APAC DAEWG Event Overview in Bio Japan 2017

Day 0

APAC DAEWG Research Center Site Visit (closed session)

[Date and time] 9:30 am - 4:30 pm Tuesday, October 10, 2017

[Venue] RIKEN Center for Life Science Technologies (Yokohama Campus) and

Research Center for Yokohama Office, Mitsubishi Tanabe Pharma Co., Ltd.

[Purpose] This tour will introduce APAC researchers to the research capabilities of Japanese research facilities and promote bilateral understanding of drug discovery being undertaken in each country.

Nine people from Taiwan, thirteen from Thailand and two from JPMA visited RIKEN Center for Life Science Technologies in the morning of October 10, where we learned how RIKEN CLST is carrying out their research including collaborations with other research facilities. We moved to Mitsubishi Tanabe Pharma Co., Ltd., and learned how Mitsubishi Tanabe Pharma is going to expedite the launch of new drugs.





(At RIKEN Center for Life Science Technologies, Yokohama Campus)

Day1 APAC Business Development Partnering Conference [Date and time] 1 pm - 4 pm Wednesday, October 11, 2017

[Venue] Harbor Lounge-B, Annex Hall, Pacifico Yokohama

With the great assistance by each APAC country representative to disseminate the event information and collect appropriate participants from their countries, a lot of appropriate companies, totally 12 companies/31 persons from Asia and 7 companies/12 persons from Japan, participated in this conference. In the first session, Asian companies gave their presentations about their drug seeds and then Japanese companies shared their corporate information. In the 2nd session, the participants exchanged their pipelines and their business interests, and built networks through face-to-face communication. In this year, since the presentation slides were shared using a web system in advance and all the companies had more time (4-5 minutes) for their presentations comapred to last year, the presentors could provide adequate information, which helped them to have fruitful discussion in the 2nd session. Most of feedbacks from participants were positive, and they answered that the conference was valuable for expanding their networks and they requested us to continue this event.





Day 2

APAC Bio Japan DAEWG Session "Revisit on the potential of natural compounds in drug discovery: open innovation as an enabling platform"

[Date and time] 10:00 am-11:30 am Thursday, October 12, 2017

[Venue] Room F202, Annex Hall, Pacifico Yokohama

[Speaker Pre-meeting]: 9:00 am-9:40am at CM3, Exhibition Hall, Pacifico Yokohama

[Session concept]

According to Newman et.al.¹⁾, about 30 to 50% of pharmaceutical drugs generated in the past three decades originate from natural products. This fact clearly shows that natural products are useful and practical starting points in the drug discovery. However, few pharmaceutical companies are actively focusing on natural products these days mainly due to a lot of investment to keep some critical expertise such as for isolation, structural analysis of natural compounds and organic synthesis of target compounds with many chiral centers. This trend is quite reasonable as long as a pharmaceutical company needs to cover all those expertise. However, collaboration with external partners has become the norm these days which makes us revisit on the potential of natural products in drug discovery. In this seminar, we will invite presenters from academia and industry who have profound knowledge and experience in using natural products in drug discovery. We hope that this seminar will give the audience a chance to reconsider natural products in a new light.

1) Newman, et.al. J Nat Prod. 2012, 75(3): 311–335

[Audience]

Invitation and open enrollment: 120 people, mostly from academia, venture businesses and pharmaceutical industry

[Agenda]

Moderators: Drs. Nares Damrongchai and Wei-Kuang Chi

Presentations (15 minutes x 4 presentations = 60 minutes):

- 1 . Drug Discovery using Natural Products in Thailand (Dr. Chatchai Muanprasat, Mahidol University)
- 2 . Natural Product Library Initiatives (NPLI) (Dr. Mohamed Ibrahim Noordin, Malaysian Institute of Pharmaceuticals and Nutraceuticals (IPHARM) National Institutes of Biotechnology Malaysia)
- 3. Structure-Based Drug Design and Natural Compounds (Dr. Megumi Ikemori, Eisai, Japan)
- 4 . Application of Advanced Technology of Natural Product Chemistry for Drug Discovery (Dr. Kazuya Shin-ya, AIST, Japan)

Panel discussion (25 minutes)

[Discussion topics]

How to promote natural compound-based drug discovery using a cross-border open

innovation in Asia? What is a bottleneck?

- How we can address the bottleneck?
- How to develop researchers leading a cross-border open innovation in Asia?

The importance of the role of Medicinal Chemistry after the active substances had been discovered in the drug discovery was discussed.







APAC DAEWG All-Member Meeting (closed session for APAC DAEWG members)

[Date and time] 2:30 pm-4:30 pm Thursday, October 12, 2017

[Venue] Harbor Lounge-B, Annex Hall, Pacifico Yokohama

Pillar 4: Asia specific disease

Ohwada-san updated on the current situation. At this point, Japan and Taiwan teams have collected information about biobanks in their countries. Following the action items we discussed at the previous AMM in April, we continue to collect information about biobanks in other countries than Japan and Taiwan. Ohwada-san and Hasuoka will request the country representatives for their support. Re. Malaysia, we will find a researcher with support by Dr. Ibrahim.

Pillar 5: Natural product-based drug discovery (Nares/Lilly/Kawakami)

- Dr. Lily showed the ideas/concepts of the NPDD guideline. The ideas/concepts were focusing on a structure of NPDD consortium, relationships between research organizations joining the consortium and a system to address natural resources collected in other countries, etc.
- * At discussion about the structure of NPDD, Dr. Shinya mentioned that membership of the next generation natural product consortium led by AIST is a requirement to use natural compounds stored at AIST.
- Dr. Kawakami and Dr. Hasuoka proposed ideas that could develop Asian researchers though the pilot collaboration, including internship of Thai researchers to Japanese pharmaceutical companies that want to use natural compounds collected in Thailand.
- **x** Considering the discussion at the AMM, Thailand will update the guideline.
- **x** To make sure the progress, a teleconference will be arranged in November.

Update/discussion on bilateral communication

- Hasuoka updated on the JPMA delegations to Taiwan, China and Thailand as well as share the future plans (China Malaysia).
- **×** JPMA delegations to Taiwan, China and Thailand were useful to establish productive networks with researchers, senior managements of the pharmaceutical associations, bio-ventures, and to collect information about drug discovery in Asian countries.

