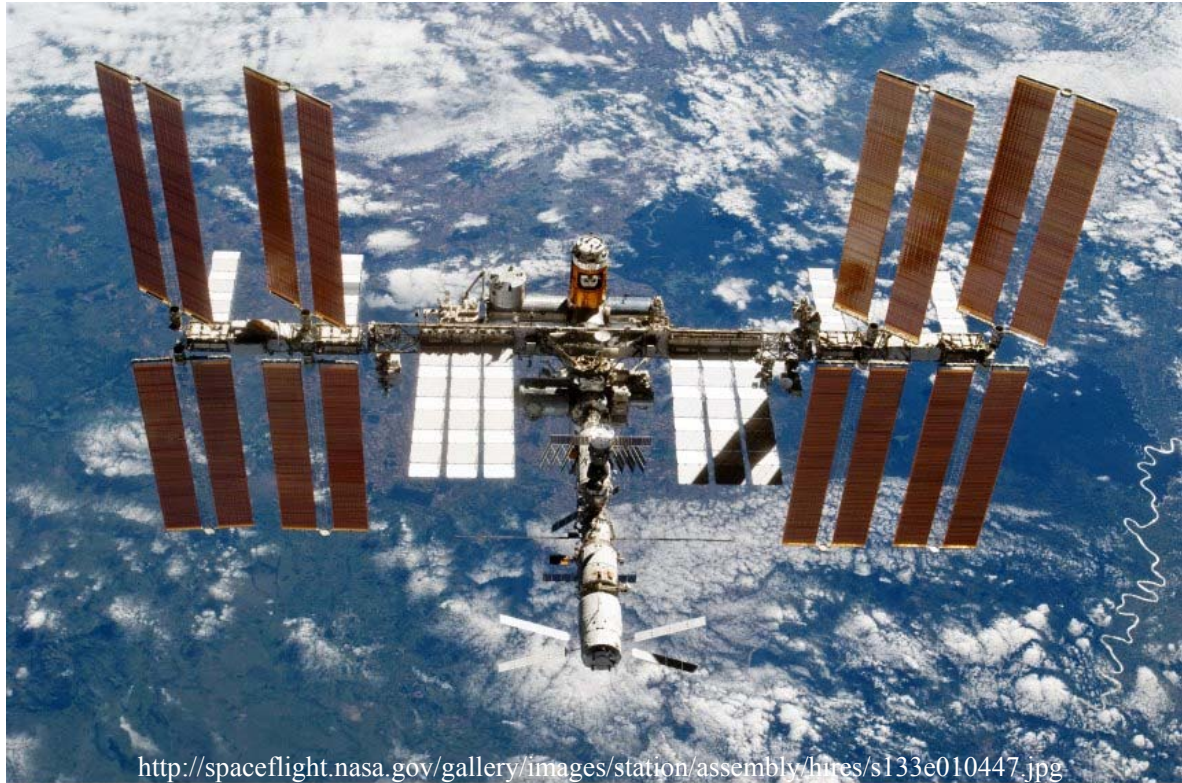


10th Japan-Korea Joint Seminar on Space Environment Utilization Research



September 12th and 13th 2013
Korea University, Seoul, Korea

Organized by the **Korean Microgravity Society (KMS)**



Sponsored by **Korea Aerospace Research Institute (KARI)**

Agenda for the 10th Japan-Korea Joint Seminar on Space Environment Utilization Research

September 12 – 13, 2013

Korea University

Hana Square, Media Room
145 Anam-ro Seongbuk-gu, Seoul, Korea, 136-701

Seminar Coordination

Prof. Chi-Hwan LEE / Prof. Makoto ASASHIMA
Dr. Gi-Hyuk Choi, KARI / Mr. Yoshiya Fukuda, JAXA

September 12 (Day 1)

09:00-09:30

■ Seminar Registration

09:30-09:40

■ Opening and Welcome Remarks

Opening and Welcoming Remarks

Prof. Soo-Won Chae, Dean/College of Engineering, Korea University

09:40-10:10

■ Seminar Perspectives

09:40-09:55

Objective of the Seminar: [Perspective of Microgravity Science Research in Korea](#)

Prof. Chi-Hwan LEE, Inha University

09:55-10:10

Objective of the Seminar: [Perspective of ISS projects in past, present and future in JAPAN](#)

Prof. Makoto ASASHIMA, University of Tokyo

10:10-10:40

■ Space Program Introduction

10:10-10:25

[KARI's Space Program Update](#)

Dr. Song-Doug KANG, KARI

10:25-10:40

[Science Accomplishments in ISS/Kibo 2012-2013](#)

Dr. Muneo TAKAOKI, JAXA

10:40-10:55

Coffee Break

10:55-12:30

■ Life Science, Molecular Biology & Biomedical Science (I)

*Session Chair: Prof. Inho Choi

10:55-11:10

[Anti-muscle atrophy peptides/proteins](#)

Prof. Takeshi Nikawa, University of Tokushima

11:10-11:25

[Functional roles of chaperone molecules \(HSP70\) for muscle atrophy inhibition: future implication](#)

Prof. Inho Choi, Yonsei University

11:25-11:40

[Protein Crystallization for the High-Resolution Structural Biology in Microgravity Environment](#)

Prof. Masaru Tanokura, University of Tokyo

11:40-11:55

[An Increase in the Accumulation of Adipose Tissue in Growing Male Mice Caused by Disturbances in the Sleep-Wake Cycle following Night-shifts](#)

Prof. Han-sung Kim, Yonsei University

11:55-12:10

[Space medicine activities in JAXA](#)

Medical Dr. Hiroshi OHSHIMA, JAXA

12:10-12:25

[Autophagosome formation under microgravity](#)

Prof. Junsoo Park, Yonsei University

12:25-13:30

Lunch Break

13:30-:15:00

■ **Life Science, Molecular Biology & Biomedical Science (II)**

*Session Chair: Prof. Chang-Soo Lee

13:30-13:45

[Dietary flavonoids for disuse muscle atrophy](#)

Prof. Junji Terao, University of Tokushima

13:45-14:00

[The role of uncoupling protein 3 regulating calcium ion uptake into mitochondria](#)

Ms. Marie Haruna, University of Tokushima Graduate School

14:00-14:15

[Bacterial chemotaxis on microfluidic system](#)

Prof. Chang-Soo Lee, Chungnam National University

14:15-14:30

[Bacterial monitoring in the International Space Station – “Kibo”](#)

Prof. Nobuyasu Yamaguchi, Osaka University

14:30-14:45

[Cycle ergometer combined with neuromuscular electrical stimulation of antagonist](#)

Mr. Masayuki Omoto, Kurume University

14:45-15:00

[Bacterial motility in confined 3-dimensional environment](#)

Prof. Chang-Soo Lee, Chungnam National University

15:00-15:15

Coffee Break

15:15-17:55

■ **Material and Combustion Science & Others**

*Session Chair: Prof. Osamu Fujita

15:15-15:30

[Study of interfacial phenomena between liquid Fe and slag system by using electrostatic furnace \(ELF\) on ISS](#)

Prof. Masahito Watanabe, Gakushuin University

15:30-15:45

[Challenges in thermophysical property measurements of molten metals in microgravity](#)

Prof. Joonho Lee, Korea University

15:45-16:00

[Application of container-less melting method in space -Electrostatic Levitation Furnace-](#)

Ms. Haruka Tamaru, JAXA

16:00-16:15

[Microstructure of Rapidly Quenched YAG and YAG: Rare Earth Oxide Glass-ceramics Prepared by Aerodynamic Levitation](#)

Prof. Won-Seung Cho, Inha University

16:15-16:30

[Ultra/Nano precision technologies for Optical Fabrication](#)

Dr. Hitoshi Ohmori, RIKEN

16:30-16:45

Coffee Break

16:45-17:00

[Solid combustion research in microgravity as fundamentals for fire safety in space](#)

Prof. Osamu Fujita, Hokkaido University

17:00-17:15

[Soot nanostructure collected from microgravity ethanol droplet flames](#)

Dr. Seul Hyun Park, KARI

17:25-17:40

[Network centric operation: Its essence and applications](#)

Dr. Yoshinori Fujimori, JAXA Retiree

17:40-17:55

[The critical Marangoni number dependence with liquid bridge diameter in high Prandtl fluids](#)

Prof. Shinichi YODA

■ Relocation to the reception place (**Holiday Inn Hotel**)

Free transportation service available

18:30-21:00

■ **Welcome Dinner hosted by KMS & KARI**

September 13 (Day 2)

09:00-12:30

■ **Celebrating 10 years of Japan-Korea Joint Seminar on Space Environment Utilization Research**

10th memorial event Cultural Tour (Departing from the Hotel)

13:00-14:00

■ **Farewell Lunch and Workshop Closing**

Area: Near Gyeongbokplalce

※ How to get to the workshop hotel

(Please visit <http://www.holiday.co.kr/jap/index.htm> for more information)

➔ **From Incheon International Airport to Holiday Inn Seongbuk**

Please take an airport limousine bus from the Incheon int'l airport, which is one of the fastest and most convenient ways to the hotel.

1. Buy limousine bus tickets at the ticket office, bound for Dobong/ Seongbuk(Bus No. 6101)
- Tickets can be purchased both inside and outside of the airport
2. Exit at Gate 3 or 10,
3. Board a bus bound for Dobong/ Seongbuk at either bus stop 3B or 10A,

* Main stops : Incheon International Airport → Gimpo International Airport → Jeongneung → Gireum Station → Holiday Inn Seoul Seongbuk

* Total time is approximately 1 hour and 10 minutes

