

# Symposia

## Symposium 1

Monday, November 5 (13:10-15:10)

### *Next-Generation Research in Glycan-based Drug Discovery*

- Organizers: Yasunori Chiba (National Institute of Advanced Industrial Science and Technology (AIST))  
Hiroaki Tateno (National Institute of Advanced Industrial Science and Technology (AIST))
- S1-1: Hiroaki Tateno (National Institute of Advanced Industrial Science and Technology (AIST))  
S1-2: Morihisa Fujita (Jiangnan University)  
S1-3: Yoichiro Harada (Kagoshima University)  
S1-4: Kenichi Suzuki (Gifu University)

Glycosylation is one of the major post-translational modifications which plays diverse roles, in cell signaling, molecular recognition, immunity, and inflammation. Glycan structure of the biologics is also known to affect their efficacy and safety. This session will focus on the recent approaches toward glycan-based drug discovery.

## Symposium 2

Monday, November 5 (15:20-17:20)

### *Recent Advancements in Research on Aggregation and Immunogenicity of Therapeutic Proteins*

- Organizers: Susumu Uchiyama (Osaka University)  
Akiko Ishii-Watabe (National Institute of Health Sciences (NIHS))
- S2-1: Akiko Ishii-Watabe (National Institute of Health Sciences (NIHS))  
S2-2: Ruckman S. De Silva (Food and Drug Administration (FDA))  
S2-3: Srivalli Telikepalli (National Institute of Standard Technology (NIST))  
S2-4: Constanze Helbig (Coriolis Pharma Research GmbH)  
S2-5: Susumu Uchiyama (Osaka University)

It has been recently recognized that protein aggregates in biopharmaceuticals have potential to elicit immune responses and could possess the immunogenicity. Whereas, owing to recent development of analytical methods, aggregates ranging from nanometer to micron range can be properly monitored. In this symposium, current situation regarding to protein aggregation will be focused from two aspects, one is the characterization and control strategy of the aggregates, and another is the regulation of the aggregates.

## Symposium 3

Tuesday, November 6 (9:00-11:00)

### *Scalable Manufacturing Process for Cell Therapies*

- Organizer: Shinobu Kuwae (Takeda Pharmaceutical Co., Ltd.)
- S3-1: Katsuhisa Matsuura (Tokyo Women's Medical University)  
S3-2: Steve Oh (Bioprocessing Technology Institute)  
S3-3: Yukitaka Ito (Megakaryon Corporation)

For allogeneic cell therapies to reach their therapeutic potential, development of scalable and robust manufacturing process is an essential element to success. In this session the three presenters will provide how they overcame their challenges from stem cell expansion to differentiation by using a scalable bioreactor process.

## **Symposium 4**

**Tuesday, November 6 (15:50-17:50)**

### ***Biopharmaceutical Production—From Cell Line Development to Culture and Purification—***

- Organizers: Noriko Yamano-Adachi (Osaka University)  
Shinya Takuma (Chugai Pharmaceutical Co., Ltd.)  
Satoshi Oguchi (Kyowa Hakko Kirin Co., Ltd.)
- S4-1: Nuša Pristovšek (Technical University of Denmark)  
S4-2: Takeshi Yamamoto (Fujifilm Corporation)  
S4-3: Shusuke Hira (Kyowa Hakko Kirin Co., Ltd.)  
S4-4: Tetsuya Wakabayashi (Chugai Pharmaceutical Co., Ltd.)  
S4-5: Yoshihisa Kishiguchi (Chugai Pharma Manufacturing Co., Ltd.)

Biopharmaceutical industry is growing rapidly and is expected for further expansion in the future. Meanwhile, cost reduction due to increase of productivity is a challenge for expensive biopharmaceuticals. Recent advances in technology such as cell line modification, innovative gene transfer methods, newly developed raw materials and evolved production system are leading to dramatically increase the productivity. This session will cover the process of biopharmaceutical production —from cell line development to culture and purification— and provide lectures of cutting-edge technologies in the world.

## **Symposium 5**

**Wednesday, November 7 (10:20-12:00)**

### ***New Era Application of Bioresources***

- Organizer: Yoshinori Katakura (Kyushu University)
- S5-1: Hideyuki Ito (Okayama Prefectural University)  
S5-2: Yuji Sawada (RIKEN)  
S5-3: Hideki Hirakawa (Kazusa DNA Research Institute)  
S5-4: Takahiro Nakamura (Kyushu University)

In recent years, many kinds of analytical methods and technologies have been established to analyze products and metabolites of bioresources and create novel bioresources. This symposium will focus on the recent development and approaches in this topic.