



# Harmonizing Regulatory Science through the International Council for Harmonisation (ICH)

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# Learning Objectives

- Understand how ICH contributes to harmonization of technical and scientific requirements for registration of pharmaceuticals for human use
- Describe how the ICH reforms have expanded the global reach of the ICH Association in response to an increasingly global pharmaceutical market
- Identify the types of stakeholders who participate in ICH and requirements for becoming a member or observer
- Explain the process for development of internationally harmonized guidelines under ICH and how to follow progress

# International Council for Harmonisation (ICH)



- Originally founded in 1990, ICH is a unique harmonization initiative for regulatory authorities and pharmaceutical associations
- ICH's mission is to achieve greater harmonization worldwide to ensure that safe, effective, and high quality medicines are developed and registered in the most resource-efficient manner
- Harmonization is achieved through the development of ICH Guidelines via a process of scientific consensus



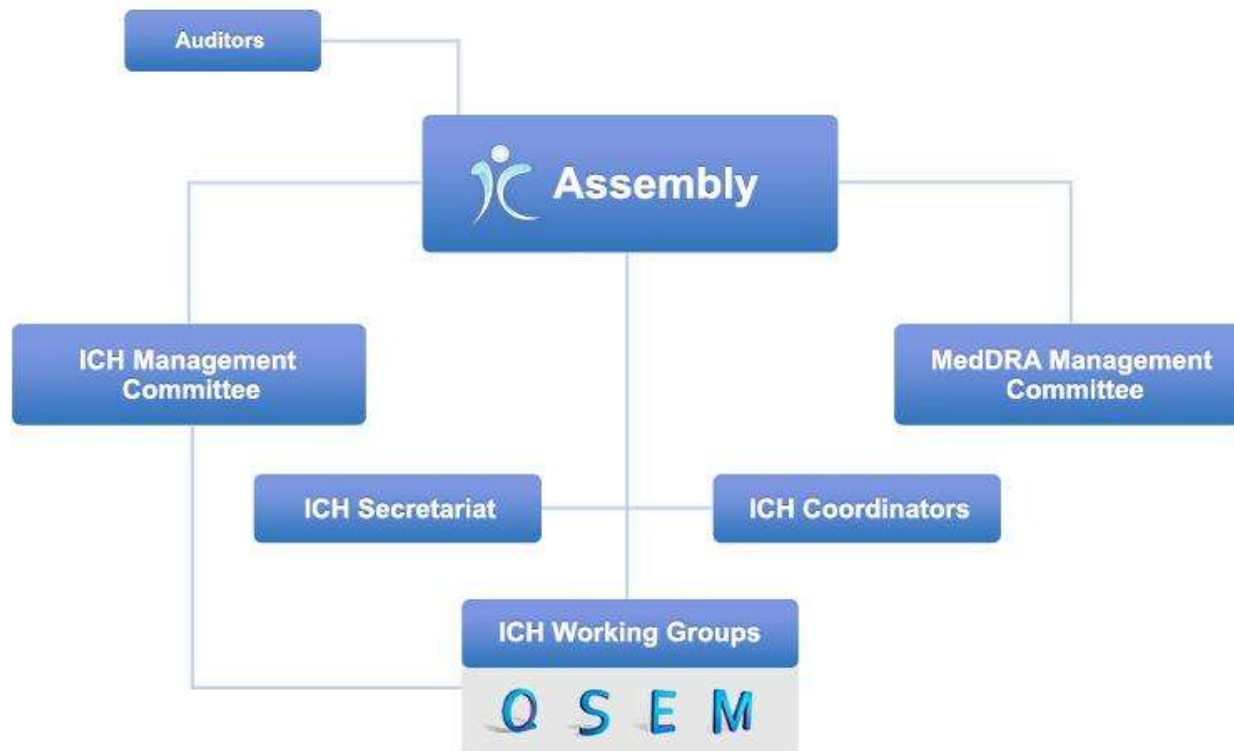
# Why should regulators harmonize scientific and technical requirements for the marketing of pharmaceuticals?

- More efficient regulatory review
- More efficient exchange of information between regulatory authorities
- Promotes efficiency in drug development and avoids duplication of studies
- Reduced time to get a product to the market
- Reduced patient burden through prevention of unnecessary duplication of clinical trials and post market clinical evaluations
- Reduction of unnecessary animal testing without compromising safety and effectiveness

# Reforms of ICH Association

- ICH was reformed as a non-profit legal entity under Swiss Law on October 23, 2015
- The new Association aims to focus global pharmaceutical regulatory harmonization work in one venue
- More involvement from regulators and industry around the world is welcomed and expected

# Governance Structure of ICH Association



# Pathways to Membership



## ELIGIBILITY CRITERIA FOR LEGISLATIVE OR REGULATORY MEMBER

- Legal personality
- Responsible for the regulation of pharmaceutical products for human use
- Has participated in at least 3 out of 4 Assembly meetings during the past two years
- Has appointed experts in at least two ICH Working Groups
- Has implemented the ICH Q1, Q7, and E6 Guidelines

## INDUSTRY MEMBER CRITERIA

- Legal Personality
- Represents Members from several countries in at least three continents
- It or its members are regulated or affected by all or some ICH Guidelines
- Has participated in at least 3 out of 4 Assembly meetings during the past two years
- Has appointed experts in at least two ICH Working Groups

# ICH Members

(as of April 2020)



- **Founding Regulatory Members (permanent Management Committee (MC) Members):**
  - EC, Europe; FDA, US; MHLW/PMDA, Japan
- **Founding Industry Members (permanent MC Members):**
  - EFPIA, JPMA, PhRMA
- **Standing Regulatory Members (permanent MC Members):**
  - Swissmedic, Switzerland; Health Canada, Canada
- **Elected MC Members:**
  - **Regulatory Members:** ANVISA, Brazil; HSA, Singapore; MFDS, Republic of Korea; NMPA, China;
  - **Industry Members:** BIO, IGBA
- **Regulatory Members:**
  - TFDA, Chinese Taipei
- **Industry Members:**
  - Global Self-Care Federation

**New Members  
since ICH  
Reforms**

# ICH Observer Criteria

- Legislative or administrative authorities and Regional Harmonization Initiatives with the responsibility for regulation of pharmaceuticals for human use
- International pharmaceutical industry organizations that are regulated by all of some of ICH guidelines
- International organizations represented at the global level whose work is regulated or affected by ICH guidelines

# ICH Observers

(as of April 2020)



## Standing Observers

- International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) (MC Member)
- World Health Organization (WHO) (MC Member)

## Legislative or Administrative Authorities

- ANMAT, Argentina
- CDSCO, India
- CECMED, Cuba
- COFEPRIS, Mexico
- CPED, Israel
- INVIMA, Colombia
- JFDA, Jordan
- MMDA, Moldova
- National Center, Kazakhstan
- NPRA, Malaysia
- NRA, Iran
- Roszdravnadzor, Russia
- SAHPRA, South Africa
- SCDMTE, Armenia
- TGA, Australia
- TITCK, Tukey

## Regional Harmonization Initiatives

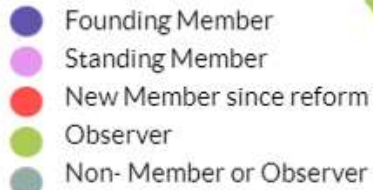
- Asia-Pacific Economic Cooperation (APEC)
- Association of Southeast Asian Nations (ASEAN)
- East African Community (EAC)
- Gulf Cooperation Council (GCC)
- Pan American Network for Drug Regulatory Harmonization (PANDRH)
- Southern African Development Community (SADC)

## International Pharmaceutical Industry Organization

- Active Pharmaceutical Ingredients Committee (APIC)

## International Organizations with an Interest in Pharmaceuticals

- Bill & Melinda Gates Foundation
- Council for International Organizations of Medical Sciences (CIOMS)
- European Directorate for the Quality of Medicines & HealthCare (EDQM)
- International Pharmaceutical Excipient Council (IPEC)
- Pharmaceutical Inspection Cooperation Scheme (PIC/S)
- United States Pharmacopeia (USP)



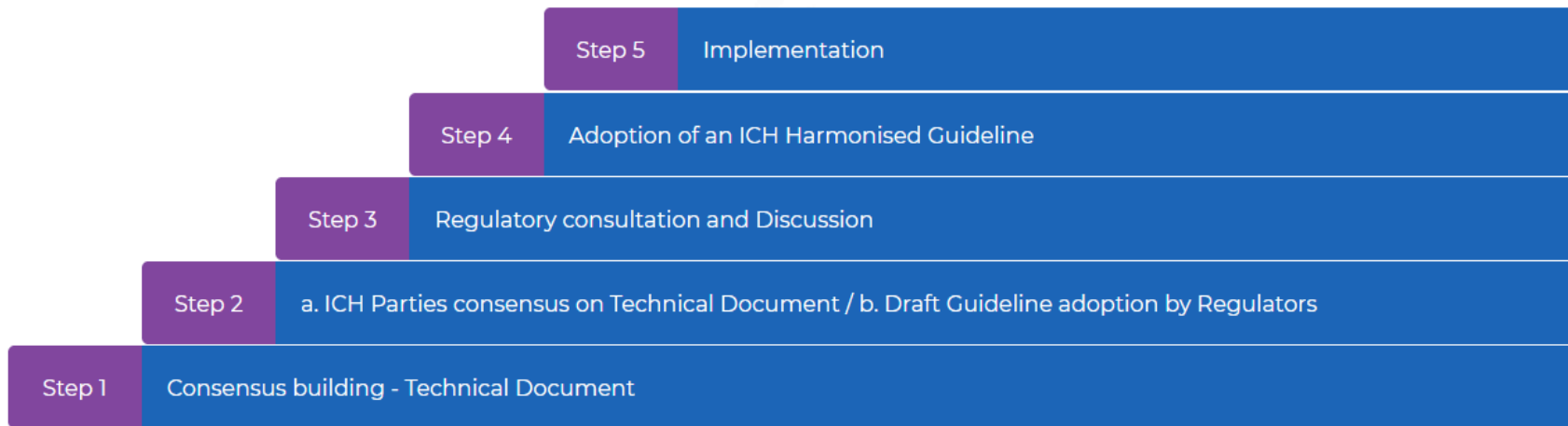
# Challenge Question #1

**Which of the following was not one of the goals of the organizational changes of the ICH Association in 2015?**

- A. Allow for wider inclusion of global industry sectors affected by ICH harmonization
- B. Better equip ICH to face the increasing challenges of global pharmaceutical development and manufacture
- C. Expand ICH's membership and promote implementation of ICH guidelines more globally
- D. Find new locations to host ICH meetings

# ICH Formal Procedure

Harmonization is achieved through the development of ICH Guidelines via a 5-step process of scientific consensus



# ICH Develops Guidelines in the areas of Safety, Quality, Efficacy, and Multidisciplinary Areas



Home \ ICH Guidelines \ All Guidelines

## ICH Guidelines

The ICH topics are divided into the four categories below and ICH topic codes are assigned according to these categories.



### Quality Guidelines

Harmonisation achievements in the Quality area include pivotal milestones such as the conduct of stability studies, defining relevant thresholds for impurities testing and a more flexible approach to pharmaceutical quality based on Good Manufacturing Practice (GMP) risk management.



### Safety Guidelines

ICH has produced a comprehensive set of safety Guidelines to uncover potential risks like carcinogenicity, genotoxicity and reprotoxicity. A recent breakthrough has been a non-clinical testing strategy for assessing the QT interval prolongation liability: the single most important cause of drug withdrawals in recent years.



### Efficacy Guidelines

The work carried out by ICH under the Efficacy heading is concerned with the design, conduct, safety and reporting of clinical trials. It also covers novel types of medicines derived from biotechnological processes and the use of pharmacogenetics/genomics techniques to produce better targeted medicines.



### Multidisciplinary Guidelines

Those are the cross-cutting topics which do not fit uniquely into one of the Quality, Safety and Efficacy categories. It includes the ICH medical terminology (MedDRA), the Common Technical Document (CTD) and the development of Electronic Standards for the Transfer of Regulatory Information (ESTRI).

# How to Follow the Progress of ICH Guidelines



Visit: [ich.org](http://ich.org)

**M9 Biopharmaceutics Classification System-based Biowaivers**

▼ **M9 EWG** **Biopharmaceutics Classification System-based Biowaivers**

This topic was endorsed by the ICH Assembly in October 2016.  
This new multidisciplinary Guideline addresses Biopharmaceutics Classification System (BCS)-based biowaivers. BCS-based biowaivers may be applicable to BCS Class I and III drugs, however BCS-based biowaivers for these two classes are not recognised worldwide. This means that pharmaceutical companies have to follow different approaches in the different regions.  
This Guideline provides recommendations to support the biopharmaceutics classification of medicinal products; will provides recommendations to support the waiver of bioequivalence studies.  
This will result in the harmonisation of current regional guidance and support streamlined global drug development.

**Rapporteur:** Dr. Jan Welink (EC, Europe)  
**Regulatory Chair:** Dr. Paul Seo (FDA, United States)

Date of Step 4: 20 November 2019  
Status: Step 5

**Implementation status:**

**ANVISA, Brazil** - In the process of implementation; Reference: RDC 37/2011  
**EC, Europe** - Implemented; Date: 30 July 2020; Reference: EMA/CHMP/ICH/493213/2018  
**FDA, United States** - In the process of implementation;  
**MFDS, Republic of Korea** - In the process of implementation; Date: 1 January 2021; Reference: Regulation on Standard on Pharmaceuticals Equivalence Test (MFDS Notification No. 2019-141, December 30, 2019)  
**MHLW/PMDA, Japan** - In the process of implementation;  
**NMPA, China** - In the process of implementation;  
**Swissmedic, Switzerland** - In the process of implementation;  
**TFDA, Chinese Taipei** - Implemented; Date: 11 August 2016; Reference: BCS biowaiver guideline for Generics

**Guideline**  
M9 Guideline

**Endorsed Documents**  
M9 Concept Paper  
M9 Business Plan  
M9 Work Plan

**WG Presentations / Trainings**  
M9 Step 4 Presentation

[Expert list](#)

# Challenge Question #2

**What is the best way for interested parties to provide input on an ICH Guideline if they do not qualify for ICH Membership or Observership?**

- A. Write a letter to ICH at any stage of the harmonization process with your recommendations for an ongoing harmonization project
- B. Submit comments through either the ICH Secretariat or the respective regional pharmaceutical regulatory authority when the draft guideline reaches step 3 and is issued for public comment
- C. Issue a publication after the guideline is finalized outlining recommended improvements for an ICH Guideline
- D. Build a website dedicated to content outlining reasons why an ICH Guideline is ineffective

# ICH 30<sup>th</sup> Anniversary

- 2020 marks 30<sup>th</sup> Anniversary of ICH
- A commemorative event will be held Saturday, 14 November 2020 in Athens, Greece – in advance of the bi-annual ICH meeting
- Will look at ICH's evolution since inception in 1990, current efforts and future directions
- Open registration after an initial invitation to key former ICH participants
- Information will be available on ICH website:  
<https://www.ich.org/page/ich-public-events>

# Summary

- International harmonization aligns technical and scientific requirements for the development and manufacture of pharmaceuticals and leads to more efficient drug development and marketing and increased patient access to pharmaceuticals
- Those who qualify, can apply to become an ICH member or observer
- Public stakeholders can follow the progress of development of new ICH guidelines and revision of existing ICH guidelines and provide comments during public consultation

# Resources

- Visit the ICH website for more information:  
[www.ich.org](http://www.ich.org)
- Training for ICH Guidelines:  
<http://www.ich.org/trainings/training.html>
- FDA guidance documents:  
<https://www.fda.gov/regulatory-information/search-fda-guidance-documents>

# Questions?

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