

Regulatory updates in Japan

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7 October 2024 12th Joint Conference of Taiwan and Japan on Medical Products Regulation

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日本藥品·醫療器械等 監管更新

獨立行政法人 醫藥品醫療機器綜合機構

國際部長 田中 大祐

2024年10月7日 第十二屆台日醫藥交流會議



Today's contents

1. PMDA celebrates 20 years

2. Activities to introduce innovative product quickly in Japan
(1) Global trend of pharma development
(2) Japan's regulatory activities
(3) Strengthening information dissemination

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3. PMDA's Overseas Offices and others



Today's contents

1. PMDA celebrates 20 years

Activities to introduce innovative product

2) Japan's regulatory activities 3) Strengthening information dissemination



PMDA Enters a New Stage on its 20th Anniversary

April, 2024

- Initiative to eliminate drug lag or device lag
- Strengthening safety measures
- Prompt relief services for adverse health effects

2014

April, 2004

 Started with 3 main services, Relief Services for Adverse Health Effects, Product Reviews and Post-marketing Safety Measures

• Organization with about 250 people

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While connecting with all around the world, realizing a world where everyone lives vividly and healthily

New start of PMDA

- Organization with more than 1000 people
- Every staff faces PMDA's Purpose in their work



Making everyone's lives brighter together

We, PMDA, continue to create "Tomorrow's Normal" together, as a "life platform" that supports everyday life, where everyone can feel peaceful and can lead vibrant and healthy lives by PMDA's "Safety Triangle" of review, safety and relief, with "intelligence" weaved through science and information, and with "human resourcefulness" accompanying and bringing the world and the future into harmony.



- Enhancement of further "Quality" of PMDA works through Regulatory Science
 - Enhancement of consultation/review for pharmaceuticals etc. to cope with the innovative products in the world
 - Proper follow-up of safety measures
 - Establishment of emergent response system such as pandemics
- Promotion of strategic international activities
 - Strengthen regulatory support / Disseminate regulatory information to overseas companies to develop innovative products and to seek the development in Japan





Today's contents

2. Activities to introduce innovative product quickly in Japan
(1) Global trend of pharma development

3) Strengthening information dissemination



Origins of Pharmaceutical Innovation

a Total (138 drugs)

Internal	External	Collaboration _ Other
28%	65%	5% 2%

b Biologics (48 drugs)

2	/0
27% 63% 6%	2%

C Small molecules (90 drugs)



Fig. 1 | Origins of FDA-approved new drugs filed by the top 20 biopharma companies between 2015–2021

Nat Rev Drug Discov 22:781–782, 2023 (Oct) doi: https://doi.org/10.1038/d41573-023-00102-z

00/



Recent drug development trend

EBP's share of pharmaceutical sales and number of products under development

MHLW Pharm Industrial Vision 2021 Reference 13 Sep 2021

Classification of pharma		Share of global sales		Share of glo	Share of global pipeline	
Large Pharma (25)	売上高: 10Bnドル以上		64%	15%	(N=8,706)	
Mid-size Pharma (9)	売上高: 5Bnドル~10Bnドル	5%	日本企業の 売上シェア:	2%	日本企業の 品目数シェア:	
Small Pharma (74)	売上高: 500Mnドル~5Bnドル	16%	約8%	3%	約7%	
EBP (3,212)	売上高: ~500Mnドル	14%			80%	

- 日本では新興バイオファーマの存在感が低い(アメリカでは新薬承認数の半分以上を新興バイオファーマの創製品が占める)
- 日本企業は低分子領域の開発品では10%近いシェアをもつが、新モダリティ領域の開発品では3%程度のシェアにとどまる

(出所) IQVIAデータをもとにIQVIA分析

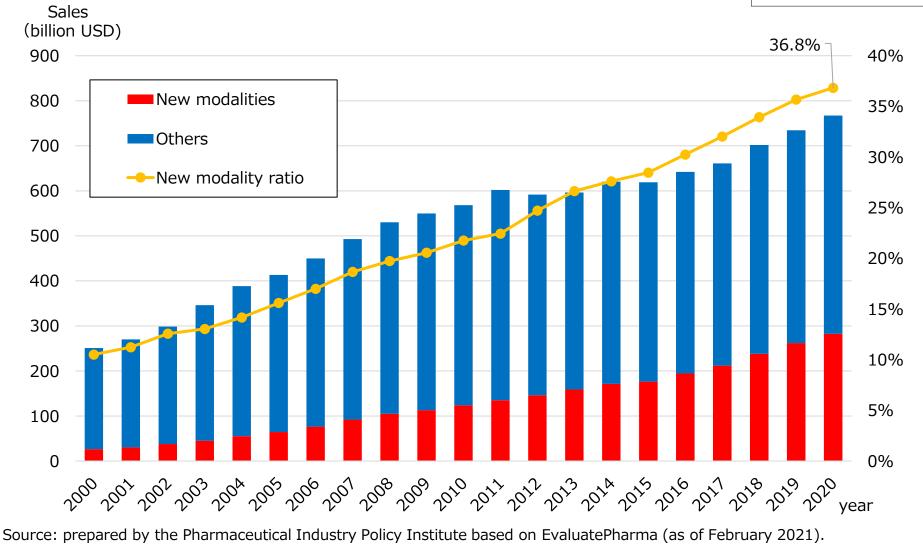
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≣IQVIA



New Modalities Global Pharmaceutical Sales Trends

MHLW Pharm Industrial Vision 2021 Reference 13 Sep 2021

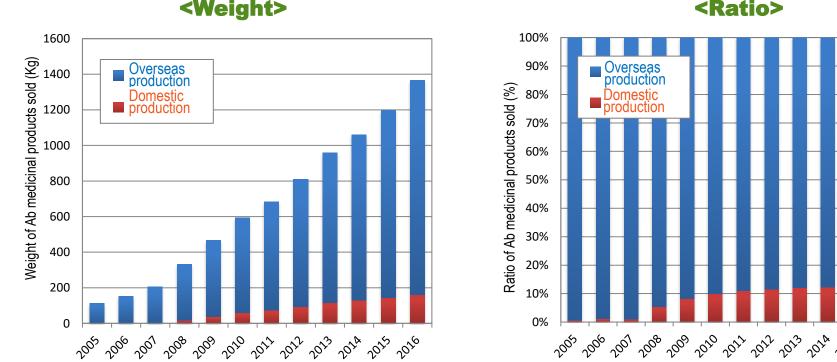




MHLW Pharm Industrial Vision 2021 Reference 13 Sep 2021

Although the number of antibody drugs sold in the country is increasing, around 90% of these are produced abroad, making the country highly dependent on overseas production sites.

Weight of antibody drugs sold by domestic and international production



<Ratio>

Source: copyright@2021 IQVIA. based on individual surveys conducted by IQVIA JPM March 2017 MAT and the Pharmaceutical Industry Policy Institute (all rights reserved). Source: Institute for Pharmaceutical Industry Policy Research Paper Series No. 71 (March 2018).

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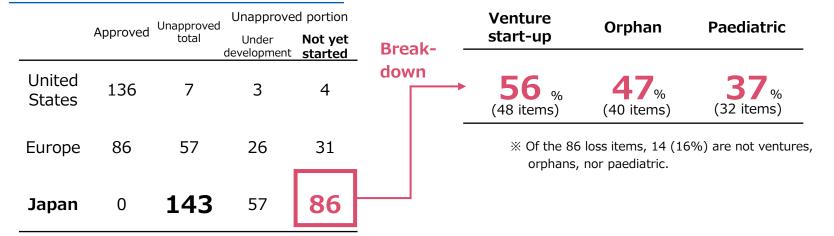
2015

2016



- As of March 2023, there were 86 drugs (60.1% of unapproved drugs) approved in Europe and the U.S. but not yet developed in Japan. It is said that there is "Drug loss" i.e., no companies develop the products in Japan).
- Analysis of 86 products whose development in Japan has yet to start: relatively large proportion of **venture-originated drugs**, **orphans**, **and paediatrics**.

Status of drug loss in Japan, Europe, and the United States



Breakdown of items not yet started in Japan

Source: Published information from PMDA, FDA, and EMA, prepared by the Pharmaceutical and Industrial Policy Research Institute based on tomorrow's new drugs (Technomic Co., Ltd.), and tabulated by the Ministry of Health, Labour and Welfare.

%1:Of the NMEs approved in Europe and the United States in 2016-2020, those not approved in Japan as of the end of 2022 are counted as unapproved.
%2:As of March 2023, items for which no development information was available are counted as undeveloped products in Japan.

X3: Figures are totaled for development companies with sales of less than US\$500 million within 30 years of approval in Europe and the U.S.

%4:Compiled as orphans for items designated as orphan drugs by the time of approval in Europe and the U.S.

*5:2022 Calculated based on pediatric products approved for pediatric use in Europe and the U.S.

Adapted from "Reference Material 4 of the 1st Meeting of the Committee on Regulatory Measures for Strengthening Drug Discovery Capabilities and Securing Stable Supply" implemented by the Pharmaceutical and Environmental Health Bureau, MHLW



Today's contents

2. Activities to introduce innovative product quickly in Japan

(2) Japan's regulatory activities(3) Strengthening information dissemination



(13 meetings from 22 September, 2022 to 6 June, 2023)

Main topics discussed

Securing Stable supply

Many products, mainly generics, are suspended. It is due to the structural problems of the generic industry, such as many companies are small-scale and have limited-capacity, and low-volume with high-diversity production of generic medicines.

Strengthening Pharma R&D

Japan's pharma development capacity has declined, with the global market share of Japanese origin decreasing. The transition to new modalities has been delayed, and a shift to an R&D-oriented business model needs to be accelerated.

Elimination of Drug Lag / Loss

143 products approved in Europe and the US have not been approved in Japan. Of these, 86 have not yet started development in Japan, raising concerns about drug losses. Venture-origin medicines, orphan drugs and paediatric drugs account for a large proportion of these medicines.



Considering the **pharmaceutical regulations** in order to eliminate drug loss issues, ensure stable supply and accelerate pediatric drugs development

Considerations

Promotion of development	How to designate orphan drugs Pharmaceutical reviews that contribute to promote development of pediatric drugs	10 Jul, 2023 7 Aug, 13 Sep,13 Dec, 2023; 8 Feb, 2024
Clinical trials	Arrangement of necessity of Japanese data for approval review in Japan Introduction of further efficiency in trials (ecosystem)	12 Mar, 2024
Post-market safety measures	Post marketing use-results surveys Use of real world data in regulatory affairs system	12 Jan, 2023; 12 Mar, 2024
Quality	Regulatory reviews on manufacturing methods of drugs] 13 Oct, 15 Nov, 2023
Information dissemination	Disseminating the information on Japanese regulatory system around the world] 15 Nov, 2023

(only in Japanese) https://www.mhlw.go.jp/stf/shingi/other-iyaku_128701_00006.html



Support for development of drugs for rare diseases, paediatric drugs and others

- Orphan drugs: new mechanisms for accelerated designation
 - > Accelerated designation (expanded part starts with non-priority review, priority review can also be given depending on evidence)

Paediatric medicines: support for promote development

Confirm need for paediatric drug development during adult drug development (MHLW: incentives on drug prices)

Establishment of the Consultation Center for Pediatric and Orphan Drugs Development (CCPODD) (as of 1 July 2024).

- The project of the Consultation Center for Pediatric and Orphan Drugs Development (CCPODD) is planned to be launched. (Establishment of a consultation framework (implementation guidelines already published)/subsidy for consultation fees).
- Sakigake designation system: aim for total review period of 6 months.
- Sakigake general consultation: all applications handled
- Promoting early introduction of the clinical trial ecosystem
 - Launch of the project to promote introduction of clinical trial ecosystem (public call for project implementing organisations underway).



Creation of an environment and dissemination of information for innovative medicines development in Japan.

- Provide information on Japan's pharmaceutical regulations and PMDA operations to overseas venture companies at international conferences, and conduct RS general consultations.
- Provide consultation and support to overseas venture companies through PMDA's US office (to be established by the end of this year).
- Provide accurate advice in clinical trial consultations regarding participation in international multi regional clinical trials
 - > Clearly indicate in notifications when Japanese Phase I trials are not required before participation



Towards a revision of the requirements for the orphan designation

[Requirements and Issues for Orphan Designation]

Eligibility

The number of patients was less than **50,000** in Japan

% Effective April 1, 2015, 50,000 or more cases of designated intractable diseases shall satisfy this requirement.

Medical needs

No appropriate alternative medicines or treatments, or **significant higher** efficacy or safety is expected

If there is an approved drug, it may be judged an alternative is available regardless of its efficacy.

Direct comparison with approved drugs may be required

Possibility of development

With a rationale for the product to use for the disease concerned and with appropriate developmen

Phase II trial completed and Phase agreed with PMDA
 Result from a phase III trial

[Points to consider toward revision]

Clarification of "salami slicing" requirements

Clarification of criteria based on medical and pharmaceutical considerations

For example, based on medical and pharmacological considerations, target diseases limited to those for which development has not progressed may not fall under "salami slicing"

Clarification of "medical needs"

Clarification of Concept on Alternative Therapy Clarification of Concept on Comparison with Existing Therapy

Speeding-up of designation and clarification of withdrawal conditions

Clarification of requirements for acceleration and withdrawal of designations

16 January 2024, Notifications were issued by the MHLW

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of



Establishment of the Consultation Center for Pediatric and Orphan Drugs Development (CCPODD)

Since 1 July 2024

For promoting development and introduction of medicinal products for paediatric and rare diseases, the Consultation Center for Pediatric and Orphan Drugs **Development (CCPODD)** is established to provide the necessary consultation.



Development of consultation system

- Consultation on Confirmation of the Paediatric Drug Development Program
 - > To confirm the paediatric development plan, which leads to an additional premium on the NHI Drug price list
- Consultation on Orphan Drugs eligibility for Priority Review > To evaluate whether products designated as orphan drugs are eligible for priority review
- Drug application data package consultation for unapproved or off-labeled drugs. with high medical

Consultation on the st Consultation on comp the main clinical trial

Established on 1 July 2024, in PMDA

(Independent of the Center)

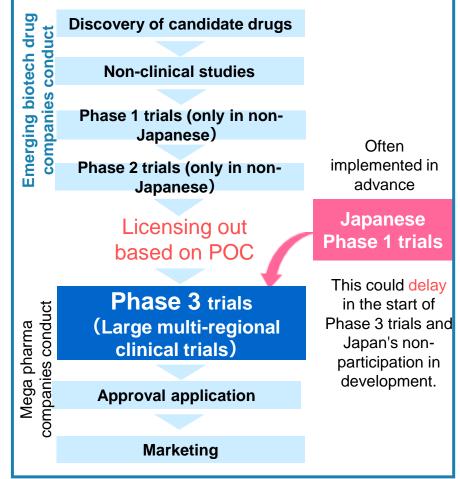


Necessity of Japanese Phase 1 Trial

[PMDA's principle]

- If there are ethnic differences between Japanese and non-Japanese, we recognize that the Japanese data are important in using drugs safely in Japan
- We <u>have not uniformly required</u> Phase 1 trials in Japanese before participating in multi-regional clinical trials, and determines <u>synthetically by considering</u> <u>multiple perspectives</u>.
- It is desirable that Japan participates in multi-regional clinical trials from early stage in development and Japanese data are collected.

Flow of development of drugs discovered by emerging biotech drug companies (An example)



(only in Japanese) https://www.mhlw.go.jp/stf/shingi/other-iyaku_128701_00006.html



Basic Principles for conducting phase 1 studies in Japanese prior to MRCTs including Japan

Notification (25 December 2023) by the Director of the Pharmaceutical Evaluation Appendix 2 and Licensing Division, MHLW Basic principles for conducting phase 1 studies in Japanese prior to initiating 医薬薬審発 1225 第2号 multi-regional clinical trials including Japan for drugs in which early clinical 令和5年12月25日 development is preceding outside Japan 各都道府県衛生主管部(局)長 殿 December 25, 2023 別添2 海外で臨床開発が先行した医薬品の国際共同治験開始前の 1. Introduction 日本人での第Ⅰ相試験の実施に関する基本的考え方について The possibility for Japanese to participate in multi-regional clinical trials (MRCTs) may 海外で臨床開発が先行し 令和5年12月25日 significantly affect the success or failure of introduction of drugs to Japan in cases 日本人での第I相試験の実 where early clinical development is preceding outside Japan and Japan's participation in 1. はじめに global development begins to be considered at the start of MRCTs. This document 国際共同治験開始前の日本人での 海外で先行して早期の臨床開発が進められ、その後の国際共同治験が実施 provides basic principles for the necessities of conducting phase 1 studies in Japanese される段階において日本の参加の検討が始まった医薬品の場合においては、 は、これまで、「国際共同治験に関す prior to initiating MRCTs including Japan for drugs in such a situation to ensure the 国際共同治験への日本人の参加の可否がその後の日本での当該医薬 28 日付け薬食審査発第 0928010 号 safety of Japanese participants in MRCTs and to minimize the disadvantages of patients く影響する可能性がある。本文書は、そのような状況において 「「国際共同治験に関する基本的考え caused by the delay of the introduction of the drug to Japan. 適用されることを想定して、国際共同治験に参加する日本人の安全性を確保 月5日付け厚生労働省医薬食品局審 するとともに、当該医薬品の導入が日本で遅れることによる患者の不利益を In general, it remains desirable that Japan participates from the early phase in clinical 日付け厚生労働省医薬 is stated that in principle, an additional phase 1 trial in Japanese is not needed, if the safety and tolerability in Japanese participants can be explained and the safety is clinically acceptable and manageable based on the available data.

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https://www.pmda.go.jp/english/rs-sb-std/rs/0011.html



Today's contents

2. Activities to introduce innovative product quickly in Japan

(3) Strengthening information dissemination



Strengthening overseas information dissemination on Japan's pharmaceutical regulations

by PMDA Chief Executive, Dr Fujiwara

In 5th Mid-term Plan, Active contribution to the development, Strengthening of the ability to make international proposals, and Improvement of PMDA's operations, are stipulated. Information on Japan's pharma regulation be directly provided for overseas ventures to develop innovative products also in Japan.

Key messages

- 1. World's fastest review and high quality review
- 2. Efforts to promote MRCT (e.g. clarifying principle that the Japanese P1 study is not required for participation in MRCT)
- 3. Support for development in Japan (e.g. scientific consultation from early development to postapproval, international regulatory harmonisation)

Recent initiatives (first half of 2024) (by Chief Executive himself)

Panelist, American Society of Clinical Oncology (ASCO)	Chicago, US
Speaker and Panelist, BIO International Convention (BIO)	San Diego, US
Speaker and Panelist, Welcome Trust Regulatory Science of Antimicrobial Agents Workshop	Singapore
Speaker and Panelist, DIA* 2024 Global Annual Meeting (also PMDA Town Hall at DIA Global 2024)	San Diego, US

* Free consultation for development of medicinal products is also done at exhibitions such as DIA.



<BIO International Convention 2024> June 2024

- Promote attractiveness of obtaining Marketing Authorisation in Japan to venture companies by introducing Japan's efforts to harmonize pharmaceutical regulations and PMDA's efforts to make Japan a reference country in the Asian region.
- Conducted in cooperation with the Ministry of Health, Labour and Welfare (MHLW) and the Ministry of Economy, Trade and Industry (METI).

<DIA Euro, DIA Global > March and June 2024

- PMDA Townhall to provide Information on the Japanese Pharmaceutical Regulation and Market Situation
 - Japan's approval system (SAKIGAKE, priority review, conditional approval, etc.)
 - Pre-trial consultation system and contact information
 - Introduction of the NHI drug price system, etc.
- Conduct a brief consultation with companies seeking to develop medical products in Japan.

<Future expected Plan>

- To communicate in PMDA's own language (in English).
- Establish Washington D.C. office at an early stage, and collaborate with JETRO and others, based in the US to encourage venture companies to bring their products to Japan's market.



Information Dissemination at the PMDA Website





Announcement (6 September 2024) by the Pharmaceutical Evaluation and Licensing Division, MHLW

各都道府県衛生主管部 (局) 藥務主管課 御中

厚生労働省医薬局医薬品審査管理課

新医薬品の承認申請に際し承認申請書に添付すべき資料の提出について

新医薬品の承認申請書に添付すべき資料については、「新医薬品の製造又は輸入の承認申請に際し承認申請書に添付すべき資料の作成要領について」(平成13年6月21日医薬審発第899号厚生労働省医薬局審査管理課長通知)において通知しているところです。今般、ドラッグ・ラグ・ロスの解消を目的として外国の事業者でも日本国内での承認申請を容易とするため、今般、同課長通知の第三に掲げるCTD第3部、第4部及び第5部以外についても、下記のように当分の間、試行的に英語での提出を可能とすることとしたので、貴管下事業者宛てに周知方お願いいたします。

記

 承認申請における英語での資料提出について
 (1)承認申請時において、承認申請書、添付文書を含むCTDの内容すべてに 関して英語表記を可能とすること。

(2)本事務連絡に基づく英語での資料提出は、当分の間、日本法人や日本事務 所を有しない外国企業が日本で新医薬品(「医薬品の承認申請について」(平 成26年11月21日薬食発1121第2号厚生労働省医薬食品局長通知)の別表2 --(1)の(1)から(3)までに掲げる医薬品に限る。)を承認申請する際に 活用できるものであること。この取扱いは、ニーズやコストなどに関する今回 の試行の結果を踏まえ、今後、他の企業への拡大を検討するものであること。

(3)本事務連絡に基づく英語での資料提出の計画があるときは、あらかじめ、 独立行政法人医薬品医療機器総合機構審査マネジメント部に相談すること。

- All documents for NDA submission, including the Common Technical Document (CTD) and labelling in English are allowed for the time being.
- Eligible for non-Japanese companies without any branches nor offices in Japan.
- A consultation with the Office of Review Management of PMDA prior to submission is required.



Today's contents

(1) Global trend of pharma development (2) Japan's regulatory activities (3) Strongthoning information discomination

3. PMDA's Overseas Offices and others



Initiatives to strengthen cooperation with Asian countries and the United States

- To support innovative medicines & medical devices access in Japan and Asian countries,
 - To strengthen cooperation with ASEAN countries
 - To support the promotion of regulatory harmonisation with Asian countries
 - To develop an environment for smooth clinical development
- Close collaboration between Japan and US regulatory authorities is essential in supporting in flexible manner and without time-zone difference;
 - Development of innovative medicines and medical devices
 - Regulatory review
 - Post-marketing measures.

Cooperation with Asian countries and the US, including the establishment of overseas offices in the Asian region and the US, in order to promote the development of and access to innovative medicines & medical devices.



Objective: work directly with counterpart authorities and others at overseas offices, flexibly without time-zone difference

Asia Office, Bangkok, Thailand (since July 2024)

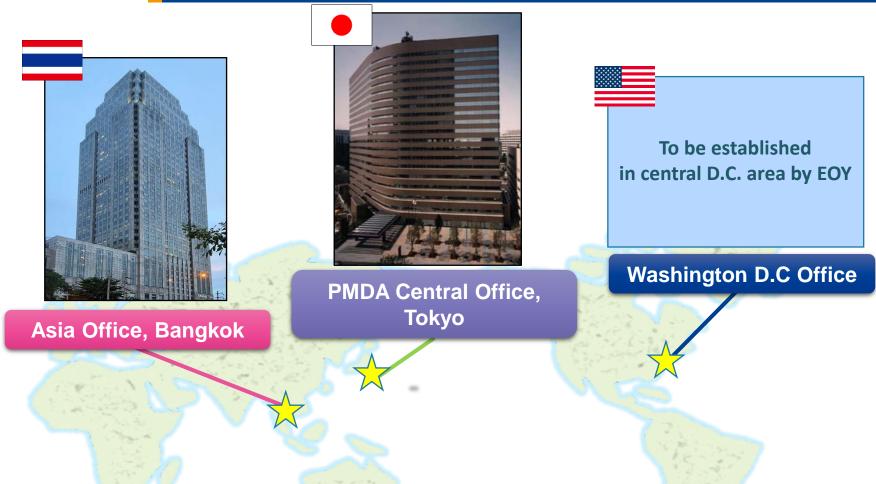
- Establishment of pharma regulatory infrastructure in Asian countries (collection of local needs, local implementation of PMDA-ATC training, local implementation of bilateral regulatory harmonisation activities).
- Exchanging info and consultation with companies and organisations entering the Asian region and with local companies and organisations.
- > Others (collaboration with the National Cancer Centre Thailand Office, etc.).

Washington D.C. Office, USA (expected by the end of 2024)

- Disseminating information and consultation services to start-ups in the US (Local conduction of PMDA outreach activities)
- Strengthening on-site regulatory cooperation and exchange of regulatoryrelated information with US administrative agencies, including the FDA.



PMDA's International Hubs



Establishment of PMDA's international hubs to enhance international contribution/capability for regulatory proposal

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PMDA's 5th mid-term plan



PMDA established **PMDA** Asia Office as its first oversea base



Website: https://www.pmda.go.jp/english/int-activities/overseas-office/asia/0001.html



PMDA Washington D.C. Office

Enhance international contribution / capability for PMDA's regulatory proposal

- Strengthening cooperation with US FDA and related administrative agencies such as
 - to further promote access to innovative human medicines/medical devices/regenerative products
 - to engage in further discussion on MA and post-marketing measures
- More opportunities for communication with stakeholders
 - in the same time zone without considering time-zone difference
 - face to face meeting with more in-depth discussions

Missions of PMDA Washington D.C. Office (To be established by the end of 2024)

- Promoting dissemination of information on Japanese regulation at the office/on the site
 - to offer consultation to small business/start-up companies on early development in Japan
 - through sharing Japanese regulatory information and tips
- Strengthening regulatory cooperation/direct information exchanges
 - with U.S. FDA and related administrative agencies
 - on regulatory affairs on human medicines/medical devices/regenerative products



The principle of 5th Mid-term Plan

To play a leading role in the international arena as one of the world's trilateral regulators along with US and EU counterparts, and to establish Japan as a reference country for Asia through the establishment of overseas bases, with promoting strategic international activities.

			Specific Activities
Strengthening the foundation for		FY 2023	Basic agreement on long-term training programme (July) and agreement on long- term training programme (October) signed with the Indonesian Ministry of Health for hosting of the Regulatory officials from April 2024.
cooperation with Asian countries by		<< 5th Mid-term Plan >>	
 hosting long-term traininees from Asian regulators Annual Plan for 2024 To accelerate regulatory harmonisation, strengthen the foundation for cooperation with Asian countries by establishing an Asian base and hosting long- term trainees from Asian regulatory authorities. 		FY2024	The training (trial) for Indonesian trainees to gain hands-on experience of Japanese medical device
		regulations (review, safety, standards and quality) and the PMDA's actual operations, based on the requests of Indonesian side. Through this training, regulatory harmonisation with Indonesia and strengthening of trust with PMDA are expected. The training is implemented at PMDA's medical device departments, including the review, preparation & coordination of standards and accompanying QMS inspection. The content of training in and after FY2025 will be reviewed based on the status of training in FY2024, requests from Asian regulatory authorities, and other factors.	
·····		FY2025 -	Implement long-term training for Asian regulators in a planned manner to establish reference country status amongst Asian regulators.



Thank you for listening !

感謝您的關注!

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2024年10月7日 第十二屆台日醫藥交流會議