

Agenda for the 13th Korea-Japan Joint Seminar on Space Environment Utilization Research

**New dawn in Space Science
~ New approaches at Space Life Science Using Space Technology ~**

Date: October 25, 2016

Venue: Hokkaido University, Graduate School and School of Engineering
Kita 13, Nishi 8, Kita-ku, Sapporo, Hokkaido 060-8628, Japan

Chairs of the Seminar

Prof. Makoto ASASHIMA and Prof. Inho CHOI

09:00 ~ 09:30

- **Seminar Registration**

09:30 ~ 09:35

- **Opening and Welcome Remarks**

Opening and Welcoming Remarks

Prof. Makoto ASASHIMA, Executive Vice-President of Tokyo University of Science

09:35 ~ 10:05

- **Seminar Perspectives**

09:35-09:50

ISS "KIBO" Utilization Research in Japan

Prof. Makoto ASASHIMA, Executive Vice-President of Tokyo University of Science

09:50-10:05

Research collaboration on space environment utilization - the ultimate goal of
Korea-Japan Joint Seminar

Prof. Inho CHOI, Yonsei University

10:05 ~ 10:35

- **Space Program Introduction**

Session Chair: Mr. Fumiaki TANIGAKI

10:05-10:20

The Latest Status of Asian Kibo Utilization Activities

Mr. Fumiaki TANIGAKI, JAXA

10:20-10:35

Updates for Space Experiment Activities in Korea

Dr. Joohee LEE, KARI

10:35 ~ 10:50

■ **Coffee Break**

10:50 ~ 11:35

■ **Combustion**

Session Chair: Seul-Hyun PARK

10:50-11:05

Experimental Study on Spreading Flame over Slanted Polyethylene Insulated Electrical Wire with AC Electric Field

Prof. Jeong PARK, Pukyong National University

11:05-11:20

Difference of Solid Material Flammability under Normal- and Micro-gravity

Prof. Osamu FUJITA, Hokkaido University

11:20-11:35

Effects of inert substitutions on ignition and flame spread on a thin wire under elevated oxygen concentrations and reduced atmospheric pressures

Prof. Seul-Hyun PARK, Chosun University

11:35 ~ 12:20

■ **Life Science, Molecular Biology & Biochemical Engineering (I)**

Session Chair: Prof. Masaru TANOKURA

11:35-11:50

Protein crystallization under quasi-microgravity conditions

Prof. Masaru TANOKURA, The University of Tokyo

11:50-12:05

The Activation of mTOR in response to the Loss of Skeletal Muscle in a Hindlimb-Suspended Rat Model

Ms. Hana LEE, Yonsei University

12:05-12:20

CsPINs experiments on ISS: The gravity- and water-induced changes in expression and/or localization of auxin efflux carriers in cucumber seedlings

Prof. Hideyuki TAKAHASHI, Tohoku University

12:20 ~ 13:20

■ **Lunch Break**

13:20 ~ 14:05

■ **Material Science**

Session Chair: Prof. Won-Seung CHO

13:20-13:35

Interfacial phenomena and thermophysical properties of molten steel and oxides

Prof. Masahito WATANABE, Gakushuin University

13:35-13:50

BaO-TiO₂ based Glasses Prepared by Aerodynamic Levitator

Prof. Won-Seung CHO, Inha University

13:50-14:05

Numerical analyses of liquid-gas two-phase flows with moving solid objects

Assoc. Prof. Toshio TAGAWA, Tokyo Metropolitan University

14:05 ~ 14:20

■ **Coffee Break**

14:20 ~15:05

■ **Life Science, Molecular Biology & Biochemical Engineering (II)**

■ **Session Chair: Prof. Hideyuki TAKAHASHI**

14:20-14:35

Nutritional approaches for unloading-mediated muscle atrophy

Prof. Takeshi NIKAWA, Tokushima University

14:35-14:50

Generation of Droplets by Negative Pressure-Induced Flow without External Apparatuses

Mr. Dong-Yeong KIM, Chungnam National University

14:50-15:05

Initial Step of Gravi-Sensing in Mesenchymal Stem Cells

Dr. Takeshi KOBAYASHI and Prof. Masahiro SOKABE, Nagoya University

15:05 ~ 15:45

■ **Closing Comment / Seminar Summary**

Prof. Makoto ASASHIMA, Executive Vice-President of Tokyo University of Science

Prof. Inho CHOI, Yonsei University

■ **Photo Session**