ²Research Center of Cattle and Sheep Embryo Engineering Technique of Hebei
Province, ³Department of reproductive medicine, The First Hospital of Hebei Medical University, China)**
Zebularine significantly improves the pre-implantation development of ovine somatic cell nuclear
transferred embryos
- JKCP-5 Ruoxin JIA¹, Zhiwei ZHU¹, Xiaoyu CHEN¹, Fuxian YU¹, Jing HUANG¹, Keiji MOCHIDA²,
Ayumi HASEGAWA², Atsuo OGURA², Jianzhi PAN^{1*} (*Presenting author; ¹Institute of Animal
Husbandry and Veterinary Science, Zhejiang Academy of Agricultural Sciences, China, ²RIKEN
BioResource Center, Japan)**
Effect of anti-inhibin serum treatment on ovulation in gilts
- JKCP-6 Lei GAO^{1*}, Zhengyuan HUANG¹, Qingrui ZHUAN¹, Yuxi LUO¹, Shien ZHU¹, Yunpeng HOU²,
Xiangwei FU¹ (*Presenting author; ¹College of Animal Science and Technology, China Agricultural
University, ²College of Biological Sciences, China Agricultural University, China)**
Effects of melatonin on meiosis process of vitrified mice GV oocyte
- JKCP-7 Qiuyue LIU^{1*}, Xiaoyun HE¹, Ran DI¹, Xiangyu WANG¹, Wenping HU¹, Xiaosheng ZHANG²,
Jinglong ZHANG², Mingxing CHU¹ (*Presenting author; ¹Key Laboratory of Animal Genetics and
Breeding and Reproduction of Ministry of Agriculture, Institute of Animal Science, Chinese Academy
of Agricultural Sciences, ²Tianjin Institute of Animal Sciences, China)**
Epigenetic changes for photoperiod responsiveness identified in DNA methylation maps using ewes
with seasonality of reproduction
- JKCP-8 Wenping HU^{1*}, Benmeng LIANG¹, Zhuangbiao ZHANG¹, Jiandong WANG², Jisun TAN¹,
Xiaojun LIANG², Mingxing CHU¹ (*Presenting author; ¹Key Laboratory of Animal Genetics and
Breeding and Reproduction of Ministry of Agriculture, Institute of Animal Sciences, Chinese Academy
of Agricultural Sciences, ²Research Center of Grass and Livestock, Ningxia Academy of Agriculture
and Forestry Sciences, China)**
Generation of *BMPRI3* gene editing Tan sheep via CRISPR/Cas9

- JKCP-9 Ting-xian DENG, Chun-ying PANG, Xing-rong LU, Sha-sha LIANG, Xiao-ya MA, An-qin DUAN, Xian-wei LIANG*** (*Presenting author; Key Laboratory of Buffalo Genetics, Breeding and Reproduction Technology, Buffalo Research Institute, Chinese Academy of Agricultural Sciences, China)
Single-cell RNA-Seq transcriptome analysis of buffalo preimplantation embryos derived from Ovum Pick-Up
- JKCP-10 Jiage DAI¹, Xiaomeng HUANG¹, Chao ZHANG², Xiaofei LUO¹, Suying CAO¹, Junli WANG¹, Bing LIU¹, Jianming GAO^{1*}** (*Presenting author; ¹College of animal science and technology, Beijing University of Agriculture, China, ²College of Animal Science and Technology, China Agricultural University, China)
Berberine regulates lipid metabolism of porcine oocytes *in vitro* maturation via miRNA-192
- JKCP-11 Likun REN, Yuan YUE, Lei AN, Juan LIU, Zhuocheng HOU, Jianhui TIAN*** (*Presenting author; College of Animal Sciences and Technology, China Agricultural University, China)
Mitochondrial DNA undergoes *de novo* methylation during early mouse development
- JKCP-12 Yan LUO^{1*}, Man-Ju CHE¹, Cong LIU², Hua-Ge LIU¹, Xiang-Wei FU³, Yun-Peng HOU¹** (*Presenting author; ¹College of Biological Sciences, China Agricultural University, ²School of life science, Wuchang University of Technology, ³College of Animal Science and Technology, China Agricultural University, China)
Toxicity and related mechanisms of dihydroartemisinin on porcine oocyte maturation *in vitro*
- JKCP-13 Yanyan SUN, Songshan XU, Yunlei LI, Aixin NI, Jianhua YE, Hui MA, Hong XU, Lei SHI, Jilan CHEN*** (*Presenting author; Key Laboratory of Animal Genetics Breeding and Reproduction (poultry), Ministry of Agriculture, Institute of Animal Science, Chinese Academy of Agricultural Sciences, China)
Chicken sperm freezability and its association with semen attributes and candidate gene expression
- JKCP-14 Yanyan SUN*, Yifan LIU, Yunlei LI, Fuguang XUE, Ma HUI, Jianhua YE, Hong XU, Lei SHI, Aixin NI, Jilan CHEN** (*Presenting author; Key Laboratory of Animal (Poultry) Genetics Breeding and Reproduction, Ministry of Agriculture, Institute of Animal Science, Chinese Academy of Agricultural Sciences, China)
Analysis of miRNA profiling using RNA sequencing in chicken testis with extreme sperm motility
- JKCP-15 Jie ZENG, Hongliang ZHANG, Meixia YANG, Yufang ZHANG, Shuilian WANG*** (*Presenting author; College of Veterinary Medicine, Hunan Agricultural University, China)
Direct regulatory effects of a newly-constructed lentiviral vectors encoding recombinant mouse GnIH on the granulosa cells
- JKCP-16 Xiaoling XU*, Jiahua BAI, Yan LIU** (*Presenting author; Institute of Animal Husbandry and Veterinary Medicine, Beijing Academy of Agriculture and Forestry Sciences, China)
N-octanoylated ghrelin peptide inhibits bovine oocyte meiotic resumption *in vitro*
- JKCP-17 Qianhong YE^{1,2}, Xiangfang ZENG^{1,2*}, Shuang CAI^{1,2}, Xiangzhou ZENG^{1,2}, Changchuan YE^{1,2}, Meixia CHEN^{1,2}, Changhua LAI^{1,2}, Fenglai WANG^{1,2}, Shiyan QIAO^{1,2}** (*Presenting author; ¹State Key Laboratory of Animal Nutrition, Ministry of Agriculture Feed Industry Centre, China Agricultural University, ²Beijing Key Laboratory of bio-feed additives, China)
Maternal short and medium chain fatty acid supply during early pregnancy improves embryo survival through enhancing progesterone synthesis in rats