

PROGRESS OF DA INITIATIVE FOCUSING ON NATURAL PRODUCTS

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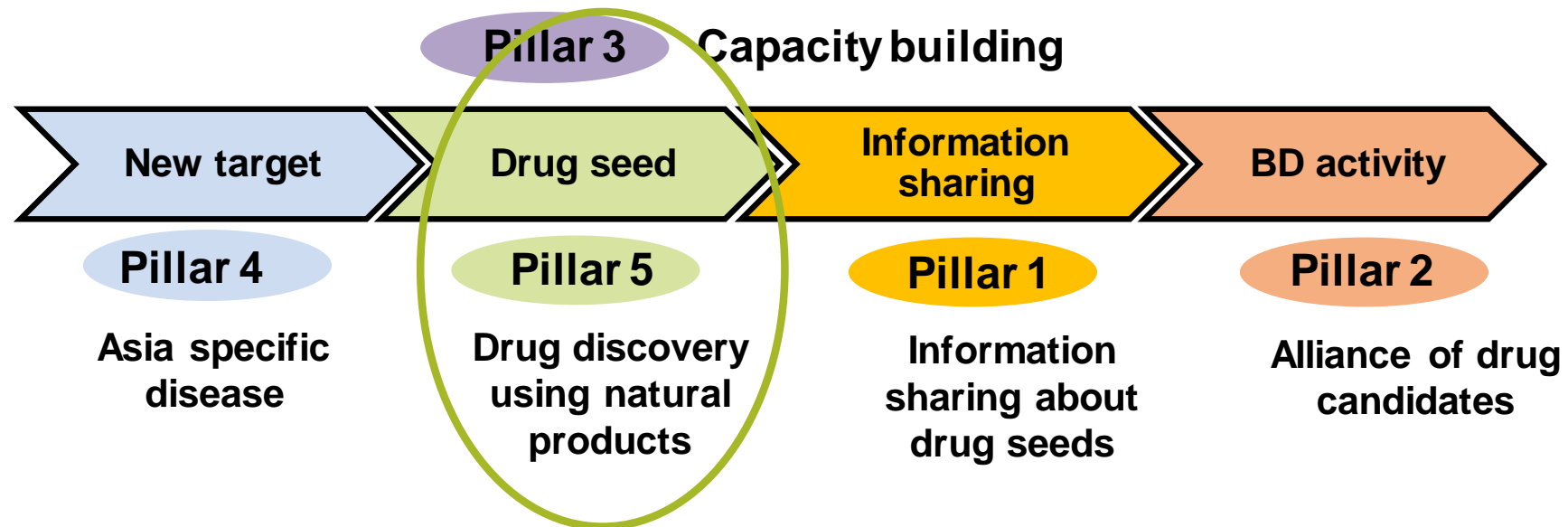
Drug Discovery Alliances Expert Working Group (DA-EWG)

Mission

Promote cross-border open innovation in Asia to deliver innovative drugs to people in Asia

Strategy

Focus on critical drug R&D processes and promote them in collaboration with Asian countries



The APAC Natural Product Drug Discovery Consortium (ANPDC)

- A key function of APAC's DA to drive drug discovery and make use of open innovation platform in order to achieve the launch of innovative medicines for the people in Asia



Objective and Uniqueness

- To construct *unique* and *successful* collaboration mechanism in Asia for the drug discovery using natural resources
 1. APAC driven consortium: under the "*Guideline*", participants need to commit promoting cross-border open innovation and capacity building
 2. *Asian-wide* consortium: Two Japanese pharma companies and many academia in Thailand and Taiwan are joining the consortium.
 3. *Synergy* between academia and industry: the member academia have established unique natural product library, Japanese industry has developed competitive drug discovery know-hows and technology
 4. *Capacity building* of Asian researchers and technology transfer: all the processes are done by in-kind contribution by Asian countries and Japanese pharma. This basic policy encourages Asian academia and Japanese pharma companies to evaluate potential of natural products

Progress Since 7th APAC (1)

事 日 報

2018(平成30)年10月15日 月曜日 (2)

天然物創薬コンソーシアム発足

製薬協 創薬にアジアの資源を活用



コンソーシアムの幹部

台湾やタイの研究者がコンソーシアムに参画する日本の製薬企業が

日本とタイ、台湾が参加したアジア製薬団体連携創薬コンソーシアムが12日に発足した。参加した条約のアクセスと利益配分を定めた名古屋議定書を天然物の創薬活用を推進するガイドラインを4月に調印を行った。主にタイが保有する豊富な天然資源創薬を実現するための共創メカニズムの構築を目指して革新的な新薬を創出していく。

コンソーシアムの委員長 連岡淳氏(武田薬品)にはタイのナレス・タムロ 就いた。日本とタイ、台湾ンチャイ氏、副委員長には が窓口機関となるが、MAPAC創薬連携ワーキンググループも加わる見通し。

グダルトフリーターを務め 日本製薬工業協会加盟会社から加盟を募集、11月末までに参画企業を決定し、12月から開始する予定だ。

- Following the signing of the International Network Agreement on 15th October, JPMA has set up **Japan's own APAC NPDD Consortium**
 - Among 35 R&D Committee member companies of JPMA, Eisai and Takeda has applied for the Consortium
- Two institutes have accepted that they will work as **Advisory Institutes for Research Cooperation in the Consortium**: Technology Research Association for Next Generation Natural Products Chemistry in the National Institute of Advanced Industrial Science and Technology (AIST), and Institute of Microbial Chemistry
- Ongoing preparation for Establishment of natural product extract **database, medical chemistry** expertise, and technology transfer of **phenotypic screening** etc.

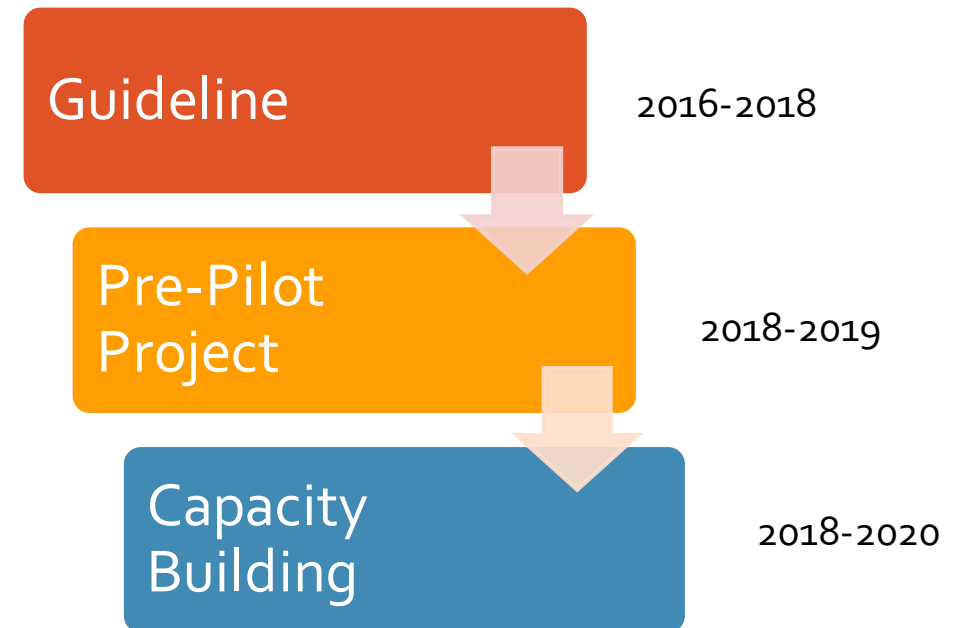
International Network Agreement Signed on 12th October 2018 in Tokyo among TCELS (Thailand), BPIPO (Taiwan) and JPMA (Japan)

Taiwan's ASAP: BPIPO, Nodes: DCB, KMU; Potential NODE: ITM@Y-M U.

Thailand's ASAP: TCELS, Nodes: BIOTEC, Mahidol University, Chulalongkorn University

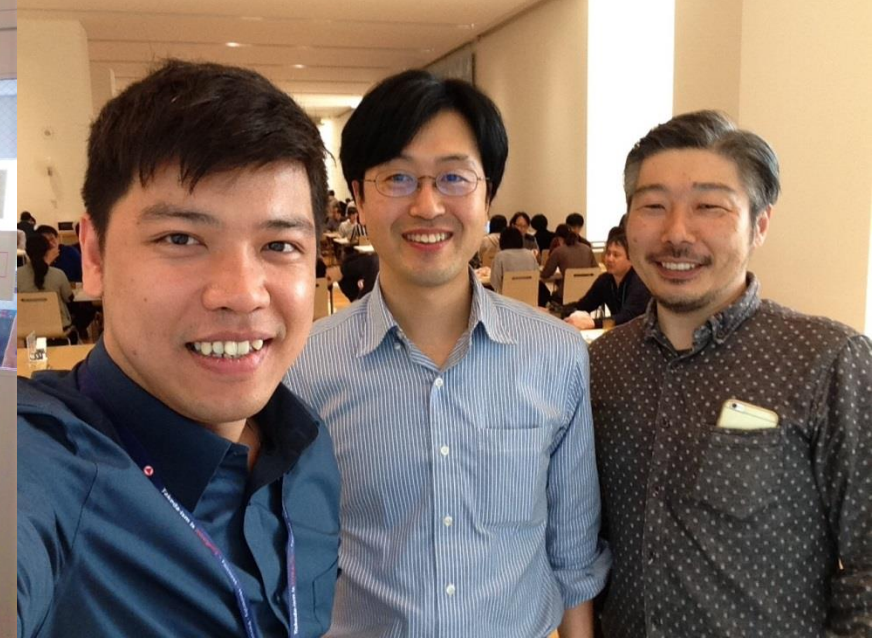
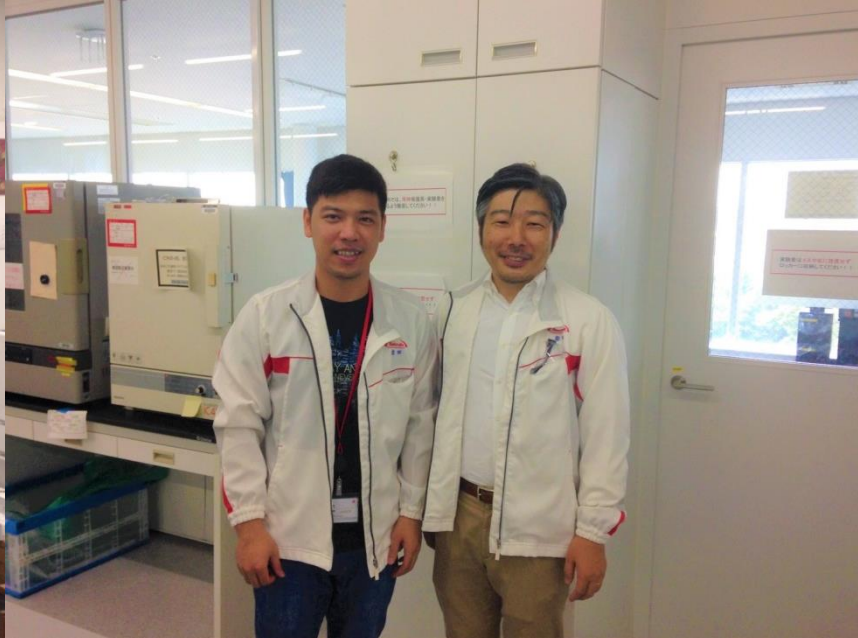
Progress Since 7th APAC (2)

- The **Guideline** for the Natural Product Drug Discovery Consortium was completed and adopted by DA-EWG Pillar 5 Group and All Members Meeting (AMM) in 2018, thus formulated a common rule among members of DA-EWG and led to the formulation of the Consortium
- Natural compounds screening using cancer cell model system including cytotoxicity test has been established to validate the **collaborative work model**. By mid-2019, screening system using cell-based technology from Takeda Pharmaceuticals will be transferred and established at Thailand's high-throughput screening facility in Bangkok. Further 4,000 compounds from Thailand's node will be screened.
- A researcher from Mahidol University, Thailand, is undergoing **internship** in Takeda Pharmaceuticals for a new screening technology before later returning to conduct collaborative research.



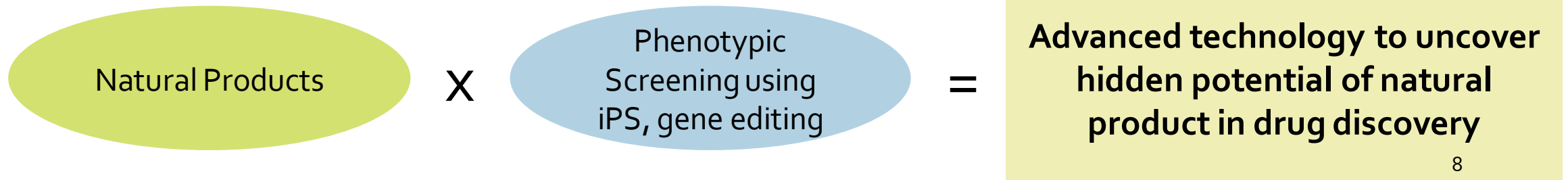
Internship for technology transfer

- 4 month internship at Takeda Shonan Research Center (tech-transfer & capacity building)
- Mr. Phongthon Kanjanasirirat (from Excellent Center for Drug Discovery, Bangkok)



Way forward and Future's Focus?

- Continue to strengthen the Consortium management routine
 - HQ of ANPDC in Bangkok
 - Regular meetings: 2 General Meeting/year, 2 Steering Committee Meeting/year
- Aim to recruit 5 more members to the Consortium, and at least Two programs will be at late discovery stage (e.g. optimization) by 2023.
- Create National Natural Product Libraries and Databases (under discussion)
- More proposals for collaborative research to
 - Seek biologically active seed compound or tool compound for drug discovery
 - Seek novel disease relevant drug targets that could not be addressed by artificial small molecules





Thank you