

# Australia-Taiwan cross-sectoral collaborations to grow the healthcare industry

Dr Chung-Liang Chien
CEO, Institute for Biotechnology and Medicine Industry



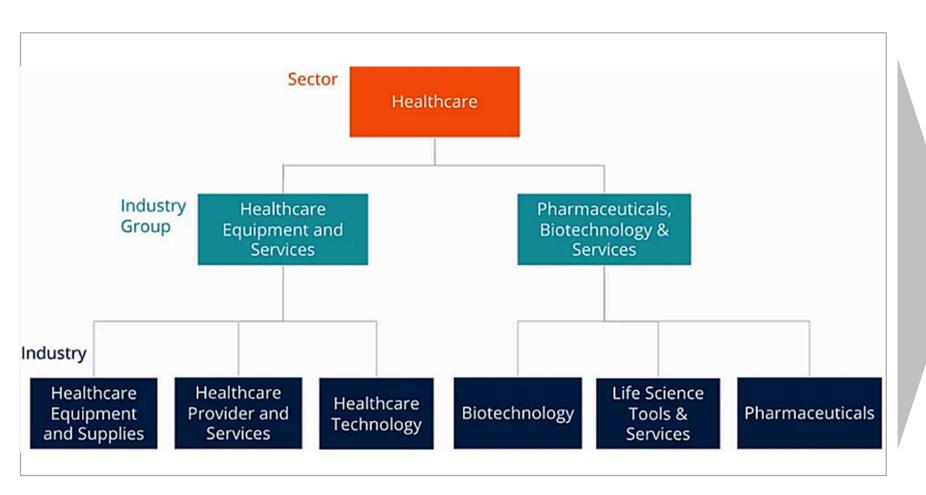
# Healthcare from disease treatment to prevention

☐ Healthcare nowadays provides individuals with products and services ranging from prevention, health promotion, diagnosis to treatment.

Disease Sub-Healthy **Disease burden and Cost** Healthy Current **Earliest** Intervention Earliest Curability molecular 精準治療` clinical **Baseline Risk** Detection Detection 疾病風險 分子診斷 最早臨床診斷 **Detection limit** Time Risk assessment Early detection **Precision management Health promotion Prevent progression** Smart healthcare Prevention Early diagnosis Precision Therapy 早期診斷 預防和健康促進 精準治療 **Precision Health Planning** 

# Healthcare sector by GICS definition

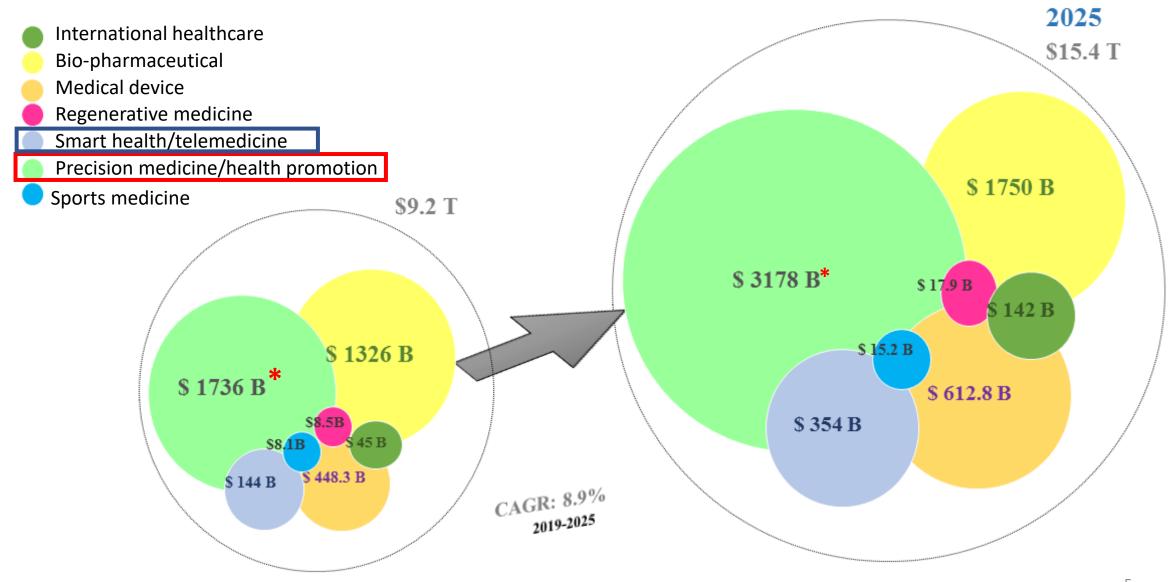
☐ The healthcare sector includes the following subsections, as per Global Industry Classification Standard (GICS)



#### **Global Markets:**

- International
  Healthcare
- Bio-pharmaceutical
- Medical device
- Regenerative medicine
- Smart health
- Precision medicine
- Sports medicine

# Global healthcare markets hit \$15 T by 2025



Source: Research And Markets, Grand View Research, Fortune Business Insights, Global Market Insights, compiled by IBMI, RBMP (2021)



### Taiwan's ICT sector in healthcare

#### Mobile health

# Medical equipment

#### Smart hospital

#### Gene/cell therapy

#### Biomedicine

Companies











Product pipelines

- TelehealthIoT solutionsWearables
- -Wearables
- Health management

- X ray / ultrasound
- ■Micro CT
- Surgical / service robots
- Capsule endoscopy
- **■**Hemodialyzer
- Molecular pathology
- ■Vital sign monitor

- Smart
  ward/operating
  room
- Surgical VR
- ■Al solution
- **■**HMS
- ■EMR / EHR
- ■Medical display

- ■DNA sequencer
- ■DNA microarray
- Protein & genetic testing
- ■CTC system
- **■**Cellular therapy

- ■Al chip
- Biochip for gene sequencing
- ■RF & Wireless chip
- Biosensor
- ■Display component
- Organic semiconductor

Areas of application













## Cross-industry cooperation at a glance











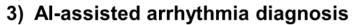












4) AloT device/equipment

























1) Genome database for Chinese

Proton therapy / 8K medical imaging



















4) Cell therapy / AloT solutions





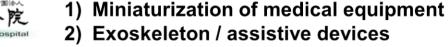


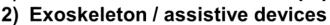














4) Digital pathology / health management































- 1) Telehealth / IoT products
- **Auto detection of CTC**
- Data integration of sports health
- Al-assisted detection of disease

# Cross-industry collaborations in the spotlight, 2020

Company	Products	Technologies	Progress
Wistron	Exoskeleton 'Keeogo'	Motion sensing, AI, electrical auxiliary power system	Certification obtained- Taiwan, US
Acer	VeriSee DR Al-assisted solutions for Diabetic Retinopathy (DR) identification	Deep learning, edge computing	Certification obtained- Taiwan
Delta Electronics DelBio	Dagene G1 Automated Nucleic Acid Analysis System	Integration of microfluidics, optics, temperature controller and genomic testing	Certification obtained- EUA
Sharp & Innolux	Flexible X-ray detector 8K medical display	Flexible FPD Indium gallium zinc oxide (IGZO)	Certification obtained- Taiwan, US, Europe Product launched
Inventec Good Future Bio.	IronMag® CTC processor	Negtive seletion, CTC isolation, image capturing, Al-assisted diagnostics	Closeout phase
BenQ (Qisda)	BenQ Qflux Dialyzer	Phosphorus-removal membrane	Closeout phase













# 'In the midst of every crisis, lies great opportunity'

- Enhance resilience of the healthcare supply chain
- Export of medical and technological excellence
  - Develop the guide to epidemic prevention and control
  - ✓ Anti-Covid-19 product pipelines by industry
- □ Accelerate digital transformation and application in healthcare
  - ✓ AloT, 5G and 8K in healthcare business models
  - ✓ EMR/EHR database for research and industry use
  - Policy guidance on positioning Taiwan an ideal place for clinical trials and medical technologies

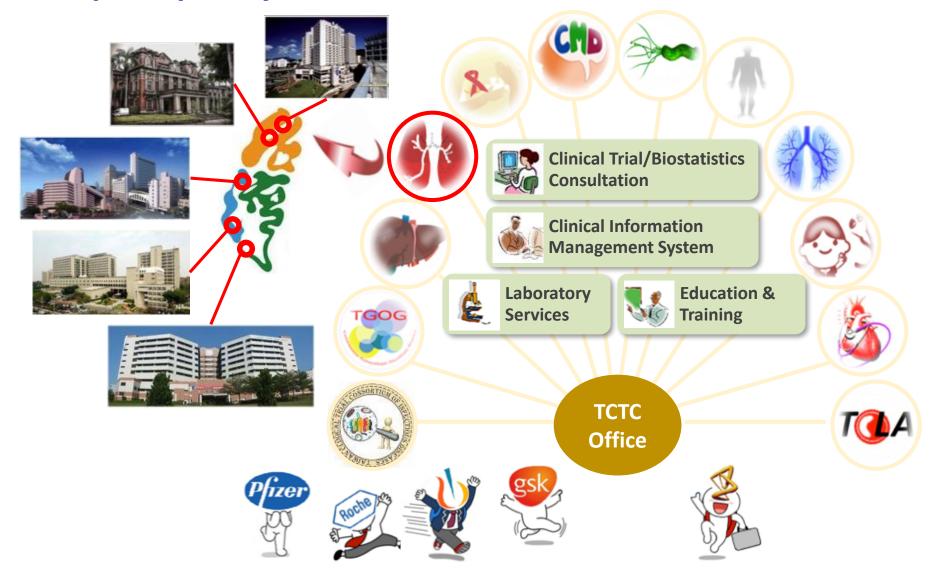


# What we see in healthcare as opportunities

- □ Diagnostic
- □ Clinical trial
- □ Rehabilitation
- Medical informatics

### **Taiwan Clinical Trial Consortium (TCTC):**

One-stop shop for your clinical trials



# 2021 Healthcare EXPO · TAIWAN

2-5 December

Hall 1, Taipei Nangang Exhibition Center (TaiNEX1)



