# Workshop on Frontiers in Phosphatase Research and

# Drug Discovery (ICPP13)

### October 23<sup>rd</sup> (Tue) – 25th (Thu), 2018 Akio Suzuki Memorial Hall, Tokyo Medical and Dental University (TMDU)

### Organizers

Takeshi Tsubata

Maja Köhn

### JAPPR Organizing Committee

Hiroshi Ohnishi Masaharu Noda Ryuichi Sakai Hitoshi Nakagama Masanori Hatakeyama Tatsuya Maeda

**Sponsors** (alphabetical order)

- Deutsche Forschungsgemeinschaft (German Research Foundation) (DFG)
- · Japanese association for protein phosphatase research (JAPPR)
- · Japan Society for the Promotion of Science (JSPS)
- · Joint Usage/Research Program of Medical Research Institute,

Tokyo Medical and Dental University (TMDU)

Grant Funding (alphabetical order)

- The Naito Foundation Japan
- $\boldsymbol{\cdot}$  The NOVARTIS Foundation (Japan) for the Promotion of Science
- $\boldsymbol{\cdot}$  Terumo Foundation for Life Science and Arts



### Welcome Message

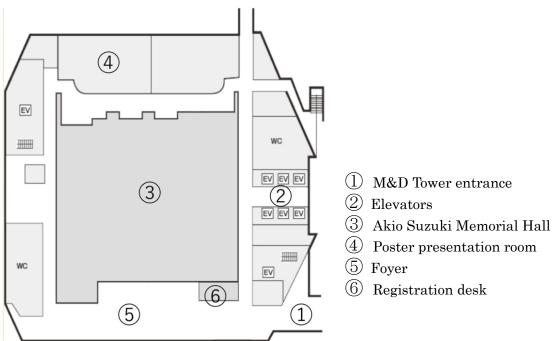
Takeshi Tsubata Maja Köhn *Organizers* 

Dear participants and colleagues,

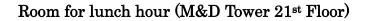
On behalf of the organizing committee, we would like to welcome you to "Workshop on Frontiers in Phosphatase Research and Drug Discovery". This conference will be held at Akio Suzuki Memorial Hall, Tokyo Medical and Dental University (TMDU) in Tokyo from October 23th (Tue) to 25th (Thu), 2018.

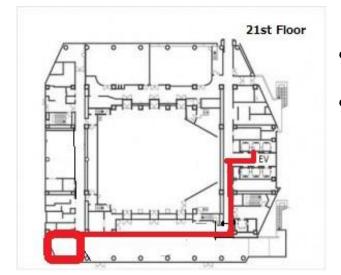
In the past two decades, Japanese Association for Protein Phosphatase Research (JAPPR) organized international conferences on protein phosphatase (ICPP) every two years. For further development, we are organizing this workshop on phosphatase research this year as a bilateral seminar supported by Japan Society for the Promotion of Science (JSPS) and German Research Foundation (Deutche Forschungsgemeinshaft: DFG). We also invite international participants by obtaining support from JAPPR and TMDU. We are welcoming scientists working on phosphatase research from all over the world.

Phosphatases are structurally more diverse than kinases, and development of inhibitors and determination of phosphatase substrates are more difficult than those of kinases. These properties have delayed phosphatase research compared to kinase research. However, it is now established that phosphatases are tightly regulated and that they show a degree of substrate specificity similar to that of kinases. New developments regarding the roles of phosphatases in various diseases and the emergence of resistance against kinase inhibitors in cancer underscore the importance of phosphatases in cellular processes and as potential drug targets. In this workshop, physiological and pathological functions of phosphatases at the molecular, cellular and organ levels are discussed for better understanding of functions of phosphatases, and to identify suitable target molecules for drug discovery. Moreover, actual experiences in drug discovery will also be exchanged. International networks and collaborations initialized by this workshop will further promote phosphatase research and drug discovery, which will be a major topic in the coming decade.



Tokyo Medical and Dental University M&D Tower 2nd Floor





- The lunch box will be served in the lunch room on Oct 23<sup>rd</sup> and 24<sup>th</sup>.
- Please use the elevators (2) to the 21<sup>st</sup> floor. Follow the line on the map to the room.

### **General Information**

- > Poster presentation: 12:00 Oct 23<sup>rd</sup>~17:30 Oct 24<sup>th</sup> at poster presentation room (④).
- ▶ Poster session:  $12:45 \sim 14:45$ , Oct  $24^{\text{th}}$  at poster presentation room (④).
- > Group photo: 12:00 (after session 1). Oct  $23^{rd}$  at the foyer (5).
- Welcome Reception: 18:30~, Oct 24<sup>th</sup> at Faculty Lounge (M&D Tower 26F). Please use the elevators (2) to the 26<sup>th</sup> floor.

### Information for Participants

1. Registration

Registration desk is located at the entrance of Akio Suzuki Memorial Hall, Tokyo Medical and Dental University.

☆ Registration Desk Opening Hours:

Date	Hours
October 23 <sup>rd</sup> (Tue)	08:30 - 17:45
October 24 <sup>th</sup> (Wed)	08:30 - 18:00
October 25 <sup>th</sup> (Thu)	08:30 - 11:45

- 2. There would be no cloakroom. As you move from one place to another, please make sure to keep your belongings with you at all time.
- 3. No drinking or eating are allowed in Akio Suzuki Memorial Hall or poster presentation room.
- 4. Prohibitions: Photography, video recording, sound recording, and twittering the presented data are prohibited.
- 5. Wi-Fi service is available in Akio Suzuki Memorial Hall.
  - SSID is TMDU\_guest

Password will be available at the registration desk throughout the time of conference.

### Session Chair and Presentation Guidelines

#### Session Chair Guidelines

- 1. Arrive Early: We kindly ask chairs to arrive at the session room about 5 minutes prior to the start of the session.
- 2. Start on time and stick to the schedule.

#### **Oral Presentation Guidelines**

- 1. Language: English
- 2. Allotted Time
- Presentation: Please refer to the program for each presentation timeline. Toward the end of each presentation, 5 minutes of Q&A time is allotted.

- Short talk presentation: allotted time is 15 minutes including Q&A. Toward the end of each presentation, approximately 3 minutes of Q&A time allotted.
- Please utilize the timer for the time management during the presentation. The remaining time will be shown as your presentation progresses.
- 3. Microphone for Q&A session

To participate in Q&A session during the presentation, please use the microphone in front of the each seat. To use the microphone, please press the button in front of your seat. As the sign illuminates, your microphone is ready to use. Once you finish using microphone, please press the button to turn off the microphone.

#### **Presentation Data**

Please prepare your data in Microsoft PowerPoint. On the day of your presentation, you can either use your own computer or PCs in the memorial hall. The PCs prepared in Akio Suzuki memorial hall is Window OS window 10 office 2016 and Mac Book Air macOS High Sierra Office 2016.

For PC preparation for the presentation, please bring your PC to the technician before your presentation session starts.

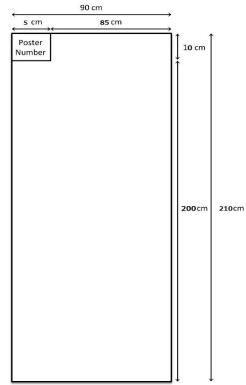
Please make sure to bring your own cable if you decided to use your own computer. We recommend to bring your presentation data on the media (USB flash drives are accepted) as your backup file.

#### **Poster Presentation Guidelines**

1. The panel size is shown in the figure on the right.

Height: 210 cm Width: 90 cm

- Please include the title of your presentation as well as the presenter's name(s) and affiliation in English at the top line of your poster.
- 3. Poster must be prepared in English.
- Poster numbers are already indicated on display panels. Please find your panel that matches to your number assigned for your abstract.
- 5. Pins for putting up posters are provided by secretariat. Please do not use tacks or glue.
- 6. Please wear your name tag and stand in front



of your poster panel during the poster session.

- 7. Posters remaining after the removal time will be removed by the secretariat.
- 8. The Organizers and Secretariat will accept no responsibility for any theft, loss or damage of posters.

#### Poster Set up/ Removal Time

Set up time : Oct. 23rd (Tue) 12:00  $\sim~13:00$ 

Poster session: October 24th (Wed) 12:15 ~14:45

Removal time : Oct. 24th (Thu) 15:00 - 17:30

After 17:30 on October 23, any remaining posters on the panel will be taken away by the secretariat.

## POSTER PRESENTATION

- P-01 **PRL2 links magnesium flux and sex-dependent circadian metabolic rhythms** Noriko Uetani ( McGill University, Canada)
- P-02 Roles of Phosphoinositide 5-Phosphatase SHIP2 in focal adhesion turnover depend on cancer cell types Takeshi Ijuin (Kobe University Graduate School of Medicine, Japan)
- P-03 **The role of PPM1D in regulating DNA damage-induced autophagy** Torii Satoru (Tokyo Medical and Dental University, Tokyo, Japan)
- P-04 **Tie2-Cre Induced Tissue Specific Deletion of** *Ppp6c* **Caused Abnormal Hematopoiesis during Mouse Embryogenesis** Rika Kato (Nara Women's University, Japan)
- P-05 SET dimerization regulates PP2A/B56 association Shunya Tsuji (Yamaguchi University, Japan)
- P-06 The secretory granule-resident pseudophosphatase phogrin enables glucose-stimulated insulin signaling in pancreatic β-cells Seiji Torii (Gunma University, Japan)
- P-07 Regulation of Mg<sup>2+</sup> homeostasis and cancer progression by Phosphatase of Regenerating Liver (PRL) Yosuke Funato (Osaka University, Japan)
- P-08 Manipulating temporal regulation of myosin phosphatase signaling Masumi Eto (Okayama University of Science, Japan)
- P-09 Ser/Thr protein phosphatase PPM1D regulates adipocyte differentiation and formation of lipid droplets
  Rui Kamada (Hokkaido University, Japan)

- P-10 Phosphatase PRL-3: a potential therapeutic target in T-cell Acute Lymphoblastic Leukemia Min Wei (University of Kentucky, USA)
- P-11 **Dephosphorylated FilGAP suppresses chemotactic tumor cell migration** Koji Tsutsumi ( Kitasato University, Japan)
- P-12 "Metal-dependent Substrate Trapping" : The novel substrate identification method for wild-type PPM phosphatases Shogo Ito (Hokkaido University, Japan)
- P-13 Protein Phosphatase PPM1D Controls Neutrophil Differentiation and Maturation.

Fuki Kudoh (Hokkaido University, Japan)

- P-14 Studying 14-3-3-interacting proteins reveals a novel set of PP1 substrate candidates Bernhard Hoermann (EMBL Heidelberg, Germany)
- P-15 Protein tyrosine phosphatase inhibition uncovers fine tuning regulation of TGF-β signaling by nuclear phosphorylation.
   Ryuzaburo Yuki (Chiba University, Japan)
- P-16 PTPδ mediates Semaphorin-3A-induced dendritic growth of cortical pyramidal neurons.
  Fumio Nakamura (Yokohama City University School of Medicine, Japan)
- P-17 A role of α-Endosulfine homolog Igo1 in oxidative stress responses Ayaka Tahara (Kindai University, Japan)
- P-18 Protein phosphatase 6 (PP6) enhances ubiquitination of TRAF3 in NF-κB alternative pathway Kano Tanabe (Kumamoto Health Science University, Japan)

P-19 Identification of phosphatase complex of protein kinase A phosphorylated JMJD1A

Hiroki Takahashi (University of Tokyo, Japan)

- P-20 Down-regulation of Ptpn11 in myeloid cells mitigates diet-induced steatohepatitis in mice Naoto Nagata (Kanazawa University, Japan)
- P-21 Elucidation of control mechanism of type 2A protein phosphatase by autophagy Nobuyuki Fujiwara (Yamaguchi University, Japan)
- P-22 Splicing-dependent regulation of the interaction between PTPδ and postsynaptic organizers Atsushi Yamagata (University of Tokyo, Japan)
- P-23 Role of thrombospondin-1 in mechanotransduction and development of thoracic aortic aneurysm Yoshito Yamashiro (University of Tsukuba, Japan)
- P-24 Essential role of NADPH oxidases in BCR signaling and B cell proliferation Yang-Yang Feng (Tokyo Medical and Dental University, Japan)
- P-25 A novel role for the regulator of calcineurin Rcn1 in negative feedback regulation of the stress-activated MAPK signaling Teruaki Takasaki (Kindai University, Japan)
- P-26 A role of protein phosphatase inhibitor CPI-17 on vascular smooth muscle contraction using genetically modified mice Qunhui Yang (University of Tokyo, Japan)
- P-27 ACA-28, an ERK MAPK signaling modulator, influences DUSP6 expression Yuki Kanda (Kindai University, Japan)

- P-28 Critical role of SIRPα on dendritic cells for the development of experimental autoimmune encephalomyelitis Taichi Nishimura (Kobe University, Japan)
- P-29 Analysis of stress-induced tyrosine phosphorylation of SIRPα in primary cultured neurons Mika lino (Gunma University, Japan)
- P-30 Study of stress-induced tyrosine phosphorylation of SIRPα in immortalized murine microglia cell line Daiki Jingu (Gunma University, Japan)
- P-31 Control of microglia activation by SIRPα Hiromi Nagai (Gunma University, Japan)
- P-32 The role of ligand recognition of SHP-1 activating receptor CD22 in the regulation of B cell tonic signaling. Amin Alborzian Deh Sheikh (Tokyo Medical and Dental University, Japan)
- P-33 Development of Novel Substrate-Trapping Mutants to Identify Physiological Substrates of Ser/Thr Phosphatase PPM1D Seiya Yagi (Niigata University, Japan)
- P-34 Ligand recognition of the SHP-1-activating inhibitory B cell co-receptor CD72

Moe Endo (Tokyo Medical and Dental University, Japan)