Agenda for the 15th 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
Past and Future Manned Space Program in Korea – Personal View
Dr. Gi-Hyuk CHOI, Director, Convergence Technology Research Center, KARI

Photo Session and Coffee Break

Life Science, Molecular Biology & Biochemical Engineering (I)
Session Chair: Assoc. Prof. Jun HIDE MA

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

Aging and nervous system development in low and high gravity environments
Prof. Jin LEE, Yonsei University

Spaceflight experiments using the nematode C. elegans
Prof. Atsushi HIGASHITANI, Tohoku University

Journey to ISS experiment
Prof. Chang-Soo LEE, Chungnam National University

Toward the Elucidation of Cell Gravi-Sensing in Space.
Prof. Masahiro SOKABE, Nagoya University

Lunch Break at Restaurant Hagi, University House Katahira (A01) [Invitees Only]

Life Science, Molecular Biology & Biochemical Engineering (II)
Session Chair: Prof. Atsushi HIGASHITANI

Acute transcriptional control specific to osteoblasts/osteoclasts in medakafish immediately after exposure to microgravity
Dr. Masahiro CHATANI, Showa University

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