

International Symposium on "Environmental Response Mechanisms in Plants and Animals"

Date: January 23, Thursday, 2020

Venue: Galaxy Hall (Ginga Hall), Faculty of Engineering, Iwate University,
Ueda Campus, Morioka, Japan



Organized by: Faculty of Agriculture, Iwate University &
The United Graduate School of Agricultural Sciences, Iwate University



PROGRAM:

Morning Session (Animal Science): 8:40-12:00

8:40-8:45- Opening remarks - Drs. Masao Miyazaki and Abidur Rahman

8:45-9:25 -SA 1- How do mammalian pheromones coordinate flexible responses to the social environment?

Dr. Jane Hurst - Mammalian Behaviour & Evolution Group, Institute of Integrative Biology, University of Liverpool, UK

9:25-9:55 -SA 2- The application of novel methods of mass spectrometry in the analysis of biological systems

Dr. Robert J Beynon- Institute of Integrative Biology, University of Liverpool, UK

9:55-10:25 -SA 3- Odorant receptor class choice and olfactory behaviors

Dr. Junji Hirota - Center for Biological Resources and Informatics, Tokyo Institute of Technology, Japan

10:25-10:40- Tea Break

10:40-11:10 -SA 4- Dog (*Canis familiaris*) -Human interaction and their domestication

Dr. Takefumi Kikusui- School of Veterinary Medicine, Azabu University, Sagamihara, Japan

Oral presentation by students -I

11:10-11:20 -OA 1- BAC library construction and BAC-FISH mapping in the eastern pale clouded

yellow butterfly, *Colias erate*

Mizuki Ohno-United Graduate School of Agricultural Sciences, Iwate University, Japan

11:20-11:30 -OA 2- Eukaryotic homologs of CdsA possess the ability to biosynthesize glycolipid MPIase involved in membrane protein integration and preprotein translocation

Yusei Sekiya- Faculty of Agriculture, Iwate University, Japan

11:30-11:40 -OA 3- New immortalized human follicle dermal papilla cells with a constant expression of testosterone receptor keeps normal response against the dihydrotestosterone

Kohei Takahashi- Graduate School of Science and Engineering, Iwate University, Japan

11:40-11:50 -OA 4- Analysis of transgenic mice upregulating the feline pathway for downregulating the cholesterol biosynthesis in cats

Manon Miura- Faculty of Agriculture, Iwate University, Japan

11:50- 12:00 -OA 5- The neuronal system for euphoria is important for the matatabi-response in cat.

Reiko Uenoyama- Faculty of Agriculture, Iwate University, Japan

12:00-13:50- Lunch and Poster session

Afternoon Session (Plant Science): 14:00-17:40

14:00-14:40 -SP 1- To grow or not to grow: what makes roots respond to environmental signals?

Dr. Wolfgang Busch- Plant Molecular and Cellular Biology Laboratory, Salk Institute for Biological Studies, La Jolla, California, USA

14:40-15:10 -SP 2- Regulation of polar auxin transport in response to high salinity

Dr. Masahiko Furutani- College of Life Sciences & Haixia Institute of Science and Technology, Fujian Agriculture and Forestry University, Fujian, China

15:10-15:40 -SP 3- Plant responses to complex natural environments captured by field transcriptomics

Dr. Atsushi J. Nagano- Faculty of Agriculture, Ryukoku University, Japan

15:40-16:10 -SP 4- Three unusual things about how roots of *Arabidopsis thaliana* acclimate to temperature

Dr. Tobias I Baskin- Biology Department, University of Massachusetts, Amherst, MA, USA

16:10-16:30- Tea break

Oral presentation by students -2

16:30-16:40 -OP 1- High respiration rate per dry mass of beech seedlings stimulates early budburst after three years shading

Citra Gilang Qur'ani- The United Graduate School of Agricultural Science, Iwate University, Japan

16:40-16:50 -OP 2- Understanding the mechanisms of action of auxinic herbicides dicamba and picloram in inhibiting *Arabidopsis* root growth

Haruna Sakai- Graduate School of Arts and Science, Iwate University, Japan

16:50-17:00 -OP 3- Chromosome 5 and 6 derived from African Rice Enhances Phenotypic Plasticity

Yusuke Masuya- United Graduate School of Agricultural Sciences, Iwate University, Japan

17:00-17:10 - OP 4- Intraspecific variations in leaf phenology and frost hardiness of leaves in a deciduous tree, *Fagus crenata*, in relation to the frost regime in spring and autumn

Saki Sugimoto- The United Graduate School of Agricultural Sciences, Iwate University, Japan

17:10-17:20 -OP 5- Understanding the molecular mechanism of cellular detoxification and vacuolar transport of cesium in Arabidopsis

Keita Ito-Graduate school of Arts and Sciences, Iwate University, Morioka, Japan

17:20-17:40- Award Session and Closing remarks -Dr. Matsuo Uemura

19:00- 21:00- Symposium Dinner (Metropolitan hotel)

Posters

Animal Science

AP 1. Distribution of cells expressing vomeronasal receptors in the olfactory organ of turtle
Sayed Sharif Abdali- Laboratory of Veterinary Anatomy, Faculty of Agriculture, Iwate University, Japan

AP 2. The effect of various dietary protein sources on the gene expression of fructosamine kinase in various tissues of chickens

Chie Takita- Department of Agriculture, Graduate School of Arts and Sciences, Iwate University, Japan

AP 3. Cloning and heterologous expression of protein-oxidizing enzyme gene from *Penicillium citrinum* AIU Z-26-4-8

Daiki Takashima- Department of Biological Chemistry and Food Science, Iwate University, Japan

AP 4. Starvation causes the alteration of the pre-rRNA accumulation in *C. elegans*

Yuki Osaki- Hirosaki University, Hirosaki, Japan

AP 5. Microbial production of bioplastic from brown seaweeds

Akira Matsumoto- Department of Biological Chemistry and Food Science, Iwate University, Japan

AP 6. Reconstitution of the TAT (Twin-Arginine Translocation) pathway that depends on both TatABC and glycolipid MPIase.

Kotoka Kanno- Department of Biological Chemistry and Food Sciences, Iwate University, Japan

AP 7. Liver-type fatty acid-binding protein (L-FABP) expressed in kidney and excreted into urine in cats with kidney disease

Rieko Katayama- Cooperative Department of Veterinary Clinical Medicine, Faculty of Agriculture, Iwate University, Japan

AP 8. Enzymatic functions of acidic mammalian chitinase in the mouse stomach
Misa Ohno- Department of Biological Chemistry and Food Sciences, Faculty of Agriculture, Iwate University, Japan.

AP 9. Chemical compositions of lipid droplets accumulated in proximal convoluted tubular epithelial cells of domestic cats
Ryunosuke Sato- Faculty of Agriculture, Iwate University, Japan

AP 10. Serum metabolomics of neonatal calves before and after first colostrum ingestion
Tamako Miyazaki- Department of Biological Chemistry and Food Science, Faculty of Agriculture, Iwate University, Japan

AP 11. Glycero- and sphingo-phospholipid differ in their effects on the function of the tight junction in human epidermal keratinocyte
Wako Fujimori- Graduate School of Arts and Sciences, Iwate University, Morioka, Japan

AP 12. *In vitro* analysis of glycolipid MPIase and protein YidC involved in membrane protein insertion
Yuta Endo- The United Graduate School of agricultural Sciences, Iwate University, Iwate, Japan.

AP 13. Intracellular localization of Kita-Kyushu Lung Cancer Antigen-1 (KK-LC-1) and identification of associated proteins with KK-LC-1 by coimmunoprecipitation
Haruki Ohmiya- Biochemical laboratory, Faculty of Agriculture, Iwate University, Japan

Plant Science

PP 1. Understanding the role of actin in cold response of Arabidopsis
Aya Hanzawa- Department of Plant Bioscience, Faculty of Agriculture, Iwate University, Japan

PP 2. Transcriptome analysis reveals thermogenic tissue-specific gene expression of *selenium binding protein 1* in skunk cabbage, *Symplocarpus renifolius*
Haruka Tanimoto- Graduate School of Arts and Sciences, Iwate University, Japan

PP 3. Physiological and molecular regulation of cold response in Tomato
Hiroki Takahashi- Department of plant bio science, Faculty of Agriculture, Iwate university, Japan

PP 4. Comparative phosphoproteomic study of Arabidopsis microsomal membrane fraction in response to cold treatment
Kamal Md Mostafa- United Graduate School of Agricultural Sciences, Iwate University, Japan

PP 5. Understanding the molecular mechanism of 2,4-Dichlorophenoxyacetic acid-induced depolymerization of actin
Kenji Sugita- Graduate School of Arts and Sciences, Iwate University, Japan

PP 6. The establishment of a high frequency regeneration system of the homozygous genotype of apples

Li Furong- United Graduate School of Agricultural Sciences, Iwate University, Japan

PP 7. Exploration of genes controlling host-specific root nodule symbiosis by GWAS

Makoto Taniuchi- Graduate School of Art and Science, Division of Agriculture, Iwate University, Japan

PP 8. Lateral root development in *Arabidopsis* is regulated by isovariant-specific actin-mediated redistribution of auxin

Marika Yamauchi- Graduate School of Arts and Sciences, Iwate University, Japan

PP 9. Development of an aroma designer to identify essential odorants from citrus fruit

Mayuki Toisawa- Department of Biological Chemistry and Food Science, Faculty of Agriculture, Iwate University, Japan

PP 10. Chemical Constituents of Basidiomycete *Omphalotus japonicus*

Satoki Aoki- The United Graduate School of Agricultural Science, Iwate University, Iwate, Japan

PP 11. Can mixed planting of near isogenic lines with different maturity reduce improve rice productivity?

Seiji Oikawa- Graduate School of Arts and Sciences, Iwate University, Japan

PP 12. Ectopic expression of *Arabidopsis RCI2A* gene confers cold tolerance in tomato

Velu Sivankalyani- Plant Biotechnology Laboratory, Department of Biotechnology, Bharathiar University, Coimbatore, Tamil Nadu, India

PP 13. High temperature response in *Arabidopsis* is regulated by isovariant specific actin

Sumaya Parveen- United Graduate School of Agricultural Sciences, Iwate University, Japan