

# Agenda for the 15<sup>th</sup> Korea-Japan Joint Seminar on Space Environment Utilization Research

**Date: September 20-21, 2018**

Venue: Graduate School of Life Sciences, Tohoku University  
2-1-1 Katahira, Aoba-Ku, Sendai, Miyagi, Japan 980-8577

Chairs of the Seminar

**Prof., Makoto ASASHIMA and Prof. Inho CHOI**

■ **DAY 1 - Thursday, September 20, 2018**

**08:30-09:00 Seminar Registration**

**09:00-09:05 Opening and Welcome Remarks**

**Moderator: Dr. Toru SHIMAZU**

**Spec. Res. Prof., Makoto ASASHIMA, Teikyo University**

**Prof. Emer., The University of Tokyo**

**09:05-09:35 Seminar Perspectives**

**09:05-09:20**

Space environment utilization research in Korea: collaborations with Japanese groups

**Prof. Inho CHOI, Yonsei University**

**09:20-09:35**

Perspectives for the 15th Korea-Japan Joint Seminar on Space Environment Utilization Research

**Spec. Res. Prof., Makoto ASASHIMA, Teikyo University**

**Prof. Emer., The University of Tokyo**

**09:35-10:05 Space Program Introduction**

**Session Chair: Prof. Makoto ASASHIMA**

**09:35-09:50**

The Latest Status of Kibo Utilization Strategy and Activities in Japan

**Ms. Shiho OGAWA, Director, JEM Utilization Center, Human Spaceflight Technology Directorate, JAXA**

09:50-10:05

Past and Future Manned Space Program in Korea – Personal View

**Dr. Gi-Hyuk CHOI, Director, Convergence Technology Research Center, KARI**

**10:05-10:25 Photo Session and Coffee Break**

**10:25-12:05 Life Science, Molecular Biology & Biochemical Engineering ( I )**

**Session Chair: Assoc. Prof. Jun HIDEEMA**

10:25-10:45

Reactive oxygen species up-regulate expression of muscle atrophy-associated ubiquitin ligase Cbl-b in rat L6 skeletal muscle cells.

**Dr. Takayuki UCHIDA, Tokushima University**

10:45-11:05

Aging and nervous system development in low and high gravity environments

**Prof. Jin LEE, Yonsei University**

11:05-11:25

Spaceflight experiments using the nematode *C. elegans*

**Prof. Atsushi HIGASHITANI, Tohoku University**

11:25-11:45

Journey to ISS experiment

**Prof. Chang-Soo LEE, Chungnam National University**

11:45-12:05

Toward the Elucidation of Cell Gravi-Sensing in Space.

**Prof. Masahiro SOKABE, Nagoya University**

**12:05-13:50 Lunch Break at Restaurant Hagi, University House Katahira (A01)**

**[Invitees Only]**

**13:50-15:10 Life Science, Molecular Biology & Biochemical Engineering ( II )**

**Session Chair: Prof. Atsushi HIGASHITANI**

13:50-14:10

Acute transcriptional control specific to osteoblasts/osteoclasts in medakafish immediately after exposure to microgravity

**Dr. Masahiro CHATANI, Showa University**

14:10-14:30

Role of AMPK in Autophagosome maturation

**Prof. Junsoo PARK, Yonsei University**

14:30-14:50

Space Stay of Zebrafish

**Prof. Atsuko SEHARA, Kyoto University**

14:50-15:10

Broadening the Base of Space Experiments

**Dr. Muneo TAKAOKI, Miina Sciences**

**15:10-15:50 Material Science**

**Session Chair: Dr. Gi-Hyuk CHOI**

15:10-15:30

Development of New Brazing Material from OXYTHERM Project

**Prof. Joonho LEE, Korea University | Dr. Juergen BRILLO, DLR**

15:30-15:50

Current status of thermophysical properties measurements by electrostatic levitation furnace (ELF) in ISS

**Prof. Masahito WATANABE, Gakushuin University**

**15:50-16:10 Coffee Break**

**16:10-17:30 Combustion**

**Session Chair: Prof. Kaoru MARUTA**

16:10-16:30

Flame Spread over Electrical Wire with Applied AC Electric Field

**Prof. Jeong PARK, Pukyong National University**

16:30-16:50

Extinction Limit of Spreading Flame over Electric Wire Insulation

**Prof. Osamu FUJITA, Hokkaido University**

16:50-17:10

Low-speed counterflow flame experiment under microgravity toward comprehensive combustion limit theory

**Prof. Kaoru MARUTA, Tohoku University**

17:10-17:30

Microgravity Experiments on Combustion

**Prof. Suk Ho CHUNG, King Abdullah University of Science & Technology**

**17:30-17:40 Informing and Adjourn**

18:00-20:00(TBD) Reception at Restaurant Hagi, University House Katahira (A01) [Invitees Only]

**■ DAY 2 - Friday, September 21, 2018**

**09:00-09:40 Invited Lecture**

Moderator: Dr. Toru SHIMAZU

09:00-09:20

Invited Lecture 1: Prof. Chris WOLVERTON, Department of Botany and Microbiology, Ohio Wesleyan University

09:20-09:40

Invited Lecture 2: Prof. Ismail TURKAN, Department of Biology, Faculty of Science, Ege University

**09:40-09:45 5 Min Break**

**09:45-10:45 Summary and Discussion**

Moderator: Dr. Toru SHIMAZU

**10:45-11:00 Closing Comments**

Co-Chairs: Prof. Inho CHOI | Prof. Makoto ASASHIMA

**11:00 Adjourn**

[Poster]

Effects of hypergravity on changes in serotonin receptor expression of vestibular nuclei in rats

Prof. Kyu-Sung KIM, Inha University Hospital