Integrating China in the International Consortium for Personalised Medicine

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Part II:

Mapping of PM policies and programmes in China

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Meaning and Goals of IC2PerMed

01. Mapping
Identifying Chinese and EU appropriate policies, programmes, stakeholders and standards to consider and involve in developments; Envisioning benefits for healthcare ecosystems and benefits for populations

02. Expertising
Building upon exchanges between experts in PM domains for fostering actionable approaches

03. Exemplifying
Setting concrete practices of successful collaboration over a PM core thematic (biobanks) for illustrating and inspiring research collaborations

04. Engaging
Creating strong bridges with key stakeholders from the EU, China and beyond, integrating Chinese stakeholder in ICPerMed and liaising with international peers
WP1
MAPPING OF PERSONALIZED MEDICINE POLICIES AND PROGRAMMES IN EUROPE AND CHINA

- **Task 1.1** Mapping PM policies and programmes
- **Task 1.2** Mapping health research and innovation initiatives and stakeholders
- **Task 1.3** Mapping PM approaches and standards
- **Task 1.4** Assessment of current health research and innovation collaborations

**Output of WP1:**

- D1.1. Scoping paper: Review on health research and innovation priorities in Europe and China
- D1.2. Map of major funding agencies and stakeholders in Europe and China
- D1.3. Mapping paper: Towards closer EU-China collaboration in PM
Mapping methods and results in WP1

- Desk Research
- Field-trip
- Interview

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Timeline of PM development in China

- **1970S**
  - The concept of "personalized medicine"

- **2002**
  - Human/Disease Genome Project

- **2011**
  - Toward "Precision Medicine"

- **2015**
  - "Precision Medicine"

- **2016**
  - White Paper on "Precision Medicine" in China

- **2030**
  - Healthy China 2030 Plan Outline
Definition of PM in Chinese scenario

• Precision medicine is defined by the leading Chinese experts at the summit as a new medical model that combines modern technological tools and traditional medical techniques to improve the understanding of human mechanisms and diseases to achieve optimal outcomes for the health of individuals and the general public through care provided in a more efficient, safe and affordable manner.
Policies related to PM

• National Law

• 2020-Biosecurity Law of the People's Republic of China
  • The law clarifies the importance and principles of biosafety and stipulates that biosafety is an important part of national security.
  • It shall come into force on April 15, 2021

• 2019-Cyber Security Law of the People's Republic of China

• 2019-Regulations of the People's Republic of China on the Management of Human Genetic Resources
Policies related to PM

- 2018-Management Measures on National Health and Medical Big Data Standards, Security and Service (Trial)
- 2014-Management Measures on Population Health Information (Trial)
- N/A-Data Security Management Measures (Consultation Draft)
Policies related to PM

• Outline

• 2016-Outline of Healthy China 2030 Plan

• 2016-Outline of National Innovation-driven Development Strategy

• Guidance

• 2015-Tumour personalized treatment testing technology guide (trial)

• 2017-Infectious Disease-Related Personalized Medical Molecular Detection Technology Guide
PM Programs

- The 13th Five-Year Plan for National Economic and Social Development of the People’s Republic of China – MOST
  - By 2030, 60 Billion RMB investment
  - Research platform
  - Core key technology
  - Drugs, vaccines, devices and equipment
  - Guidelines, clinical pathways and interventions
  - Health system reform
PM Programs

- The 13th Five-Year Plan for National Economic and Social Development of the People’s Republic of China – MOST
  - Health and Health Technology Innovation
  - Biotechnology Innovation
  - Biological Industry Development
  - Health and healthcare
  - Informatization
PM Action Plans

- **2014-Notice on Strengthening the Management of Clinical Use of Gene Sequencing Related Products and Technology**
- **2015-Notice of the National Development and Reform Commission on the implementation of major engineering packages for emerging industries**
  - Build 30 gene detection technology application demonstration centers within 3 years to rapidly promote the clinical application of gene detection and the domestication of gene detection instruments and reagents.
- **2017-Technical Specifications of Microarray Gene Chips for Personalized Medical Testing**
Identification of Stakeholders in China

Stakeholders

- Industry
- Hospital
- Investment
- Patients
- Academic Institutions
- CRO/CDMO
- NHSA
- NMPA
- NHC
- MOST
- Patients
Conclusion

• The development of PM needs to focus on communities and hospitals
• The development of PM needs the support of big data
• The development of PM requires the joint efforts of politics, industry and academia
• The development of PM needs to develop simultaneously with regulatory science
• The development of PM requires international cooperation
China Team