



InvestHK

The Government of the Hong Kong Special Administrative Region
of the People's Republic of China

Deloitte.

UNLOCKING LIFE & HEALTH SCIENCES POTENTIAL

A Complete Guide to Capturing Opportunities
from Research to Commercialisation in Hong Kong and Beyond



FOREWORD

In the wake of Covid-19, there is an increased focus on the importance of Life & Health Sciences. Under the National 14th Five-Year Plan, Hong Kong, as an international Innovation & Technology (I&T) hub, is instrumental in developing priority sectors to build a better future. Today, it has remained Asia's largest – and the world's second-largest – Biotech fundraising hub that connects investors from the Greater Bay Area and internationally.

Invest Hong Kong (InvestHK), and Deloitte are excited to present this in-depth analysis of Hong Kong's Life & Health Sciences landscape. This report highlights recent milestones as well as key business opportunities generated from our capabilities along the value chain, from upstream research and development to downstream commercialisation and business expansion. Each achievement is a testament to the city's deep commitment to growing the sector.

While developing this study, we are grateful for the views contributed by stakeholders, who have played critical roles in advancing Hong Kong's future.

We hope this booklet will provide valuable insights into the opportunities Hong Kong offers and look forward to welcoming you to be part of the story.

WHY HONG KONG?



An aerial photograph of Hong Kong, showing a dense urban landscape with numerous high-rise buildings and skyscrapers. The city is situated on a peninsula, with the sea visible in the background. The sky is clear and blue. The image is used as a background for the text.

Life Sciences is the key to advancing understanding of the living world and discovering solutions to the world's most pressing challenges. As a city with one of the highest life expectancies in the world, Hong Kong sets its sights on leveraging innovation as an engine to enrich the city's healthcare development.

Hong Kong is an attractive international destination for investors. The city provides a dynamic, data-centric healthcare system that ensures collaboration, drives research excellence to enable next-generation discoveries, builds robust infrastructure to accelerate clinical outcomes, and ensures funding access to accelerate practical applications for startups, small and medium-sized enterprises, and multinationals.

As a special administrative region of China with great emphasis on retaining its high degree of autonomy, Hong Kong has taken the lead in offering investors the distinct opportunity to enjoy an international, business-friendly environment that paves the way for expanding their market reach to capitalise on the opportunities arising from the nation's Healthy China 2030, Greater Bay Area development, and Belt & Road initiative, bringing life-changing solutions to China and beyond.

HONG KONG BY THE NUMBERS



1st

Long Life Expectancy

Ranked first in the world¹ for life expectancy from 2012-2022



Healthcare Efficiency

2nd most efficient city² with extremely low healthcare costs for its residents and top-tier quality



2nd



Intellectual Property

10th

most competitive city in intellectual property rights⁴ to serve as a key IP trading platform and gateway to the Greater Bay Area

3rd



Pharmaceutical Hub

Asia's 3rd largest pharmaceutical hub, following India and Japan, with a high concentration of pharmaceutical companies and exporters³



Funding Environment

Asia's largest and the

2nd

largest Biotech funding hub in the world, following New York⁷



R&D Foundation

5 top-100 universities

in which two distinguished universities⁵ provide the region's leading medical faculties (The University of Hong Kong: 31st, The Chinese University of Hong Kong: 32nd)⁶

¹ Global Health Estimates: Life Expectancy and Leading Causes of Death and Disability, WHO, 2022

² Health Care Efficiency, Bloomberg, 2020

³ Pharmaceutical Market Outlook to 2022, Global Data, 2022

⁴ World Competitiveness Yearbook, Institute for Management Development, 2022

⁵ World University Rankings 2023, QS Rankings, 2023

⁶ World University Rankings by Subject 2023: Medicine, QS Rankings, 2023

⁷ HKEX Annual Report, HKEX, 2021

HONG KONG'S PIONEERING INNOVATIONS

PHARMACEUTICALS



Intranasal Covid-19 Vaccine

Developed a ground-breaking intranasal Covid vaccine that showed high protective efficacy against SARS-CoV-2 Omicron variant, and has already been used in Hong Kong and the Greater Bay Area⁸

Alzheimer's Disease

Facilitated diagnosis and treatment for Alzheimer's through identifying potential solutions for countering Alzheimer's development and ameliorating Alzheimer's-related pathologies in patients under Mainland support to access its database of 10 million Chinese patients⁹

Cancer Care

Revolutionised cancer treatment through the application of CAR-T therapy to treat blood cancer patients¹⁰ and identified potential treatment options for advanced, late-stage lung cancer with CRISPR gene therapy, making remarkable differences in the global cancer landscape¹¹

TRADITIONAL CHINESE MEDICINE



Chinese Medicine Hospital Project

Commenced construction of the region's first hospital to provide an integrated approach to the provision of medical, surgical, gynecological, pediatric, orthopedic and acupuncture services¹²

Chinese Herbal Medicines

Developed alternative methods for treating or managing chronic diseases such as gastric cancer¹³, liver diseases¹⁴, Alzheimer's disease¹⁵

SMART HEALTHCARE



Smart Hospital and Telemedicine

Restructured hospital care from modernising public hospitals through two 10-year Hospital Development Plan¹⁶; established the city's first digital smart hospital, CUHK Medical Centre, at the Chinese University¹⁷

Hong Kong Genome Project

Supported patients and their families look for the potential disease-causing genetic variants through Whole-Genome Sequencing (WGS) analysis, effectively expanding our development in early screening, precise diagnosis and personalised treatment of diseases¹⁸

MEDICAL DEVICES & DIAGNOSTICS



Medical Devices & Equipment

Acted at the forefront of MedTech research and accelerated innovative treatment developed with the application of AI, Machine Learning, and robotics technologies on endoscopic prototypes such as magnetic-guided endoluminal technique¹⁹, robotic-assisted bronchoscopic microwave ablation of lung metastases²⁰

Diagnostics

Led the way in molecular diagnostics, and cancer biomarker tests with notable achievements such as the development of a non-invasive prenatal test for Down Syndrome²¹, blood test for early detection and screening of Alzheimer's disease²², bacterial gene markers test for early colon cancer detection²³, and AI diagnosis of Severe Acute Stroke patients²⁴

⁸ HKU's Covid-19 Intranasal Vaccine Updates, HKU, 2021

⁹ Hong Kong Center for Neurodegenerative Diseases, InnoHK, 2022

¹⁰ HKUMed introduces Hong Kong's first CAR-T cell therapy for blood cancer patients, HKU, 2021

¹¹ CUHK in collaboration with West China School of Medicine co-led world's first-in-human clinical trial using CRISPR technology for lung cancer, CUHK, 2020

¹² TCM Hospital Eyes 2025 Launch, The Standard, 2022

¹³ Chinese herbal medicine compound could help prevent and treat gastric cancer induced by bile reflux, HKBU, 2022

¹⁴ Chinese medicine formulas for nonalcoholic fatty liver disease: Overview of systematic reviews, HKBU, 2021

¹⁵ HKBU develops Chinese medicine new formula for treating Alzheimer's disease, HKBU, 2021

¹⁶ 10-Year Hospital Development Plan, Hospital Authority, 2022

¹⁷ Promoting Development of Telemedicine, Hong Kong Government, 2022

¹⁸ Project Overview, Hong Kong Genome Institute, 2023

¹⁹ AI Guided Magnetic Endoscope Gives Surgeon Uncluttered Hands-free View, CUHK, 2021

²⁰ CUHK performs world's first robotic-assisted bronchoscopic microwave ablation of lung metastases, CUHK, 2023

²¹ Lo Yuk Ming Dennis, CUHK, 2021

²² HKUST Scientists Develop Simple Blood Test for Early Detection of Alzheimer's Disease, HKUST, 2021

²³ CUHK Develops a Novel Faecal Test that can Detect Polyps and Early Colon Cancers with Sensitivity Over 90%, CUHK, 2021

²⁴ HKSH Uses AI for Speedier Diagnosis and Assessment for Severe Acute Stroke Patients Going Beyond the Golden 3-Hour Treatment Time Window, HKSH, 2021



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1

COMPREHENSIVE HEALTHCARE SYSTEM

An efficient dual-track healthcare structure with a dynamic, community-centric pathway, technology-enabled healthcare facilities and a comprehensive suite of insurance services to foster information exchange and business collaboration in healthcare innovation



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2

RESEARCH EXCELLENCE

An end-to-end research powerhouse backed by top-quality medical schools, government research and innovation clusters, and strategic GBA partners to create a complete system with academic training, basic and translational research and commercialisation capabilities



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3

ROBUST INFRASTRUCTURE

Advanced research facilities, incubators, and medical infrastructure and strong industry ecosystem to simplify the process of setting up and scaling up business operations to achieve greater efficiency



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4

EASE OF FUNDING ACCESS

Ease of access to investors through the capital markets, public and private funding sources, including multiple government initiatives and schemes to support Life & Health Sciences startups



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5

COMPETITIVE BUSINESS ENVIRONMENT

Top choice for regional headquarters with strategic location, multicultural talents supported by the "trilingual and biliterate" policy and superior legal, tax and financial systems to better facilitate business operations across the region



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6

GATEWAY TO GBA & NEW MARKETS

A springboard for market expansion through providing medical and talent collaboration, lucrative opportunities under a connected global network with easy access to the vast GBA or new overseas markets where the healthcare industry is experiencing a rapid growth

BACKGROUND

Hong Kong is one of the world's top healthcare systems, praised for being one of the most dynamic Life & Health Sciences (L&HS) hubs to provide top-notch academic institutions and researchers, infrastructure, access to funding, and a competitive business environment that serves as a springboard to global markets.



INDUSTRY COMPOSITION

Hong Kong's L&HS industry is both dynamic and comprehensive. It can be divided into four key sectors:



Pharmaceuticals

Substances or combination of substances and/or applications of engineering and technology solutions to the domain of living systems that are used for modifying physiological functions, making a medical diagnosis, or preventing or treating disease



Medical Devices & Diagnostics

Instrumental or technological applications used for facilitating diagnosis, prevention, treatment, or monitoring of disease or health conditions, for rehabilitation purposes, or for other modifications of body structure and function to improve health



Smart Healthcare

A healthcare system that utilises digital solutions and technology intending to improve health conditions, such as diagnosis, illness, disabilities, maintenance, and betterment of general health intelligently

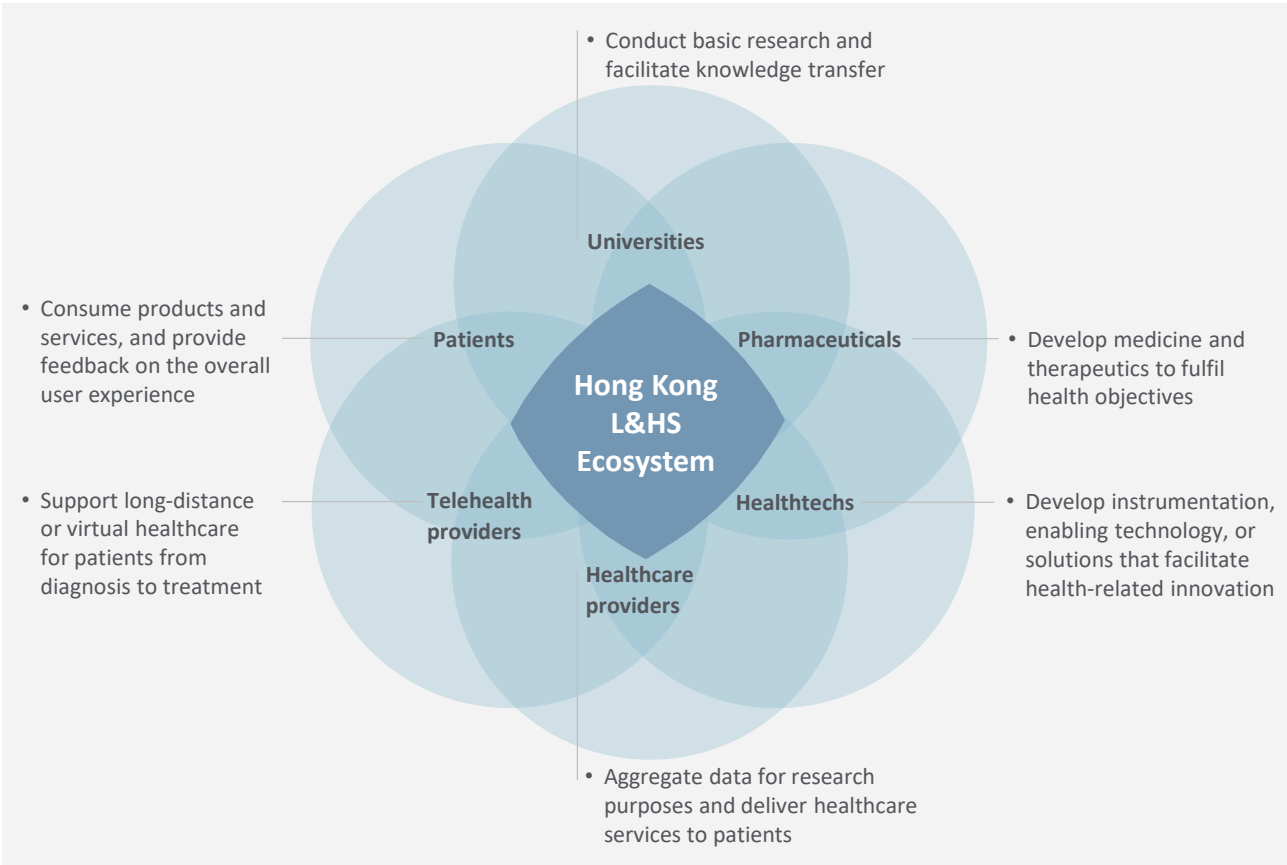


Traditional Chinese Medicine

A range of medical practices drawn from common concepts that originated and developed in China

STATE OF OUR ECOSYSTEM

Hong Kong has an end-to-end L&HS ecosystem, with increasing support from the government to drive development in downstream commercialisation. The ecosystem is split between two value chains. The first consists of pharmaceuticals and healthtech, which invest in research and development to discover and bring new products to market. The second is health services, which begins with prevention, diagnosis, and patient treatment. The following diagram depicts the state of our ecosystem:



HONG KONG'S AMBITIONS

Following China's 14th Five-Year Plan and key national initiatives such as Healthy China 2030, Hong Kong has taken on a critical role as an international Innovation & Technology (I&T) centre. Appointed to leverage innovation to drive growth of priority industries, including L&HS. Remarkably, the city has embarked on a path to enhance primary healthcare, promote healthy lifestyles, improve healthcare access, upgrade healthcare infrastructure, and attract talent. In support, the Government is attracting investors through various policy initiatives:



14th Five-Year Plan²⁵

Achieve the shifts from "Cure-Centric" to "Health-Centric", from "Solving Starvation" to "Nutrient Diversity", from "Pursuit of Capacity" to "Eco-friendly as a Priority", and from "Passive Prevention" to "Active Protection" to become the next global leading powerhouse in Life Sciences and Biotechnology

Belt and Road Life Science Economy Alliance (LSEA)²⁶

Promote Life Sciences innovation, international collaboration, and industrial development. Recognising the importance of Traditional Chinese Medicine, China is on the path to building 30 overseas centres and 50 international co-operation basis between 2021 to 2025

Healthy China 2030²⁷

Make public health a prerequisite for all future economic and social development in China which covers health knowledge, diet, exercise, tobacco control, mental health, and promotion of a healthy environment

Accelerated Drug Approval Process²⁸

Support drug innovation under an established drug registration system where applicants can apply for conditional, priority, and special approval procedures.



Guangdong-Hong Kong-Macao Greater Bay Area Advisory Committee²⁹

Provide high-level advice to the Hospital Authority to draw up strategic directions and produce synergies with the GBA's healthcare system

Healthcare Voucher Scheme³⁰

Expand the use of the current healthcare voucher scheme to the Greater Bay Area cities to benefit Hong Kong citizens who are living in Mainland China

InnoLife Healthtech Hub³¹

Promote the development and adoption of innovative health technologies in Hong Kong and facilitate the sharing of knowledge and experience, and promote collaboration between stakeholders in the Greater Bay Area



Hospital Authority Strategic Plan 2022-2027³²

Outline the five-year strategic development goals of the Hospital Authority, with a focus on changing the service model towards "Smart Care"

Primary Healthcare Blueprint³³

Set out a strategic roadmap by the Health Bureau for improving the overall health of Hong Kong population, providing accessible and comprehensive services, and establishing a sustainable primary healthcare system

²⁵ Outline of the 14th Five-Year Plan (2021-2025), The State Council of the People's Republic of China, 2021

²⁶ The Belt and Road Initiative, HKTDC, 2023

²⁷ Healthy China Action Plan, World Health Organization, 2023

²⁸ Clinical Research Regulation For China, National Institutes for Health, 2020

²⁹ Press Release, Hospital Authority, 2022

³⁰ Elderly to enjoy health care vouchers in more GBA hospitals, Health Chief, 2022

³¹ Milestones, HSITP, 2023

³² Hospital Authority 2022-2027, Hospital Authority, 2021

³³ Primary Healthcare Blueprint, Health Bureau, 2022



PILLAR 1: COMPREHENSIVE HEALTHCARE SYSTEM

KEY VALUE PROPOSITION AT A GLANCE



Dual-track System

An efficient, dual-track healthcare structure to offer opportunities in the public and private sectors



Digital Healthcare

A data-centric system to provide access to timely and accurate clinical data



Primary Healthcare

A community-centric pathway to foster innovations in essential healthcare



Insurance Services

A comprehensive suite of insurance services to drive the adoption of innovative consumer products

COMPREHENSIVE HEALTHCARE SYSTEM

As one of the world's healthiest cities, Hong Kong offers a comprehensive healthcare system to provide high-quality, accessible, and affordable care, sustaining the longest life expectancy of 85 years compared to the rest of the world.

Currently, the local healthcare system is dual-track, with the public and private sectors complementing each other to improve service provision. Several government initiatives such as digital health, public-private partnership (PPP), health insurance schemes, and primary healthcare empowerment are also in place to further modernise the delivery model to drive sustainable development of public health.



HONG KONG'S HEALTHCARE SYSTEM AT A GLANCE



Hong Kong's average life expectancy is 85.4 years old, while the world's average life expectancy is 72.8 years³⁴



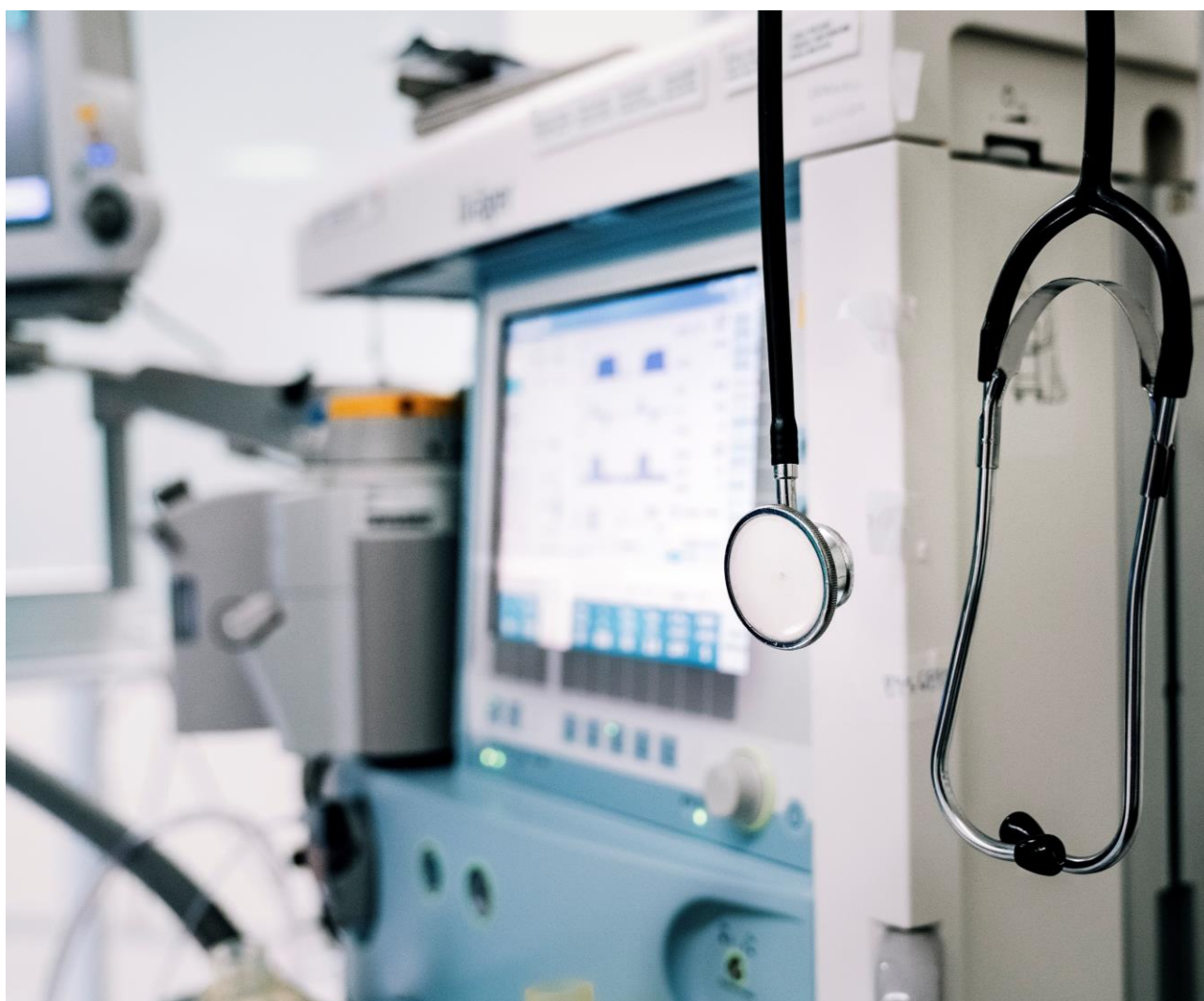
Immunisation coverage of infants born in 2020 was 95% and above for all recommended vaccines³⁵



The number of general outpatient service attendances under the Hospital Authority amounted to 5.4M in 2020³⁶



One of the highest expenditures on healthcare in Asia: Hong Kong health expenditure (as % of GDP) increased from 3.7% (in 1989/1990) to 6.8% (2019/2020)³⁷



³⁴ World Population Prospects, United Nations, 2023

³⁵ Health Facts of Hong Kong, Department of Health, 2022

³⁶ Health Facts of Hong Kong, Department of Health, 2022

³⁷ Hong Kong's Domestic Health Accounts (DHA), Health Bureau, 2019

DUAL-TRACK SYSTEM

Hong Kong boasts one of the world's healthiest populations. The dual-track healthcare system comprising public and private hospitals allows patients to flexibly choose between the public system, which covers a comprehensive coverage, or the private system, which offers premium customer experience and freedom of choice

for patients. Public healthcare is subsidised, making the value to price trade off one of the best in the world. The private system gives patients a choice of practitioners that best fits their medical needs for a more comfortable experience, ranking #7 in choice of medical care globally³⁸

Key Statistics of end-2022³⁹



To better combine resources of the public and private sectors, a number of Public Private Partnership (PPP) programmes have been introduced:

- **General Outpatient Clinic Public-Private Partnership Programme:** Patients attending Hospital Authority (HA) Outpatient clinic can be subsidised to receive primary care service from private healthcare providers
- **Haemodialysis PPP Programme:** Patients receiving haemodialysis treatment can receive haemodialysis in the community.
- **Radiological Investigation Services:** HA cancer patients can be referred to the private sector for radiological diagnostic examinations
- **Colon Assessment PPP Programme:** Patients invited by HA can choose a private specialist for colon assessment
- **Cataract Surgeries Programme:** Patients on the HA waiting list can receive cataract surgeries by private ophthalmologists
- **Glaucoma PPP Programme:** Patients receiving glaucoma treatment in HA can receive private specialist services within the PPP

³⁸ World Index of Healthcare Innovation, 2021

³⁹ Health Bureau, 2022

PRIMARY HEALTHCARE EMPOWERMENT

In addressing the challenge of an ageing population and the increasing prevalence of chronic disease, the primary healthcare blueprint⁴⁰ was introduced in 2022 to focus on prevention, early detection, and diagnosis.

Key Visions of the Blueprint

Develop a community-based primary healthcare system

To foster a district-based, family-centric community healthcare system with District Health Centres (DHC) to co-ordinate district healthcare services

Strengthen primary healthcare governance

To mitigate primary healthcare services to the district-based community health system with a solid management system of standard setting and quality assurance

Consolidate primary healthcare resources

To spearhead chronic disease prevention and management to enhance the accessibility and affordability of primary healthcare services within the community

Reinforce primary healthcare workforce

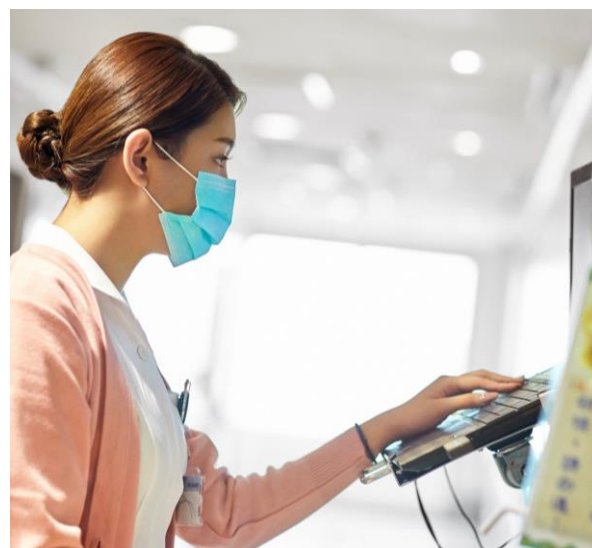
To ensure the quality of primary healthcare services is backed by a qualified workforce equipped with the necessary knowledge and skills

Improve data connectivity and health surveillance

To create an effectively connected digital healthcare data framework for sharing of health records among patients and healthcare service providers

Community-based Healthcare Services

In Hong Kong, community-based healthcare services are provided by both public and private sector organisations, offering a wide spectrum of services, including health education and promotion, disease prevention and management, primary and elderly care, as well as home and mental health services. Community-based healthcare services, as first point of contact for patients, provide accessible and affordable healthcare services with ease.



DIGITAL HEALTHCARE

Plagued by the global shortage of doctors, Hong Kong started developing smart healthcare over a decade ago, to start the transformation into a smart city. Relevant measures are also outlined in Hospital Authority (HA) Strategic Plan 2022-2027⁴¹.

HA Go

Besides Smart Hospital Initiatives, Hong Kong is working hard to improve the digital patient experience. HA Go, by Hospital Authority, is a one-stop mobile platform designed to cover patients' healthcare journey, including appointments for outpatient services, medication reviews, and much more.

Amidst the COVID-19 outbreak, HA has expanded the application of teleconsultation services to patients, such as psychiatric patients or those who require follow-up consultations. Allied health staff has also used videoconferencing to follow up on treatment or support rehabilitation through HA's mobile app "HA Go".

Telehealth

Telehealth comprises elements such as teleconsultation, telemonitoring (e.g., on patient's clinical data) and tele-support, which empowers patients and carers by providing them with accessible health education and decision-making options. The Hospital Authority (e.g., through Hospital Authority "HA Go" app for videoconferencing services) and private sectors have expanded the application of teleconsultation services amidst the pandemic.

The Hong Kong government has launched several pilot projects to test the use of

telemedicine in delivering healthcare services. The Telemedicine Pilot Project is a joint initiative between the Hospital Authority and the Department of Health, aimed at providing remote consultations to patients in remote areas or those with limited mobility. Since its launch in 2018, the project has seen great success for patients with chronic illnesses. It has expanded to cover other medical specialities, bringing new healthcare opportunities for overseas companies in the telehealth market.

Electronic Health Record Sharing System (eHealth)⁴²

With over 30 years of development, Hospital Authority established a comprehensive electronic patient data and solid digital foundation with a well-connected inter-hospital and inter-clinic network. To further connect all the stakeholders in the healthcare ecosystem (e.g., Private clinics and hospitals, Hospital Authority, Department of Health, Laboratories, and Elderly Homes), the Electronic Health Record Sharing System (eHealth) is developed. It provides an electronic platform that aims to build up free and lifelong electronic health records for all members of the public.

⁴¹ Hospital Authority Strategic Plan 2022-2027, 2022

⁴² Electronic Health Record Sharing System, eHealth, 2023

SUPPORTIVE INSURANCE SERVICES

As private healthcare services could be costly in Hong Kong, the city has developed a comprehensive suite of insurance services to support our healthcare ecosystem.

Introduced by the Government in April 2019, the Voluntary Health Insurance Scheme (VHIS)⁴³ aims to enhance the accessibility of private medical facilities through better financial protection. In enhancing the

comprehensiveness of insurance offerings, insurers have also introduced wellness programmes to shift towards a prevention-based model, developed customised solutions to offer greater flexibility for policyholders, telemedicine and other digital services to better adapt to the modern ways living, significantly opening new opportunities for healthcare solutions providers.

Key Fact



- Hong Kong ranked first in terms of insurance penetration globally in 2020 - more than 20%⁴⁴
- A total of 13 of the world's top 20 insurers conduct their businesses in Hong Kong
- A total of 17 insurance companies are currently listed on the Hong Kong Exchanges & Clearing Limited
- More than 1 million policies had been issued under the VHIS, according to the latest figures published by the Government as of March 2022⁴⁵

“The next chapter in Hong Kong's Life and Health Sciences story will be on creating value through impact-driven investments, acceleration of responsible governance, socioeconomic sustainability, and people-matched integration into a centre with a world-class standard of care. In this connection, the Biomedical Impact Association will integrate resources and empower authorities, institutions, and caregivers as partners to tackle unmet patient-centric needs.”



Dr. Patrick Lam
Chairman,
Biomedical Impact
Association

⁴³ Voluntary Health Insurance Scheme, Hong Kong Government, 2023

⁴⁴ Insurance Growth Opportunities Eyed, Hong Kong Government, 2022

⁴⁵ Number of Voluntary Health Insurance Scheme Policies Exceeds 1 million, Hong Kong Government, 2022

Hong Kong's Healthcare Services' Gatekeeper

Established in 1990, the Hospital Authority (HA) is Hong Kong's statutory body managing all of Hong Kong's public hospitals. It manages 43 public hospitals and institutions, organised into seven hospital clusters based on geographic area. In 2021, the number of specialist outpatient clinical consultations reached eight million⁴⁶. The hospitals under its management constitute an end-to-end ecosystem of healthcare services.

Developing Patient Data Platform under Hong Kong's Smart City Agenda

HA has a long history of digitalisation of medical processes and data. HA has developed the Clinical Management System (CMS) - an advanced, comprehensive electronic medical records system which has been deployed at across all HA healthcare facilities – providing a detailed, standardised and interoperable healthcare record covering three decades of care for each patient visiting the HA. Under Hong Kong's smart city agenda to push forward a more efficient system for the city, HA is further developing all the public hospitals into “Smart Hospitals”. The city's robust technological infrastructure, strict adherence to data privacy, and high mobile penetration rate have made it possible to enable digitisation and transformation for public and private hospitals, actively bringing in new service models and innovative technologies around the world to improve operational efficiency and health outcomes. The Electronic Health Record Sharing System (eHealth) developed by the Hong Kong SAR Government supports transforming the entire healthcare ecosystem in Hong Kong. It aims to build up free and lifelong electronic health records for all members of the public. This electronic platform has proven revolutionary for patients and healthcare providers, as this is a cost-effective method of storing patients' medical history.

It also bridges private and public hospitals together through the public-private (PPP) programme, unifies medical records of the entire population under a single system and enables instant access to an entire family's record for healthcare providers.

Bringing New Market Opportunities with Digital Healthcare Development

The large success of the eHealth system is expected to bring forward a new era in Hong Kong's healthcare system. As of April 2023, eHealth users have nearly reached six million, over three quarters of Hong Kong's citizens. It is expected that this will enhance the efficiency and quality of healthcare services and encourage early detection of diseases and diagnosis as generations of medical data can be stored. Patients can monitor changes in physical conditions and physicians will be able to easily access patient data to reduce consultation times.

Further, considerations are being made to initiate big data collaborations with other regions, such as the GBA, to promote information-integrated care. Under the Data Collaboration Lab⁴⁷, a big data R&D facility launched by the Hospital Authority in 2019, researchers who want to use HA data will find it readily available. To secure data privacy, researchers are required to apply for access to the Hospital Authority Data Collaboration Laboratory (HADCL) for conducting health data collaboration projects. HA and her collaborators have already used this massive, high-quality dataset to develop AI models which are now deployed through the HA. The HA is now collaborating with HKSTP to further open up access to startups and other developers. It is believed that these valuable data insights can help investors better identify new market opportunities and develop innovative products and services that solve medical problems that cannot be solved in conventional ways.



⁴⁶ Hospital Authority, 2022

⁴⁷ Data Collaboration Lab, Hospital Authority, 2019

The backbone of Hong Kong's High-Quality Private Hospital Care

As part of Hong Kong's dual-track healthcare system, the Hong Kong Private Hospitals Association (HKPHA) serves to promote the provision of high quality, individualised care in the 13 private hospitals throughout Hong Kong. Its central role is to facilitate cooperation among private hospitals in sharing best practices, participating in international hospital accreditation schemes to assure quality and promote continuous improvement, and representing private sector perspectives on the healthcare system to the government. Through robust credentialing and clinical governance mechanisms, much effort is put into ensuring ethical practices among practitioners and high standards in clinical care. Continuous investment in new technology and associated training bring our services to the forefront of industry innovations to offer the best available treatment to patients.

Bringing Innovative Solutions through PPP Programmes

Besides serving private patients, Hong Kong's private hospitals actively support various Public Private Partnership (PPP) Programmes to alleviate the heavy burden of the public sector, and help shorten the waiting time of public patients for investigations and treatment through heavily discounted pricing. Another major collaboration is the Electronic Health Record Sharing System where public and private providers contribute and share key patient information to optimise clinical care across sectors.

Contributing International Experiences Towards the Country's Healthcare Services Development Blueprint in the GBA

Consistently positioning ourselves to benchmark with the best medical centres in the world, Hong Kong is at the forefront of timely introduction of new and effective drugs and treatments, especially in the private sector. There is demand across the border as some drugs and therapeutics, especially in rapidly growing areas like oncology, may not be widely available in the Mainland. We expect our healthcare industry to experience further growth following the reopening between Hong Kong and the rest of China. There is also great potential in leveraging our capabilities to the country's mission of piloting medical services in the Greater Bay Area to better integrate with international practices, such as introduction of new drugs and treatments, training and credentialing of healthcare professionals, and approach in hospital accreditation. At the same time, we must also learn from Mainland counterparts on their superior practices to continuously improve on our own.

"Our healthcare system is distinguished from others by comprehensive digital health capabilities focused on improving clinical quality and clinical workflow, with extensive decision support, decades of full records interoperability, extensive data sharing between public and private doctors and integrated support for patient engagement. Three decades of high-quality clinical data will also be critical in accelerating R&D."



Dr. Ngai Tseung Cheung
Head of IT & Health Informatics,
Hong Kong Hospital Authority

"Hong Kong's healthcare system is world-renowned in service and quality due to highly skilled medical practitioners, who uphold international standards and professionalism. In public health crises such as Covid-19, private hospitals played pivotal roles in supporting public hospitals in combating the epidemic through running community testing centres, vaccination centres, and provision of inpatient, outpatient and telemedicine services to citizens and patients in need."



Dr. William Ho, JP
Chairman,
Hong Kong Private Hospitals Association



PILLAR 2: RESEARCH EXCELLENCE

KEY VALUE PROPOSITION AT A GLANCE



Academic Training

Top-notch universities and medical training institutes to cultivate future medical talents



Basic Research

A wide range of world-renowned researchers drive scientific discoveries



Translational Research & Commercialisation

Strong connectivity to GBA to offer a one-stop hub from scientific discovery to commercialisation

A world-class talent base supports Hong Kong's L&HS industry and contributes greatly to global research efforts.



Dr. Grace Lau
Head of Institute for Translational Research, Hong Kong Science and Technology Parks

"HKSTP has provided a perfect platform for companies to develop R&D and business. Even without a significant initial investment, one could leverage HKSTP's readily available, built-to-suit environment, which provides all the necessary facilities and support services to help the business fly – from idea conceptualisation to R&D to incubation and commercialisation."



Dr. Gina Jiang
Managing Director, Hong Kong Institute of Biotechnology

"HKIB accelerates the cell gene therapy process from bench side research to clinical therapeutics by providing GMP facilities that comply with the Pharmaceutical Inspection Co-operation Scheme (PIC/S) standard for Advanced Therapy Products (ATP) and process development services by highly skilled professionals to help clinicians and companies meet industry requirements from clinical trials to commercial scale production, bringing speed to market and propelling the adoption and growth of medical innovations."

ACADEMIC EXCELLENCE

According to Quacquarelli Symonds (QS) University Rankings, universities in Hong Kong are known for the quality of academic research and have five universities ranking within the Top 70. Hong Kong is home to several universities that have made significant research contributions. Below are some recent research achievements from Hong Kong's top universities:

Universities ranking within the Top 70 (2024)⁴⁸

University	Ranking
The University of Hong Kong	26
The Chinese University of Hong Kong	47
Hong Kong University of Science and Technology	60
The Hong Kong Polytechnic University	65
City University of Hong Kong	70

Teaching hospitals in Hong Kong

- Prince of Wales Hospital
- Prince Philip Dental Hospital
- Queen Mary Hospital
- CUHK Medical Centre
- Hong Kong Sanatorium and Hospital
- Gleneagles Hong Kong Hospital
- The University of Hong Kong – Shenzhen Hospital



University of Hong Kong (HKU)

Blood Cancer: Introduced Hong Kong's first CAR-T cell for blood cancer patients through the application of CAR-T (genetically modified T cells to target and destroy cancers)⁴⁹

Stem Cell Research: Developed a new technique for generating stem cells from human skin cells, called "chemical reprogramming", which could have a significant impact on regenerative medicine and the treatment of diseases, such as Parkinson's and Alzheimer's⁵⁰

Chinese University of Hong Kong (CUHK)

Lung Cancer: Designed the world's first-in-human Phase 1 clinical trial, proving that the CRISPR gene-edit therapy is safe and feasible as a new treatment option for patients with late-stage lung cancer⁵¹

Down Syndrome and Cancer Detection: CUHK developed a non-invasive prenatal test for Down Syndrome, which is greater than 99% accurate and has been widely adopted in over 90 countries⁵² Based on the similarity found in cell-free fetal DNA molecules and tumour DNA molecules, CUHK has further developed technologies that allow the detection of dozens of cancer types

World's First Development of a Novel Faecal Test to Detect Early Colon Cancers: CUHK developed the world's first faecal "bacterial gene markers" test with a 94% sensitivity, a non-invasive approach that can detect colorectal cancer at an early stage using only a faecal test and has a higher sensitivity than the current screening tools⁵³

Hong Kong University of Science and Technology (HKUST)

Tumour Cell: Developed a novel technology which can allow genomic DNA and RNA sequencing to be carried out simultaneously in single cells of both frozen and fresh tissues, and identified rare brain tumour cell "spies" disguised as normal cells with this method, facilitating cancer research and opening new directions for drug⁵⁴

Alzheimer's Disease Detection: Developed a new blood test that can detect Alzheimer's disease with a 96% accuracy level by measuring levels of neurogranin as well as other biomarkers for the disease⁵⁵

The Hong Kong Polytechnic University (PolyU)

3D Printing of a Human Heart: Successfully 3D-printed a human heart using a patient's cells, which could pave the way for personalised organ transplantation in the future⁵⁶

Bone Regeneration: Developed a new material that can promote bone regeneration and repair from natural polymers in laboratory tests, which poses great potential for a new treatment for hip fracture from osteoporosis⁵⁷

City University of Hong Kong (CityU)

Circulating Tumour Cells (CTC) Detection: Developed a technology that can accurately perform early screening for cancer cells and effectively monitor disease status with an accuracy rate of over 90%⁵⁸

Antibiotics: Identified a super antimicrobial peptide that can kill over 30 common bacteria, which can potentially be used to develop new drugs that can be combined with other antibiotics for better medical efficacy⁵⁹

⁴⁸ World University Rankings, Quacquarelli Symonds, 2024

⁴⁹ HKUMed introduces Hong Kong's first CAR-T cell therapy for blood cancer patients, HKU, 2021

⁵⁰ Chemical Reprogramming of Human Somatic Cells to Pluripotent Stem Cells, HKU, 2023

⁵¹ CUHK in collaboration with West China School of Medicine co-led world's first-in-human clinical trial using CRISPR technology for lung cancer, CUHK, 2020

⁵² Lo Yuk Ming Dennis, CUHK, 2021

⁵³ CUHK Develops a Novel Faecal Test that can Detect Polyps and Early Colon Cancers with Sensitivity Over 90%, CUHK, 2021

⁵⁴ HKUST Breakthrough Identifies Rare Tumor Cell "Spies" Shedding Light on Previously Hidden Cancer Features, HKUST, 2023

⁵⁵ HKUST Scientists Develop Simple Blood Test for Early Detection of Alzheimer's Disease, HKUST, 2021

⁵⁶ PolyU U3DP named top university 3D printing labs worldwide, PolyU, 2022

⁵⁷ Photocrosslinkable biomaterials in bone regeneration, PolyU, 2019

⁵⁸ Are we ready to endorse new multiple cancer early-detection tests?, CityU, 2023

⁵⁹ Understanding Antibiotic Treatment Failures in Salmon Aquaculture, CityU, 2020

BASIC RESEARCH

While more foreign pharmaceuticals have set up R&D centres in China to carry out early research and clinical trials, Chinese pharmaceuticals have also shown accelerating investment in R&D. Recognising that R&D is the foundation of I&T, the Central Government has made available national R&D projects for Hong Kong researchers. As of 2021, this birthed 18 unicorns and produced internationally acclaimed research by award-winning researchers.⁶⁰

Hospital Authority (HA) Data Collaboration Laboratory

To support the formulation of healthcare policies, facilitate biotechnological research, and help improve clinical and healthcare services, the Hospital Authority Data Collaboration Laboratory is set up to

enhance data collaboration between Hospital Authority and external parties for conducting health data collaboration projects. The project is expected to open to a broader community soon.

InnoHK Clusters

In support of the HK Government InnoHK Clusters, Hong Kong's universities have joined forces with world-class universities to pool talent from around the world to

position Hong Kong as a global research collaboration hub. Some examples of health-related projects⁶¹ under InnoHK include:



Establishment of the **HKU-Pasteur Research Centre** by the University of Hong Kong



Establishment of an **Eye and Vision Research Centre** by the School of Optometry by the Hong Kong Polytechnic University



Establishment of **Microbiota I-Center (MagIC)**, the first Asia-based, leading International Microbiome Innovation Centre, by the Chinese University of Hong Kong, conducting research together with University of Cambridge, The University of Chicago and The University of Melbourne



Establishment of the **Hong Kong Center for Neurodegenerative Diseases** by the Hong Kong University of Science and Technology, conducting research together with University College London and Stanford University School of Medicine

⁶⁰ Hong Kong Unicorns List HK 2021, Hong Kong X Foundation, 2021

⁶¹ Health@InnoHK, InnoHK, 2023

Clinical Trial Centres

The HKU Clinical Trials Centre and CUHK Phase 1 Clinical Trial Centre were established to accelerate Hong Kong's L&HS development. Since 2014, the two have commenced trials on the safety, pharmacology, and efficacy of various treatments, especially cancer, including liver, lung, breast, colorectum, kidney and other solid tumours. Clinical trial results from both centres are recognised by the Chinese-based National Medical Products Administration (NMPA) and other international regulatory authorities such as the US-based Food and Drug Administration (FDA).



Aside from universities, clinical trial centres in Hong Kong's hospitals have also gained notable recognition. In 2020, Hong Kong was selected as one of the global sites for the Phase 3 clinical trial of the Covid-19 vaccine developed by Pfizer and BioNTech. Moreover, The Hong Kong Sanatorium and Hospital was selected as a clinical trial site for the Pfizer-BioNTech Covid-19 vaccine. It was accredited by the NMPA to push forward new drug assessments in its Comprehensive Oncology Centre.⁶² Clinical trial centres clients such as pharmaceutical companies, clinical investigators and contract research organisations (CROs) will find that Hong Kong is an ideal location for conducting large-scale clinical trial studies because of its stellar reputation in safety and effectiveness.

⁶² Medical Research, Hong Kong Sanatorium & Hospital, 2023

TRANSLATIONAL RESEARCH & COMMERCIALISATION

University Technology Transfer Office

In getting innovations off the ground, many universities in Hong Kong have established technology transfer or knowledge transfer offices to facilitate the commercialisation of research output generated by their research labs. The services offered include connecting the research community with industry players, managing activities related to intellectual property, promoting entrepreneurship activities and marketing the university's available technologies. These initiatives allow industry players to leverage various leading-edge technologies and benefit from Hong Kong's rich research expertise.

ATP GMP Centre

Outside campus environments, startups can also work with various translational research offices to accelerate the conversion from scientific discovery to application. In 2023, the University of Hong Kong (HKU) launches the HKUMed Laboratory of Cellular Therapeutics as part of its partnership with HKSTP. The leading-edge GMP laboratory will facilitate the development of clinical-grade ATPs as investigational medicinal products (IMP) for clinical trials to accelerate the transformation from biotech research discoveries into clinical applications.⁶³

In addition, the Hong Kong Institute of Biotechnology (HKIB), a research institute

of CUHK, partners with HKSTP to establish the Advanced Therapy Products (ATP) Good Manufacturing Practice (GMP) Centre, offering collaborators flexible manufacturing solutions without the capital investment of building its own.⁶⁴

Technology Parks

Further, startups are also empowered by several technology parks in Hong Kong, including HKSTP, Cyberport as well as the soon-to-be-built Hong Kong-Shenzhen Innovation and Technology Park in which Hong Kong has earmarked HKD 20B for the first phase of park development to drive further collaboration in research and product and solution roll-out between Hong Kong and other Mainland cities in the GBA through the InnoLife Healthtech Hub initiative.⁶⁵

GBA Integration

In further enhancing Hong Kong's commercialisation capability, cross-border healthcare facilities through a sole proprietorship, JV, and cooperation in nine Mainland municipalities to establish a regional healthcare cluster.⁶⁶ Through collaborating with Chinese partnering institutions, Hong Kong will be able to access sizeable samples and subjects for more extensive trials, more affordable infrastructure and labour resources and foster R&D growth from clinical trial studies to an integrated supply chain for innovation production.

⁶³ HKSTP AND HKU collaborate to establish state-of-the-art PIC/S GMP facility for advanced cell therapies, HKSTP, 2023

⁶⁴ About HKIB ATP GMP Centre, HKIB, 2023

⁶⁵ HKSTP welcomes budget to enrich Hong Kong's I&T ecosystem continued allocation of resources to further the city's I&T development, HKSTP, 2022

⁶⁶ Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong Government, 2019

THE UNIVERSITY OF HONG KONG CLINICAL TRIALS CENTRE

CASE STUDY

Driver of Hong Kong Clinical Research

Established in 1998 by The University of Hong Kong (HKU) under its Medical Faculty, The University of Hong Kong Clinical Trials Centre (HKU-CTC) is a professional clinical research organisation and the central management platform for clinical studies conducted under HKU and Queen Mary Hospital (QMH), HKU's affiliated teaching hospital. Over the past 25 years, HKU-CTC has facilitated over 1,800 clinical studies in pharmaceutical products, cell/gene therapies, Chinese/herbal medicines, medical devices, diagnostics and other medical methods/technologies. Alongside other local players, including Prince of Wales Hospital, Hong Kong Sanatorium & Hospital and Hong Kong Eye Hospital, HKU/QMH received accreditation from the China National Medical Products Administration (NMPA) as a recognised clinical trial institution and produces high-quality clinical trial data acceptable to global regulatory bodies such as the US Food and Drug Administration (FDA) and European Medicines Agency (EMA).

One-stop Shop for Accelerating Scientific Clinical Development

Leveraging Hong Kong's international connections, world-leading medical schools and key opinion leaders in medical sciences, and robust public healthcare system, HKU-CTC offers exceptional added value to the clinical development of novel medical products by acting as a one-stop shop for sponsors, CROs, investigators and research institutions – from clinical study design and protocol development, ethics and regulatory affairs, project planning, management and monitoring, finance and contract management, research volunteer recruitment, study operations, investigational drug management and biospecimen management, to data management, biostatistics and final clinical study report development. The opening of its Phase 1 Clinical Trial Centre and Pharmacokinetics Laboratory in 2014 further strengthened its capabilities in running phase 1 and early phase clinical trials and added terrific momentum to translating basic scientific discovery into clinical stage development.

Global Connections and Standards

HKU-CTC is a globally-recognised organisation upholding its professional standard via continuous interaction and collaboration with research institutions and the biomedical industry worldwide. For instance, as one of the ten founding members of the International Clinical Trial Center Network (ICTN), HKU-CTC joins forces with leading clinical trial centres across five continents in promoting clinical research competencies and quality. With its international team proficient in English and Chinese languages, HKU-CTC can readily assist biomedical companies from different regions seeking to launch their products in the global market in a highly efficient manner.

Creating Research Synergies with the GBA

Moving forward, HKU-CTC is looking to optimise GBA opportunities and create synergies in the region. With a spin-off to be incorporated in Shenzhen, it aims to expand its footprint into the GBA by establishing a network of clinical trial institutions with a harmonised operational and quality standard and connected by an originally developed digital cloud platform for clinical trial institution management. This initiative is anticipated to create the most desirable ecosystem for clinical development in the GBA, enabling rapid translation of novel biomedical products from bench to bedside, and advancing healthcare for the public locally and worldwide.

HONG KONG GENOME INSTITUTE (HKGI) **CASE STUDY**

Pioneering Hong Kong's first large-scale genome project

Genomic medicine is the future of medicine. The widespread application of genomics in routine clinical care has a vast potential to transform healthcare services with more precise diagnosis, personalised treatment and disease prevention. In Hong Kong, through the work of Hong Kong Genome Institute (HKGI), the potential is well harnessed and translated into actions.

HKGI, established and wholly owned by the Hong Kong SAR Government, commenced full operations in 2021 with the vision **to avail genomic medicine to all for better health and well-being**. As its first step towards achieving this vision, HKGI successfully launched in July 2021 the Hong Kong Genome Project (HKGP), the city's first large-scale whole genome sequencing (WGS) initiative. The Project aims to conduct WGS for 40,000 – 50,000 genomes in five years, and focuses on three key areas that patients would benefit most from: undiagnosed diseases, hereditary cancers and cases related to genomics and precision health. Results of the sequencing analysis will be fed back to patients and their doctors to aid diagnoses and clinical services.



Advancing genomic medicine by setting precedents and impeccable standards

By launching HKGP as a catalyst project, HKGI has established the essential protocols and best practices for developing genomic medicine in Hong Kong. Among the precedents set include putting in place a rigorous mechanism for obtaining informed consent from patients, building state-of-the-art infrastructure and bioinformatics pipelines. To fuel the talent pool, HKGI also runs a wide spectrum of training and talent development programmes for health professionals, researchers and university students on various expert subjects such as

genetic counselling, genome curation and database management. All these efforts have prepared Hong Kong to build a genome database of the local population, which will not only address the under-representation of the Asian/Chinese genomes in the global scientific community, but also raise Hong Kong's profile as a regional hub for innovation and application of genomic medicine.



Inspiring genomic breakthroughs with collaborations and synergies

For HKGI, collaboration is the key to success. Locally, HKGI has cemented strong partnership with the Department of Health, Hospital Authority, and the medical schools of top universities, whose support has been instrumental to the smooth implementation of HKGP. HKGI has also kept its counterparts across the borders and around the world closely engaged for exchanges of insights and experience. HKGI has made impressive strides in less than two years of full operations. Going forward, HKGI will continue to be a key contributor and collaborator in the international arena, inspiring research, exploring the unknown and driving clinical applications of genomic medicine to create a better, healthier future for all.



"The training standards of healthcare workers and researchers are amongst the best in the world. With professionalism and an innovative mindset that is deeply rooted in their beliefs from university education to postgraduate field practice, they have an openness to adopt new technology-based solutions in solving medical challenges."



Prof. Chak-Sing Lau BBS, JP
Dean of Medicine,
The University of Hong Kong
Daniel C K Yu Professor in
Rheumatology and Clinical
Immunology
Chair Professor of Rheumatology
and Clinical Immunology

"Behind our superior healthcare services is an array of well-trained professors and passionate researchers, producing scientific discoveries and profound inventions can transform our future. Our discovery of the gene for Cystic Fibrosis is only the beginning of finding rationale therapies for the disease."



Prof. Lap-Chee Tsui
Founding President,
Hong Kong Academy
of Sciences

"Hong Kong is an international city with two well-known, top-ranking medical schools. Both have clinical research centres that provide one-stop solutions to local professors, private investigators, and sponsors to accelerate drug development and approval in the hope of finding new treatments for advanced diseases."



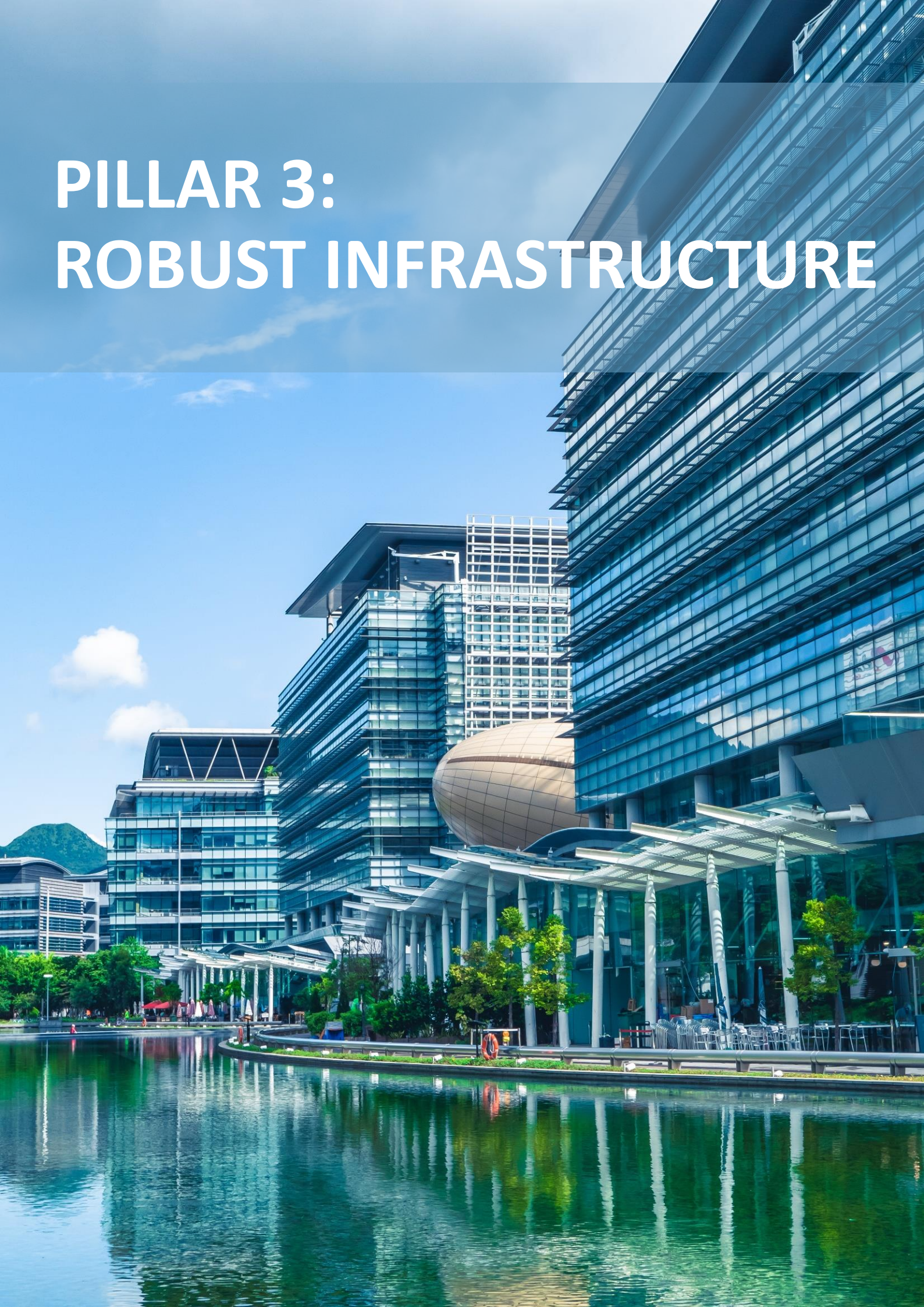
Prof. Francis Chan
Dean,
Faculty of Medicine,
The Chinese University of
Hong Kong

"The Hong Kong government strongly supports R&D with numerous infrastructure projects and extensive funding mechanisms encouraging professors to start companies based on their research to accelerate the pace of turning discoveries into reality and save lives."



Prof. Tony Mok, BBS
Chairman,
Department of Clinical Oncology
Faculty of Medicine,
The Chinese University of Hong
Kong

PILLAR 3: ROBUST INFRASTRUCTURE



KEY VALUE PROPOSITION AT A GLANCE



Research Facilities Incubators

Top-notch life sciences parks and incubators to provide state-of-the-art facilities and industry know-how



Medical Infrastructure

Government-backed infrastructure projects to link up scientific research and product launch

RESEARCH FACILITIES AND INCUBATORS

HKSTP

The Hong Kong Science & Technology Parks Corporation (HKSTP) provides visionary entrepreneurs and I&T companies R&D, innovation and go-to-market support. With over 330,000 m² of R&D offices and labs designed for innovation and entrepreneurship, it has bred a large community with more than 16,000 people (of which 12,000 are R&D practitioners) as of March 2023. HKSTP provides ample support to biotech companies through facilities and services⁶⁷ including:



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- **Biobank and Histopathology Services:** High-quality biospecimens from various research areas for innovative discoveries
- **Biomedical Informatics Platform:** Data storage platform to help drive research and discoveries
- **Biomedical Technology Support Centre:** A Life Science R&D centre where the latest tools and technical services can be found to support biomedical innovation
- **Chemical Co-Working Centre:** State-of-the-art wet laboratories for R&D activities
- **Medical Device Testing Lab:** A lab to provide testing and technical solution services to accelerate medical device developments
- **GLP Drug Safety Testing Center:** The first-of-its-kind Drug Safety Testing Center (DSC) to facilitate the translation of promising therapeutics and medical devices from the preclinical phase to the clinical stage
- **GMP Facilities:** PIC/S-certified Good Manufacturing Practice (GMP) facilities dedicated to Advanced Therapy Products (ATPs) development

HKSTP's Smart Manufacturing Facilities

Medical Accessory Resilience Supplies Manufacturing Centre (MARS)

The MARS Centre located at Tai Po INNOPARK is a site dedicated to producing medical accessory resilience supplies, medical equipment, materials and health products. With a gross floor area of 180,000 m²⁶⁸ and specialised features for the industry's space needs, the Centre is well-equipped for all stages of the production cycle. Since its establishment, the Centre has been driving forward the "Made in Hong Kong" vision with a high occupancy rate of 96%.⁶⁹

Advanced Manufacturing Centre (AMC)

Completed in 2022, the 1.1 million ft² AMC at Tseung Kwan O INNOPARK offers fully-equipped, scalable and serviced manufacturing spaces for technological innovation and high value-added, highly customised production. These advanced facilities are available for innovators of all sizes to test the translation of their ideas into products through low-volume, customised prototype production. This shortens the overall production cycle.

Precision Manufacturing Centre

The Precision Manufacturing Centre provides facilities for innovators in precise engineering and assembly, new materials manufacturing and environmentally friendly yarn production, tooling, and advanced indoor hydroponics.

Microelectronics Centre (MEC)

Set to launch in 2024, MEC will be dedicated to developing and manufacturing electronics and communications products including advanced semiconductors, smart sensors, electronics, and smart power devices. By leveraging collaboration spaces at MEC, researchers and engineers in Hong Kong can develop and use small, highly-integrated wearables that patients can implant or wear to better monitor, diagnose and treat a range of medical conditions.⁷⁰

"Hong Kong has an end-to-end life sciences ecosystem that provides quality platforms to link up university research and product development, meeting the needs of SMEs and large corporations across various stages of their business lifecycles. HKSTP supports over 220 biotech companies, more than four times the number from five years ago, by converting ground-breaking biomedical research into transformative commercial solutions. Coupled with the recent infrastructure projects supported by the Government such as MARS Centre and AMC, HKSTP is committed to accelerating innoufacturing and product commercialisation. With Hong Kong's status as Asia's largest and the world's second-largest biotech fundraising centre, the city is poised to become a global hub for advanced manufacturing and innovation in biotech entrepreneurship."



Ir Dr. H. L. Yiu
Chief Corporate
Development Officer,
Hong Kong Science
and Technology Parks

⁶⁸ MARS Centre, HKSTP, 2023

⁶⁹ Hong Kong Government, 2022

⁷⁰ Capture business opportunities in Hong Kong's thriving innovation and technology Ecosystem, InvestHK, Deloitte, 2022

Cyberport

Cyberport, a digital technology hub in Hong Kong, has been a key contributor to leveraging innovation & technology development to drive sustainable industry development. Cyberport gathers over 1,900 startups and technology companies, with the largest application technology cluster being Smart Living and Smart City. This cluster comprises over 760 enterprises, including over 100 focused on developing HealthTech and MedTech spanning a wide range of areas such as telemedicine, rehabilitation, healthcare, disease prevention, mental health, building healthy lifestyles and environment, on creating a high-quality and healthy living for the public.

“As Hong Kong’s digital technology hub and incubator for entrepreneurship, Cyberport has been fostering a vibrant and innovative community of over 1,900 technology companies and start-ups, many of which specialise in HealthTech, GeronTech, MedTech, robotics, IoT, and other aspects of health and life sciences to steer industry development. Cyberport continues to nurture I&T talents, and support entrepreneurs and innovators in varied stages of growth with comprehensive entrepreneurship programmes, extensive networks for commercialisation of innovations, venture capital investment, frontier technology and professional services, purpose-built campus with advanced technology infrastructure and facilities for application and demonstration of technology solutions to the public.”



Mr. Peter Yan, JP
CEO of Hong Kong
Cyberport

To support the development of high-quality HealthTech and MedTech startups, Cyberport continues to enhance and enrich the entrepreneurial ecosystem. Through a comprehensive suite of entrepreneurial programmes, Cyberport supports start-ups from start-up incubation, seed funding, go-to-market support and business expansion to investment matching to bolster start-ups on their varied entrepreneurial journeys. Cyberport’s diverse and extensive networks link up community members to highly sought-after business opportunities and venture capital, privileged access to technologies and professional services for corporate development and facilitation for overseas and GBA expansion, laying solid foundations for entrepreneurs to take their enterprises to the next level.

Cyberport's Purpose-built Infrastructure for Technology Innovation

With its state-of-the-art intelligent offices, technology infrastructure including 5G network and data service platform, retail complex, as well as a five-star hotel, Cyberport offers the necessary technology foundation and broadly diversified application scenarios for HealthTech and MedTech start-ups to innovate, co-create and enhance solutions through trial application.

Cyberlab

CyberLab is served as a showcasing platform for HealthTech innovations, including portable and self-administrable medical imaging for remote diagnostic screening and chronic disease monitoring and a hearing auxiliary device that uses acoustic technology to bypass the outer ear and transmit sound waves directly through the skull

Smart Living Concept Store

A self-service vending machine has been set up at the Smart Living Concept Store to dispense health products onsite around the clock

Smart Campus with start-ups' solutions

Disinfection: Cyberport has deployed disinfection robots developed by Cyberport start-ups to handle thorough disinfection

Hygiene: Cyberport has implemented a 'smart system' for campus washrooms, such as installation of sensors that provide updates to the Facility Management team on performing emergency repairs

Health: Smart fitness mirrors are installed at the campus gym, utilising AI technologies to analyse users' posture and movement to provide workout tips

Environment: Indoor Air Quality (IAQ) sensor technology was implemented to monitor the indoor air quality for which the Cyberport campus was awarded a certification of excellent class for indoor air quality

Smart Government Innovation Lab (Smart LAB)

Established by the Office of the Government Chief Information Officer (OGCIO) of HKSARG, Smart LAB connects government departments with innovative solutions from start-ups to enhance the quality and efficiency of public services. It showcases proof-of-concept technologies to inform government departments of the effectiveness and possibilities of different solutions

Upcoming Cyberport 5 expansion

The new building will provide office and co-working space, a data services platform, technology demonstration and experimentation labs, a multi-function hall, ancillary facilities, etc. Additional space will attract more quality HealthTech and MedTech start-ups to converge at Cyberport, adding vibrancy to the ecosystem



HSITP

The Hong Kong-Shenzhen Innovation and Technology Park (HSITP) is positioned as a key base for scientific research cooperation, as well as providing relevant higher education, cultural and creative industries, and other complementary facilities, to attract top-tier enterprises, R&D institutions and higher education institutes from Hong Kong, Mainland China and around the world, opening up unprecedented space and exciting opportunities for Innovation & Technology, covering Life Sciences development in Hong Kong. Some initiatives that the HSITP has planned include:



- **InnoLife Healthtech Hub:** A centralised Life Sciences hub is expected to be completed by the end of 2024. With sixteen laboratories, eight relevant state laboratories to focus on biomedicine, big data and artificial intelligence, and their applications in prevention, diagnosis, drug development and advanced treatment and rehabilitation⁷¹
- **Incubation Services:** A series of incubation services for Life Science start-ups, including office and laboratory space, equipment and technical support, and business development and mentoring services

InnoHK Research Clusters

Health@InnoHK and AIR@InnoHK are the first two research clusters under the InnoHK initiative. The clusters aim to promote collaboration between top-notch researchers worldwide to drive innovation in Hong Kong. Key research clusters include:

- **Health@InnoHK:** A research cluster that focuses on healthcare-related technologies, for instance, drug discovery, personalised medicine, molecular diagnostics, bioengineering, chemical biology, Chinese herbal medicine, etc.
- **AIR@InnoHK:** Adoption of disruptive AI and robotics technology to foster the development of the healthcare industry, including the Multi-Scale Robotics Centre and Laboratory of Data Discovery for Health



Hong Kong Traditional Chinese Medicine Phenome Research Centre

The Hong Kong Traditional Chinese Medicine Phenome Research Centre (HKPR) is a research institution established in Hong Kong by the Hong Kong Baptist University to promote R&D in Traditional Chinese Medicine (TCM). It focuses on using modern scientific technologies and methods to investigate the phenome of TCM and promote the understanding of the mechanisms of TCM therapies. Its core services include:

- TCM Product & Therapy Development: Study TCM's efficacy and safety and exploration of potential applications in TCM in various fields, including cancer treatment or neurodegenerative disorders
- TCM Research Translation: Partner with research institutions and industry partners to promote the translation of research findings into practical applications



MEDICAL INFRASTRUCTURE

Chinese Medicine Hospital Project

As a pioneer of Traditional Chinese Medicine higher education, the Hong Kong Baptist University (HKBU) was selected by the Government as the contractor for the service deed of Hong Kong's first Chinese Medicine hospital, which will be in Tseung Kwan O. Construction is expected to complete in 2025 with service to commence in the second quarter of the year. As Chinese Medicine tradition adheres to outpatient care, the project is revolutionising the Chinese Medicine industry by incorporating inpatient care and integrating Western and Chinese Medicine practices tailored to the patient.

Other Hospital Modernisation Projects

The CUHK Medical Centre (CUHKMC) envisions filling the middle ground. It is organised as a non-profit private hospital, which enables it to offer advanced medical care while keeping costs reasonable. CUHKMC is the city's first fully digitalised smart hospital. By using advanced information and communications technology (ICT), CUHKMC aims to improve patient outcomes and maintain high overall operational efficiency. It is committed to providing quality healthcare services to patients. One of the technologies that CUHKMC is deploying is 5G communication to speed up consultation, diagnosis, and treatment. The innovative use of 5G has paved the way for remote training to be possible. The Covid-19 pandemic created the need for remote and assessable training solutions for medical students, 5G connectivity makes CUHKMC the first hospital in Hong Kong for large-scale clinical training in real-time surgeries. 5G infrastructure can even support global medical conferences, strengthening Hong Kong's position in the international healthcare community.⁷²

Additionally, several initiatives are underway for traditional hospitals (e.g., Queen Elizabeth Hospital, Tin Shui Wai Hospital and Tseung Kwan O Hospital) to move towards a smart hospital management approach, with innovative and sustainable solutions deployed to provide more efficient healthcare, such as queue management systems to streamline the patient process. AI and robotics are also piloted in areas such as ward management and clinical diagnosis.

The Hospital Authority's 10-year Development Plan is a comprehensive strategy to enhance Hong Kong's healthcare infrastructure and improve patient care. The Plan is multi-dimensional, with initiatives ranging from building new hospitals, enhancing electronic health records, and developing new clinical services. Once complete, the plan will increase the capacity of public hospitals and clinics and improve the quality and efficiency of healthcare services by adopting new technologies to meet the growing demand for healthcare services. It will also enhance the patient experience by providing more patient-centred care and better access to healthcare services.



MULTI-SCALE MEDICAL ROBOTICS CENTER **CASE STUDY**

Frontier in Surgical Robotics

Funded by the HKSAR Government as part of its InnoHK initiative, the Multi-Scale Medical Robotics Center (MRC) is a laboratory dedicated to the research and production of novel surgical robotic technologies. It was established in April 2020, jointly by the Faculty of Medicine and the Faculty of Engineering at The Chinese University of Hong Kong (CUHK). The MRC supports the following three areas: endoluminal multi-scale robotic platforms for diagnostics and therapeutics, magnetic-guided endoluminal robotic platforms, and image-guided robotic interventions.

Accelerating Product Development with World-class Research

The InnoHK Centres are responsible for turning world-class research from places such as the MRC into new products. Under the branding of one of the leading medical schools in the world, the MRC has effectively combined research talent from CUHK and formed synergistic partnerships with distinguished global universities, including ETH Zurich, Imperial College London, Johns Hopkins University, and The University of Hong Kong. Furthermore, leveraging CUHK's reputation as one of the most highly cited research universities globally, research generated from MRC has secured an outstanding reputation and a high application rate. Hong Kong's strong engineering industry, deep funding pockets, and startup incubation platforms have made it possible for MRC to

position itself as a testbed of innovative devices. It boasts a tight connection with the industry, which supports clinicians, engineers, and researchers locally and globally in initiating collaborations, accelerating new IP generations, preclinical evaluations and commercialising surgical robots.⁷³

Becoming a Leading Medical Robotics Incubation Hub with MRC

The MRC is anticipated to advance Hong Kong's medical robotics field, where robotics significantly widens the reach of medical treatments for patients. Using the technologies pioneered by the MRC, endoscopic checks in the small intestine using magnetic fields could significantly shorten with higher rate of complete examination.⁷⁴ In the future, surgical robotics will become more common as they can reach areas of the body beyond today's devices.

Hong Kong's I&T Development Blueprint emphasising life and health technology has made innovation agendas of major research universities such as CUHK possible. In the long term, the MRC will serve as a medical robotics incubation hub to nurture medical technology startups, offer training in surgical robotic technologies, provide preclinical evaluation support services, and foster the commercialisation of novel medical robotics technologies.



The FIRST ROW FROM LEFT TO RIGHT:

1. Prof Ka Wai Kwok; 2. Prof Simon Yu; 3. Prof Li Zhang; 4. Prof Zheng Li; 5. Prof Philip Chiu; 6. Prof Francis Chan; 7. Prof Samuel Au; 8. Prof Yeung Yam; 9. Dr Ka Chun Lau; 10. Prof Simon Ng; 11. Prof Sheung Wai Law; 12. Prof Raymond Tong; 13. Prof Raymond Tang

THE SECOND ROW FROM LEFT TO RIGHT:

1. Prof Kelvin Chong; 2. Dr Danny Chan; 3. Prof Randolph Wong; 4. Prof Jason Chan; 5. Prof Patrick Yung; 6. Prof Thomas Leung; 7. Prof Michael Tong

⁷³ Multi-Scale Medical Robotics Center, 2023

⁷⁴ CUHK, Prof. Zhang Li, 2019

Hong Kong's First Digital Smart Hospital

The CUHK Medical Centre (CUHKMC) is Hong Kong's first non-profit private teaching hospital. Commencing in September 2021, it aims to bridge the gaps between the private and public healthcare systems in Hong Kong by providing high-quality healthcare services at affordable prices. All excess profits of the CUHKMC are devoted to the CUHK Faculty of Medicine for research and teaching. The hospital has over 500 beds, 28 operating rooms, and 56 consultation rooms.⁷⁵

Leveraging 5G Network for Smart Hospital Operations

In partnership with Hong Kong Telecom (HKT), Hong Kong's largest telecommunications company, CUHKMC, has provided stable and reliable 5G network services to become Hong Kong's first smart hospital. The hospital has also introduced countless innovations focusing on two main areas – fully digitalised electronic medical records and IoT-enabled management processes. With the Hospital Authority playing a leading role in centralising public hospital planning and strategic development, CUHKMC seamlessly integrated with the Government's

Electronic Health Record Sharing System, leveraging advanced information and communications technologies to provide real-time information to healthcare professionals, patients, and medical students. Through its electronic medical record system, CUHKMC plans to set up an integrated mobile system as a one-stop shop for patients to make appointments, register, handle payments, and check medical records. With technology, CUHKMC patients would no longer require multiple referrals from different doctors or go through a troublesome process on their road to recovery.

Driving Patient-Centricity through Healthtechs

With cutting-edge technologies and novel methods being first deployed in Hong Kong, the smart hospital will continue looking for a wide range of digital technologies and smart third-party logistics for pharmaceutical and medical consumables to enhance smart operations' safety, quality and efficiency. Being a role model for Hong Kong's future smart healthcare infrastructure, attracting numerous health tech solutions to improve our healthcare services.



PILLAR 4: EASE OF FUNDING ACCESS



KEY VALUE PROPOSITION AT A GLANCE



Capital Market

Revolutionary biotechnology listing regulations to complement the growth and expansion of life sciences companies



Private Funding

Deep pockets of early-stage capital to cater to the funding needs of early-stage startups



Public Funding

Various government-established funding and financial assistance programmes to provide long-term support for the life sciences industry

As Asia's financial hub, Hong Kong's mature financial system hosts one of the largest stock exchanges globally to support IPO activities. The wide range of L&HS-focused funding schemes available from public and private stakeholders further allows your business to gain access to funding support throughout your business' lifecycle.

"Hong Kong has the potential to build on its strengths to become a global biotech hub. With favourable policies and an established financing platform, the City can attract investments to develop innovative and life-saving therapies for patients around the world."



Ms. Simone Song
Senior Partner,
ORI Capital

CAPITAL MARKETS

Securing its position as Asia's most prominent biotech fundraising hub, the world's second-largest⁷⁶, Hong Kong possesses a robust IPO pipeline uplifted by an influx of homecoming overseas-listed Chinese stocks and new sectors in information technology and healthcare.

Chapter 18A Listing

In 2018, modifications to stock exchange regulations transformed Hong Kong into a premier exchange for biotech IPOs. Chapter 18A significantly opened up the capital market by allowing pre-revenue biotech companies to list on the main board of the Hong Kong Stock Exchange. Eligible companies must possess at least one core product beyond the concept phase, a minimum market value of HKD 1.5B, adequate working capital, and financial records of at least two fiscal years to mitigate the risk of listing premature biotech companies.⁷⁷

The Chapter 18A rule brought forward an unseen momentum in the Hong Kong stock market, tailoring to fast-growing L&HS startups and catering to the funding needs of Chinese healthcare companies. 2020 marked a year of significant change in trends for capital markets, where healthcare investments in emerging markets are now recognised as a segue for portfolio growth. As China continues to modernise its health infrastructure, it leads to increased consumption of the healthy population in one of the largest healthcare markets in the world. This piqued the interest of global investors, as China represents an attractive investment profile of defensive growth.⁷⁸

Chapter 18A has provided an avenue for pre-revenue biotech enterprises to gain access to global investors and capital. Over the past

three years, as of June 30, 2021, HKEX has welcomed 67 new biotech and healthcare listings, with a total fundraising of HK\$209 billion. Among these listings, 33 pre-revenue biotech firms have been listed under Chapter 18A, raising HK\$870 billion, representing 7% of the total IPO funds raised in Hong Kong during the same period.⁷⁹ Listed issuers under Chapter 18A are diversified, covering a wide range of areas, including Medical Services, such as hospitals and clinics, CXO such as Contract Research Organization (CRO) / Contract Development And Manufacturing Organization (CDMO)/ Contract Manufacturing Organization (CMO), Pharmaceuticals, Medical Device, and Digital Healthcare companies.

HKEX Collaboration with Local Incubator

To promote biotech investment in Hong Kong, HKEX signed a memorandum of understanding (MoU) with HKSTP in 2021 to drive biotech and fintech initiatives. With HKSTP being the home base of the largest R&D base in Hong Kong, this would allow HKEX to gain access to HKSTP's biotech industry experts, that will play a part in reviewing its biotech listing applications.⁸⁰ This partnership will strengthen Hong Kong's positioning as a global hub of biotech and new economy enterprises.

“With the commitment to serve as international healthcare innovation hub in Greater Bay Area, HK should leverage on its position in supporting healthcare companies and create the value-added ecosystem for the industry.”



Dr. Cyrus Chan
Associate,
Qiming Venture
Partners

⁷⁶ Annual Report, HKEX, 2021

⁷⁷ Chapter 18A Listings of Biotech Companies on the HKEX, China Business Law Journal, 2022

⁷⁸ HKEX in Biotech, HKEX, 2020

⁷⁹ HKEX in Biotech Issue No.6, HKEX, 2021

⁸⁰ Press Release, HKEX, 2021

PRIVATE FUNDING

Deep pockets of early-stage capital in Hong Kong complement the access to a strong ecosystem of L&HS start-ups. The stellar reputation of the financial and regulatory system and several high-growth companies has made Hong Kong increasingly captivating to robust investor appetites. Although private equity activities had experienced a decline globally during the pandemic, the healthcare deals remained robust, with USD 85.8B in deal value in 2020.⁸¹

Hong Kong has an established funding ecosystem for start-ups at various stages. In most cases, biotech start-ups are prone to

the "Valley of Death" stage, where they struggle to obtain financing to cover negative cash flow in their products' R&D and clinical trial stages. Hong Kong aims to position itself as Asia's pre-eminent fund management destination, with deals expected to increase further with carried interest tax reform. This includes allowing for a more diversified PE fund structure, tax concessions, and fund-domiciliation mechanisms. These reforms aim to lure ultra-high-net-worth capital back into Hong Kong, which would ramp up the capital available for start-ups in the "Valley of Death" stage.



PUBLIC FUNDING

Since 2018, the Government has unprecedentedly invested over HKD 150B to support I&T development, including long-term support for hardware development, research talent, clinical trials, and data applications for the L&HS industry. Some of the key initiatives are highlighted below:

Incentive Schemes

Startup Stage

Provider	Scheme	Incentive	Overview
Cyberport	Cyberport Creative Micro Fund (CCMF) ⁸²	HKD 100K per applicant	Supports and cultivates the entrepreneurial spirit of Hong Kong talents and start-ups in their pre-incubation stage through funding and guidance
	Cyberport Incubation Programme (CIP) ⁸³	Up to HKD 500K per incubated	Accelerates the growth of entrepreneurs and start-ups by providing them with essential resources and support
Hong Kong Science and Technology Park	Ideation Programme ⁸⁴	HKD 100K per company	Provides funding and coaching support for tech-focused entrepreneurs to turn their business ideas into reality
	Incu-Bio Programme ⁸⁵	Up to HKD 6M per company	Supports start-ups and technology companies in Biotech and Healthtech sectors, with funding support up to HK\$6 million, consisting of HK\$4 million financial subsidy and upfront grant, HK\$2 million funding to cover regulatory activities such as clinical trials

R&D Stage

Provider	Scheme	Incentive	Overview
Hong Kong Science and Technology Park	Clinical Translational Catalyst Fund (CTC) ⁸⁶	For Regulatory Affairs • Therapeutics: Up to HKD 4M to subsidise 50% of the expenditure for preclinical/non-clinical activities that support the regulatory submissions • Medical Devices: Up to HKD 2.5M for Class III medical devices, HKD 1M for de novo medical devices and HKD 500K for Class II medical devices, to subsidise 50% of the expenditure for preclinical/non-clinical activities that support the regulatory submissions For Clinical Trials • Therapeutics: Up to HKD 8M to subsidise 50% of expenditure for Phase I/II clinical trials • Medical Devices: Up to HKD 8M to subsidise 50% of expenditure for Class II/III devices	Supports biomedical companies to bring innovative, life-changing therapies and technologies to patients by subsidising regulatory-related affairs and clinical trials related therapeutics or medical solutions

⁸² Cyberport Creative Micro Fund (CCMF), Cyberport, 2023

⁸³ Cyberport Incubation Programme, Cyberport, 2023

⁸⁴ Ideation Programme, Hong Kong Science and Technology Park, 2023

⁸⁵ Incu-Bio Programme, Hong Kong Science and Technology Park, 2023

⁸⁶ Clinical Translational Catalyst (CTC), Hong Kong Science and Technology Park, 2023

Incentive Schemes

R&D Stage

Provider	Scheme	Incentive	Overview
Innovation and Technology Commission	Enterprise Support Scheme (ESS) ⁸⁷	Up to HKD 10M per approved project	Provides funding support for local companies to conduct in-house research and development (R&D) work to encourage the private sector to invest in R&D
	Partnership Research Programme (PRP) ⁸⁸	At least 50% of the total project cost	Provides matching funding support for R&D centres or designated local public research institutes for collaborative R&D projects
	Guangdong - Hong Kong Technology Cooperation Funding Scheme (TCFS) ⁸⁹	At least 10% and 50% of the total project cost for platform projects and collaborative projects, respectively	Provides funding support to enhance the level of collaboration on research and development (R&D) among universities, research institutes and technology enterprises in Hong Kong and Guangdong/Shenzhen
	Mainland-Hong Kong Joint Funding Scheme (MHKJFS) ⁹⁰	At least 10% and 50% of the total project cost for platform projects and collaborative projects, respectively	Provides funding to support and encourage research and development (R&D) collaboration among universities, research institutes and technology enterprises in Hong Kong and the Mainland as the lead applicant has to be an R&D Centre or a designated local public research institute
	Research and Development Cash Rebate Scheme (CRS) ⁹¹	Cash rebate equivalent to 40% of a local enterprise's eligible expenditure	Encourages more research and development (R&D) investment in the private sector and encourages local enterprises to establish a stronger partnership with designated local public research institutes
	Enhanced Tax Deduction for R&D Expenditures ⁹²	300% tax deduction on the first HKD 2M; 200% for the remaining	Allows for the reimbursement of expenses incurred by enterprises on qualifying research and development (R&D) activities to promote and encourage more enterprises to conduct R&D activities in Hong Kong

⁸⁷ Enterprise Support Scheme (ESS), Innovation and Technology Commission, 2015

⁸⁸ Partnership Research Programme (PRP), Innovation and Technology Commission, 2004

⁸⁹ Guangdong-Hong Kong Technology Cooperation Funding Scheme (TCFS), Innovation and Technology Commission, 2004

⁹⁰ Mainland-Hong Kong Joint Funding Scheme (MHKJFS), Innovation and Technology Commission, 2019

⁹¹ Research and Development Cash Rebate Scheme (CRS), Innovation and Technology Commission, 2010

⁹² Enhanced Tax Deduction for R&D, Innovation and Technology Commission, 2017

Incentive Schemes

Commercialisation Stage

Provider	Scheme	Incentive	Overview
Cyberport	Cyberport Accelerator Support Programme (CASP) ⁹³	Up to HKD 300K per company	Implements a structured programme to support the growth and development of start-ups and prepares Cyberport incubatees and alums for international markets and investors
	Cyberport Overseas /Mainland Market Development Support Scheme (MDSS) ⁹⁴	Up to HKD 200K per company	Provides financial subsidies for Cyberport incubatee, grantee or alumnus from CCMF and/or CIP to develop Mainland and Overseas market
Hong Kong Science and Technology Park	Acceleration Programme ⁹⁵	Up to HKD 4.8M per company	Helps Hong Kong-headquartered, growth-stage HKSTP tenants/incubatees with innovative technology, scalable business model or market-ready product to scale globally
	Elite Programme ⁹⁶	Up to HKD 21.5M per company	Provides funding and resource to help innovation and technology enterprises with strong growth potentials to expand their business outside Hong Kong further and eventually become a unicorn
Innovation and Technology Commission	Reindustrialisation Funding Scheme (RFS) ⁹⁷	One-third of the total approved project cost or HKD 15M per project, whichever is lower	Subsidises Hong Kong-based manufacturers to set up new smart production lines in Hong Kong

Funding Support

Provider	Scheme	Details	Overview
Cyberport	Cyberport Macro Fund (CMF) ⁹⁸	HKD 400M asset under management	Provides seed to Series A stage and beyond funding to Cyberport digital entrepreneurs to assist them in accelerating and promoting the development of the venture capital ecosystem
HKSTP	Venture Fund ⁹⁹	HKD 600M asset under management	Funds early-stage start-ups who are making a positive impact on the world
Innovation and Technology Commission	Innovation and Technology Venture Fund (ITVF) ¹⁰⁰	40% of the original total target investment amount sought by the investee company, or HK\$30 million, whichever is the lower	Attracts venture capital (VC) funds to co-invest in local series A-B, innovation and technology startups in Hong Kong

⁹³ Cyberport Accelerator Support Programme (CASP), Cyberport, 2023

⁹⁴ Overseas/Mainland Market Development Support Scheme (MDSS), Cyberport, 2023

⁹⁵ Acceleration Programme, Hong Kong Science and Technology Park, 2020

⁹⁶ Elite, Hong Kong Science and Technology Park, 2023

⁹⁷ Re-industrialisation Funding Scheme (RFS), Innovation and Technology Commission, 2020

⁹⁸ Cyberport Macro Fund (CMF), Cyberport, 2023

⁹⁹ Venture Fund, Hong Kong Science and Technology Park, 2023

¹⁰⁰ Innovation and Technology Venture Fund (ITVF), Innovation and Technology Commission, 2020

HKEX – a premier fundraising hub for companies of tomorrow

Hong Kong Exchanges and Clearing (HKEX) operates the seventh largest stock exchange in the world, with a market capitalisation of HK\$35.9 trillion and it is home to some of the most significant companies in the world, including Tencent, Alibaba, and Meituan. Hong Kong has established itself as a world-leading centre for new economy companies following successful listing reforms launched in 2018.

Listing reforms have changed the DNA of our markets

HKEX consulted widely with market participants on how to create a robust, attractive new listing regime and delivered three new listing chapters in April 2018: 18A for pre-revenue biotech companies, 8A for weighted-voting rights issuers, and 19C for secondary listings of overseas issuers.

These listing reforms changed the DNA of our markets. Since implementing the new rules, 86 companies covered by chapters 18A, 19C and 8A have listed, raising HK\$583.3 billion, accounting for 41.2% of total IPO funds raised and 20.2% of total market capitalisation.

The impact that the listing reforms have had on the market has been far-reaching: our markets have radically diversified, with many different companies in the healthcare and IT sectors listing in Hong Kong in the wake of the reforms.

The growing number of new economy companies listed in Hong Kong, in turn, has led to an increase in the number and diversity of new economy-related investment products, a bigger investor base and an expansion of sell-side analyst coverage, growing the new economy ecosystem in Hong Kong.

Moreover, Hong Kong's various refinancing methods and flexible systems enable new economy companies to access financing throughout their corporate lifecycle and drive their businesses over the longer term.

Our new listing regime will support the companies of tomorrow

Hong Kong has become a world leader in the funding, growth, nurturing and development of new economy companies. There is a strong desire to take the next step, go further to connect capital with opportunities and find ways to enhance the attractiveness of our markets.

In March 2023, HKEX launched the 18C Specialist Technology chapter to support high-tech companies and fund innovative ideas and growth.

The 18C regime is expected to continue HKEX's diversification journey, grow Hong Kong's new economy ecosystem, meet the funding needs of the companies of tomorrow, connect capital with opportunities and drive the innovations that will empower generations to come.

Global Investor in Life Sciences

Under the umbrella of the Nan Fung Group, Nan Fung Life Sciences ("NFLS") is a Hong Kong-based private investor across Hong Kong, Mainland China, and the US. Founded in 2017, it has invested in over 100 life sciences companies and funds and boasts an impressive end-to-end coverage of the life science ecosystem. Led by Mr. Vincent Cheung, CEO, it conducts direct investments via Pivotal bioVenture Partners US and Pivotal bioVenture Partners China.

Ease of Accessing Quality Startups for Investment

As a private investor, Nan Fung Life Sciences benefits from the openness of Hong Kong as an international financial centre, the ease of flow of cross-border capital, and the government's commitment to developing a thriving private equity ecosystem.

Hong Kong's favourable environment towards private equity and venture capitalists trickles into its life sciences sectors. Most startups with industry-disrupting technologies often cite that their largest challenge is seeking out investors to support business development. Hong Kong maintains deep financing pockets from private investors such as Nan Fung Life Sciences. Nan Fung Life Sciences keeps a keen eye on promising startups with innovative solutions within the therapeutics, medical devices, and diagnostics space. It benefits from the ease of exiting its portfolio by seeking an IPO on the Hong Kong stock exchange.

"Do Well by Doing Good" to Cultivate Talents

Guided by the "Do well by doing good" principle, NFLS acknowledges the increasing need for corporate talent within the academic and financing space. Hence, it gives back to the community as a full backer of the Hong Kong Life Sciences Society (HKLSS), which attracts and retains talent in Hong Kong's life science and biotechnology sectors through initiatives such as summer internships, mentorships, student scholarships, science communications, seminars, and workshops for students looking to launch their career in this field. This initiative is essential in continuously fostering growth by cultivating the next generation of life science professionals.



PILLAR 5: COMPETITIVE BUSINESS ENVIRONMENT

KEY VALUE PROPOSITION AT A GLANCE



Profound Legal System

A business-friendly legal system that offers efficiency in setting up businesses



Multicultural Talents

A highly liveable city with a diverse, multilingual workforce to facilitate international business operations



Competitive Tax Regime & Financial Advisory Support

A robust tax framework coupled with high-quality financial advisory services to achieve operation efficiency



Strategic Location

Geographical advantage to serve as a top choice for setting up regional headquarters

“Hong Kong is a fast-paced environment whereby the speed of response is critical, from ideation to commercialisation. Further streamlining innovation access to Greater Bay Area to become an effective gateway to the Mainland China market, Hong Kong can make its environment more attractive for research & development, able to lure more biotech companies and ensure innovations become available to benefit more people faster.”



Dr. Diana Liu
General Manager,
Roche Hong Kong
Limited

“Being an international city, we have lots of experience serving different countries and cities in the world, allowing our scientists to develop the know-how and inherit a culture that prioritises IP protection from prototyping to manufacturing. Our local manufacturers and distributors also display this quality from their strong respect for patent protection, recognising the importance of idea originality and exclusivity.”



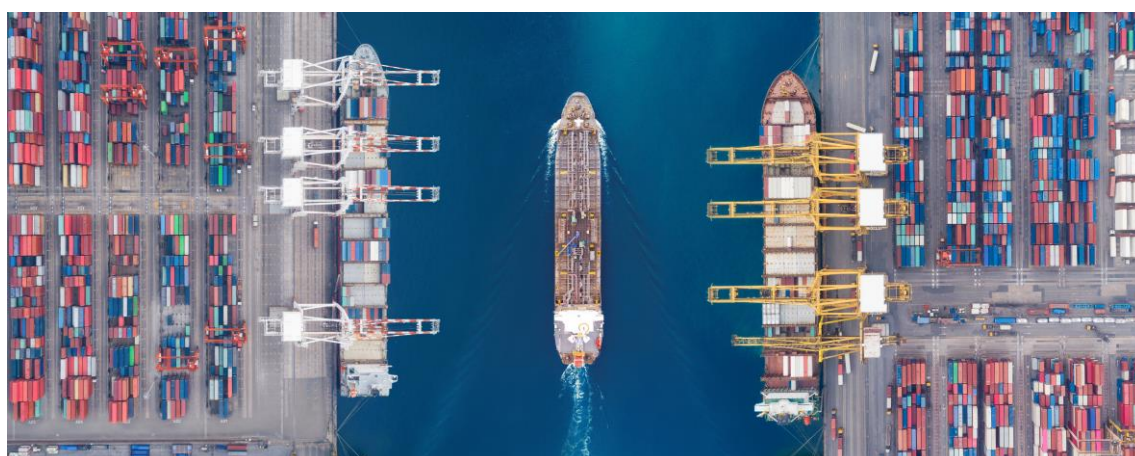
Dr. Lydia Leung
Chairman,
Hong Kong Medical and
Healthcare Device
Industries Association

THE WORLD'S FREEST ECONOMY – HONG KONG

Ranked number one as the world's freest economy by the Fraser Institute in 2022, Hong Kong is one of the best places to start a business in the world. By leveraging Hong Kong's geographical location, international talent, sound and mature legal system, and business-friendly tax & financial support services, investors can benefit from Hong Kong's business environment and easily open doors to new markets.

Hong Kong Rankings in Global Competitiveness¹⁰¹

Area	Ranking
Overall Ranking	5
Government Efficiency	2
Business Efficiency	7
Infrastructure	14
Economic Performance	15



STRATEGIC LOCATION

Located in the heart of the Asia Pacific, Hong Kong's proximity to Mainland China opens countless opportunities as a gateway between China and the rest of the world. Its favourable business environment has drawn 199 Life Sciences-related companies to establish their headquarters in Hong Kong¹⁰². Over the years, the Hong Kong government has leveraged this geographical advantage to open itself to the rest of the world to become a global L&HS hub, creating Asia's premier ecosystem through various regional economic initiatives.

¹⁰¹ World Competitiveness Ranking, IMD, 2022

¹⁰² Report on 2022 Annual Survey of Companies in Hong Kong with Parent Companies Located outside Hong Kong, Census and Statistics Department of Hong Kong Special Administrative Region, 2022

MULTICULTURAL TALENTS

Hong Kong is a city where East meets West, where deep-rooted Chinese culture exists alongside foreign cultures. Hong Kong has long adopted its 'trilingual and biliterate' language policy, where the language for businesses, healthcare institutions, and medical schools are all conducted in English, Chinese or Mandarin. With relatively low barriers to migration and bilingualism, Hong Kong has one of the highest ex-pat

percentages in the world, with over 700,000 expats¹⁰³ in a population of 7.6 million people¹⁰⁴. At the same time, Hong Kong has excellent opportunities in L&HS, all of which have drawn in overseas talent, such as researchers, professors, and entrepreneurs.

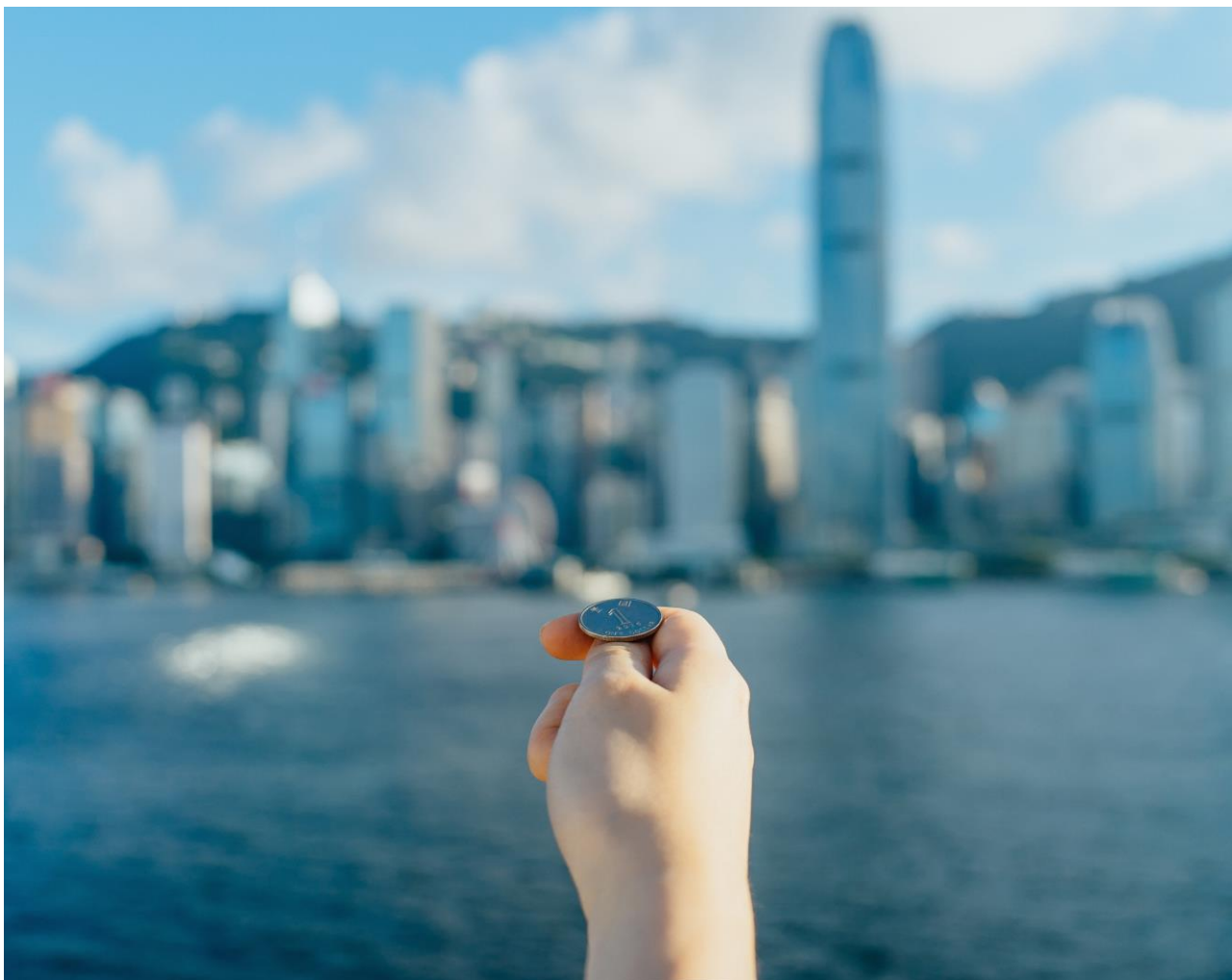
PROFOUND LEGAL SYSTEM

A solid legal system is as important as scientific discovery. Hong Kong is recognised for having a pro-business legal system with free market principles that allow 100% ownership for foreign investors. Coupled with strong protection from discovery to commercialisation, covering clinical data security, IP protection and trading, as well as M&A and commercial transactions, Hong Kong is seen as the ideal place with a straightforward and cost-effective process for local and overseas companies to set up their businesses here.

For the L&HS industry, intellectual property is the lifeblood of a business's ability to maintain a competitive foothold. Hong Kong has a robust IP law that allows companies to seek protection through a standard patent (up to 20 years) or a short-term patent (up

to 8 years) under the Intellectual Property Department. The 2022 Policy Address called for strengthening IP protection by transforming Hong Kong into a regional IP trading centre. Collaboration between Hong Kong and the GBA is protected by cross-border IP protection, attracting talent to explore business prospects freely. For instance, InnoHK research clusters have thrived under Hong Kong's strong IP protection, attracting over 30 top global universities and research institutes¹⁰⁵. Professor Dennis Lo, Hong Kong's inventor for non-invasive prenatal testing, was named "Top 20 Translational Researchers" for five consecutive years.¹⁰⁶





COMPETITIVE TAX REGIME & FINANCIAL ADVISORY SUPPORT

L&HS companies will find that Hong Kong's professional financial services are the world's most competitive and comprehensive. Hong Kong is seen as one of the most tax-friendly economies in the world with straight-forward taxation requirements. Profits tax is capped at a low rate of 16.5% to attract foreign investment. To encourage companies to conduct R&D locally, Hong Kong launched the Hong Kong R&D Expenditure Initiative, which aims to encourage local scientific discoveries. Under this initiative, eligible companies can enjoy a tax deduction of 300% for their first HKD 2M expenditure towards R&D, and 200% for the remaining

expenditure, including hiring R&D personnel and purchasing or renting facilities for R&D and expenses related to patent applications.¹⁰⁷ As one of the world's most services-oriented economies, with services accounting for more than 90% of its GDP, Hong Kong also offers quality advisory services spanning across accounting, book-keeping, auditing, and tax consulting services regulated under international standards by local and global regulators.

¹⁰³ 4 Reasons why Hong Kong isn't worried about an 'expat exodus', Fortune, 2022

¹⁰⁴ Hong Kong Population, Worldometer, 2023

¹⁰⁵ Business of IP Asia Forum, John Lee, 2022

¹⁰⁶ Press Release, CUHK, 2021

¹⁰⁷ Enhanced Tax Deduction for R&D Expenditures, InvestHK, 2020

Generative AI-Driven Drug Disruptor

Insilico Medicine (Insilico) is an industry pioneer in leveraging rapidly evolving, proprietary Generative AI platforms to accelerate drug discovery and development across biology, chemistry, and clinical development. Founded in 2014, Insilico is among the first players in AI-driven drug discovery in Hong Kong and the world.¹⁰⁸

Hong Kong as an Ideal Choice for Global Headquarters

Leveraging strong Hong Kong's location advantage of being the centre between China and overseas, Insilico moved its headquarters to Hong Kong in 2019 and later became a leading international AI drug discovery company. Backed by the successes of several life sciences startups headquartered in Hong Kong and which have since expanded overseas, it has developed a reputation as the ideal market for startups to nurture their business and launch overseas.

Dr. Frank Pun, Head of the Insilico Hong Kong office, believes that Hong Kong has the unique advantage of geographic location possessing the same time zone as China, giving it better access to Mainland China's CROs and market.

"Hong Kong is one of the best places on the planet to live, conduct cutting-edge research, and do business," said Alex Zhavoronkov, PhD, Founder and CEO of Insilico Medicine.

Leveraging Hong Kong's Strategic Location for International Expansion

Leveraging Hong Kong's easy access to overseas markets, Insilico aims to position itself as a global clinical-stage AI drug discovery company with offices in Asia, North America, and the Middle East. Using Hong Kong's platform to launch its business globally, Insilico delivers breakthrough solutions for cancer, immunity, and central nervous system diseases while headquartered in Hong Kong. As an example of its global ambition, in December 2022, Insilico launched the sixth generation Intelligent Robotics Lab in Suzhou BioBAY Industrial Park to further accelerate its AI-driven drug discovery. The lab runs autonomously by its AI system, with autonomous guided vehicles running experiments of cell culture, high throughput screening, next-generation sequencing, and cell imaging. The data generated by the robots will feed directly into the AI platforms, improving the system's target hypotheses and ability to validate those hypotheses.



¹⁰⁸ The Next Step in AI Drug Discovery: Robots, Insilico, 2022

Up-and-coming Preclinical CRO

Headquartered in Hong Kong, ZSHK Laboratories Limited is a one-stop contract research organisation (CRO) with preclinical research and evaluation services for biomedical and medical devices. ZSHK is headquartered in HKSTP in Hong Kong and has expanded to major technology parks in Mainland China. It provides services including pharmacologic and pharmacodynamic research, pharmacokinetics research and safety evaluation research.

Preclinical research evaluation institutions are essential in transforming basic research into results. While China and US have become mature markets for CRO, Hong Kong is still at a pre-mature stage and in great need of CRO services on early-stage drug effectiveness and safety testing for pharmaceutical startups and university professors. ZSHK has successfully captured this trend and since established the breeding of experimental dogs and non-human primates in Hunan and Guangxi.

Coordinating Point for China Operations

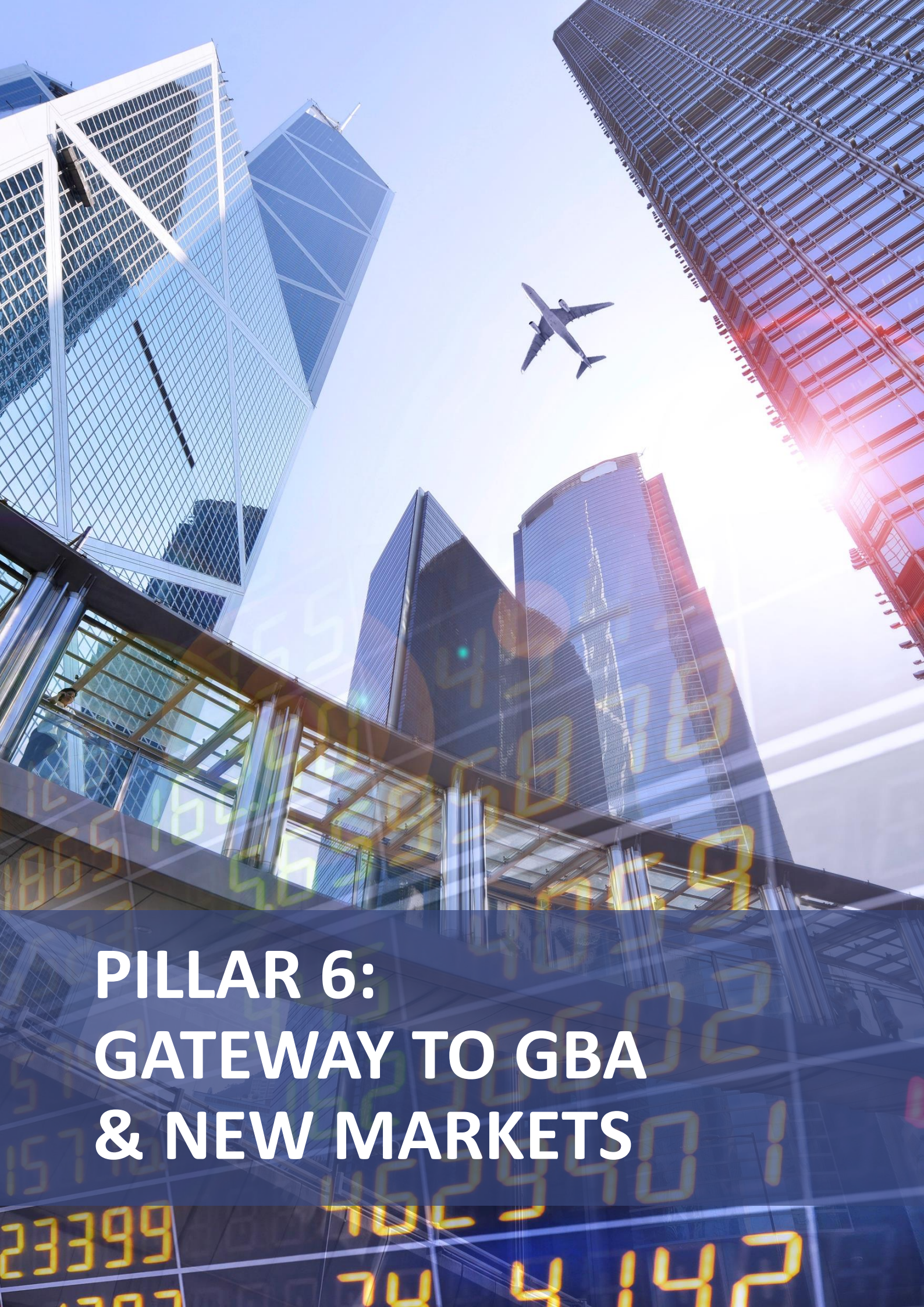
Being strategically located between Mainland China and the rest of the world, Hong Kong is truly globalised for ZSHK to develop biomedical innovations and bring them into the Chinese market. Dr. Ming Li, the CEO of ZSHK, explained that the rationale for setting up ZSHK in Hong Kong stems from its profound legal system, competitive business taxation, and secure IP protection. Being a city with three spoken languages, ZSHK finds Hong Kong the ideal city to conduct business.

It can simultaneously operate between Hong Kong and Mainland China while bringing investors and other connections from abroad. Leveraging on Hong Kong's unparalleled network, ZSHK Laboratories has completed two financing rounds totalling nearly 200 million RMB, with Qiming Venture Partners and AZ-CICC Healthcare Fund, two famous venture capitalists, leading the investment and Jishi Capital participating in both rounds as a follow-on investor.

Hong Kong as a Launchpad to the Rest of the World

ZSHK has capitalised on multiple opportunities provided by Hong Kong to expand its business outward. In November 2022, ZSHK was invited to the Second Asia Summit on Global Health, establishing its presence in the APAC region. It provided the platform to discuss collaboration opportunities with the global healthcare industry alongside China's pharmaceutical revolution. In December 2022, ZSHK debuted in an international biotech convention in Hong Kong, an international convention organised by HKBIO to introduce ground-breaking biotech innovations globally. This event has launched ZSHK beyond Hong Kong, allowing it to enter the global biotechnology stage. In the future, we can anticipate ZSHK's presence to strengthen globally, given the abundance of opportunities to collaborate with global players worldwide.



A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are arranged in a way that they converge towards the top of the frame. In the center, an airplane is seen flying upwards. The sky is a pale blue. Overlaid on the bottom half of the image is a semi-transparent dark blue rectangle containing white text. Additionally, there is a faint, large-scale overlay of yellow and green digital numbers, resembling a stock market ticker, across the entire image.

PILLAR 6: GATEWAY TO GBA & NEW MARKETS

KEY VALUE PROPOSITION AT A GLANCE



Medical Collaboration

Collaborative policies allow the sharing of research, drugs and medical devices across the Hong Kong and Mainland China border



Shared Talent Pool

Strong Government support provides a global talent pool



Connected Network

Competitive free trade agreements offer tax and related incentives to facilitate market expansion into Mainland China or new overseas markets



MICE Support

Sophisticated infrastructure and facilities allow the city to serve as a super-connector to foster business exchange with global partners

“The future of healthcare lies in the design of integrated treatment plans that are customised to the needs of patients, regardless of Western or Chinese medicine. With a good understanding of Chinese and Western medical principles, our Chinese doctors have great potential to advance our scientific innovations globally and open new opportunities for Hong Kong.”



Prof. Aiping Lyu
Vice-President
(Research and Development),
Hong Kong Baptist University

“Hong Kong and the Greater Bay Area should always be treated as one unified market. As the most international city in China, Hong Kong is well-positioned as a gateway to bring in foreign investment to serve the broad appetite of the China market and support Mainland R&D and start-ups to expand globally.”



Mr. Raj Bhatti
President,
The Hong Kong Association
of the Pharmaceutical Industry
VP & General Manager,
GSK Hong Kong & Macau

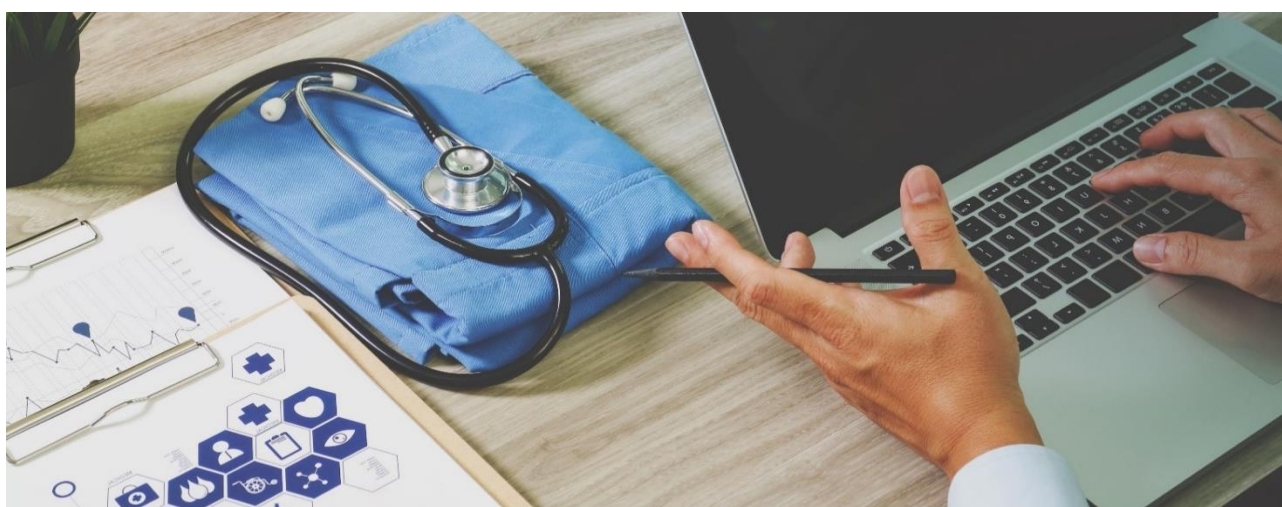
Under the umbrella of the "One Country, Two Systems" and the GBA zone, collaborative policies from governments allow Hong Kong to be the bridge for Mainland Chinese companies looking to expand globally and for overseas companies to tap into opportunities from the second-largest economy in the world.

MEDICAL COLLABORATION

GBA governments developed policies to foster inter-city cooperation, such as the recently approved cross-border fast-track customs-clearance measures to increase the flow of scientific research samples, lab reagents, and other resources¹⁰⁹. To encourage further integration of the medical and pharmaceutical sectors in the GBA, the Food and Health Bureau has approved a new measure for nine Mainland cities in the GBA to use Hong Kong-registered drugs and medical devices. In support of this, the Agriculture, Fisheries, and Conservation Department and Hong Kong, Customs and Excise Department have well-established protocols to process and clear samples quickly and efficiently.

SHARED TALENT POOL

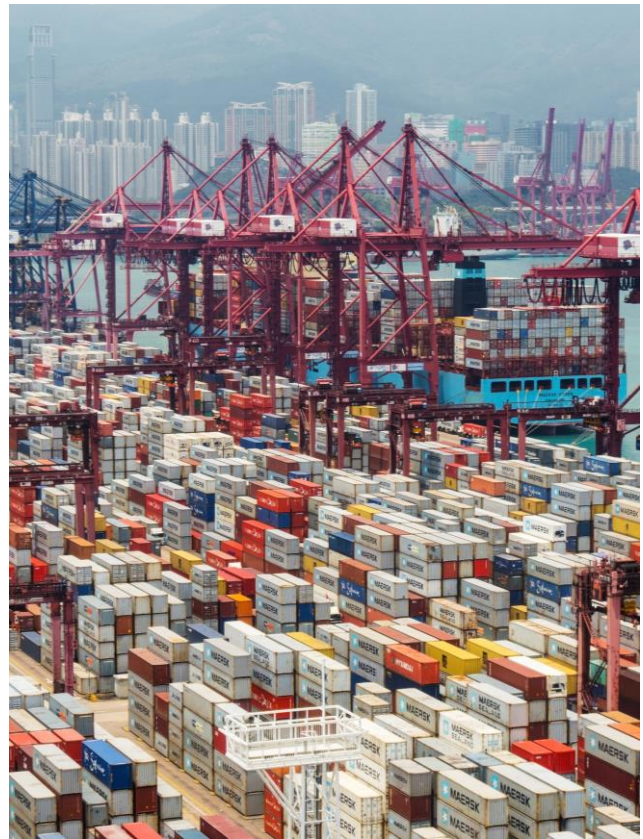
The Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) is a strategic partnership that allows registered healthcare professionals with Hong Kong-based legal qualifications and certifications for short-term employment in Mainland China. On October 29, 2021, the Medical Registration Ordinance allowed overseas doctors with locally recognised medical qualifications to apply for special registration to practice in Hong Kong's public healthcare institutions to meet the increasing demand for public healthcare services, particularly for the elderly.



¹⁰⁹ Hong Kong Leading the Way in Greater Bay Area Biomedical Services Cooperation, HKTDC, 2019

CONNECTED NETWORK

Hong Kong has signed several free trade agreements, such as China¹¹⁰, ASEAN¹¹¹, Australia¹¹² and other countries worldwide to enhance economic ties, trade and investment. With reduced trade barriers and tariffs, Chinese companies have the potential to improve their competitiveness by facilitating the exchange of products, technologies, ideas, and expertise with other countries. For instance, Guangdong will take steps to operate in the pharmaceutical manufacturing space. At the same time, Hong Kong will play a vital role in establishing itself as a re-export centre for medical and healthcare equipment. It will help enterprises in the GBA to expand overseas, facilitate cooperation with foreign partners, and assist enterprises in moving up the value chain.



MICE SUPPORT

The Hong Kong government strongly supports meetings, incentives, conventions and exhibitions (MICE) to facilitate Hong Kong's role as a super-connector, creating business opportunities for investors. Recently, the Hong Kong Tourism Board allocated funding of HKD 200M to enhance its facilities and related effort in hosting international meetings¹¹³. Selected MICE events related to L&HS include the Asia Summit on Global Health, Hong Kong International Medical and Healthcare Fair, BIOHK, and so on, organised by marketing bodies of Hong Kong, such as Invest Hong Kong, Hong Kong Trade Development Council and other industry incubators and associations.

¹¹⁰ Mainland and Hong Kong Closer Economic Partnership Arrangement, Trade and Industry Department of Hong Kong Special Administrative Region, 2004

¹¹¹ Free Trade Agreement between Hong Kong, China and the Association of Southeast Asian Nations, Trade and Industry Department of Hong Kong Special Administrative Region, 2023

¹¹² Australia-Hong Kong Free Trade Agreement and associated Investment Agreement, Department of Foreign Affairs and Trade of Australian Government, 2022

¹¹³ 2023-2024 Budget Speech, Hong Kong Government, 2023

THE UNIVERSITY OF HONG KONG-SHENZHEN

HOSPITAL **CASE STUDY**

Cross-Border Hospital in the Heart of GBA

Opened in July 2012, the University of Hong Kong-Shenzhen Hospital (HKU-SZH) is the largest public teaching hospital in Futian District, Guangdong, China, built by the Shenzhen municipal government. It occupies a total floor area of 367,000 square meters with 2000 beds. HKU-SZH is an international comprehensive hospital located in the Greater Bay Area, providing top-notch medical services to cross-border citizens in the region and Hong Kong. It is not only a high-standard hospital in Guangdong Province but is also recognised as one of the 14 pilot hospitals for high-quality development in the country.¹¹⁴

Support From Across the Border

Most notably, Hong Kong's close ties with the GBA have made this hospital collaboration possible. The close fit of culture and language, geographical proximity to China, and easy transfer of talents across the border have made cross-border knowledge transfer possible. Both Hong Kong and Shenzhen possess excellent features in their healthcare systems and hospital management models. Hence, the HKU-SZH is paving the way for both sides' development to foster healthcare quality. This is achieved by establishing a new public hospital management model referenced from HKU's internationally renowned clinical specialities to establish Centres of Excellence in Cardiovascular Diseases, Oncology, Orthopedics, Reproductive Medicine and Prenatal Diagnosis.

A Teaching Model for Fostering Medical and Innovative Research Excellence Internationally

The HKU-SZH project has been developed as a pilot hospital for cross-border collaboration and implementation of a Hong Kong-based hospital management system. In the future, this would be used as a benchmark to improve modern hospital management of public hospitals.¹¹⁵ Another important role of HKU-SZH is to serve as a unique translational and clinical research hub in GBA, combining international standards with rich research resources from Mainland China. With both the GBA and Hong Kong serving as a launchpad into the overseas market, it is anticipated that the HKU-SZH is positioned to become a world-leading teaching hospital and a model for grooming the next generation of medical talents in China and Belt & Road countries.

¹¹⁴ HKUSZH 10th Anniversary, The University of Hong Kong-Shenzhen Hospital, 2022

¹¹⁵ Introduction, The University of Hong Kong-Shenzhen Hospital, 2023

Comprehensive Healthcare Provider for Specialist Services

Founded in 1990, UMP Healthcare Holdings is a leading medical and healthcare platform in Hong Kong and Macau. As a result of Mainland China's state policy, UMP established UMP Healthcare China in 2015 and launched joint ventures with local community health service partners and trained family doctors in major Chinese cities. By 2022, UMP had served 1.35 million patients and has an impressive network of over 1000 self-owned or affiliated medical service centres across Hong Kong, Macau, and major cities within the GBA. Following UMP's group restructuring in 2021, UMP Healthcare China changed its name to The GBA Healthcare Group. UMP Healthcare Holdings continues to maintain a stake and board presence in The GBA Healthcare Group.

Establishing Strategic Partnerships with Mainland China

In line with "Healthy China 2030", favourable policies and goals, The GBA Healthcare Group has fostered strategic connections with various regional governments by training and accrediting over 2,000 general practitioners and nurses since 2018, as well as building over 120 private-public-partnership clinics spread across the Greater Bay Area. Most recently, The GBA Healthcare Group has entered into a strategic partnership with Shenzhen Qianhai Shekou Free Trade Zone Hospital to advance the amalgamation of medical resources between Hong Kong and Mainland China¹¹⁶. The collaboration between Hong Kong and Mainland Chinese healthcare providers has been actively pushed forward. Chinese party committee members of the Hospital are eager to establish an international healthcare system in the GBA that interconnects with Hong Kong and Macau.

Leveraging Hong Kong's Conducive Ecosystem for Solving Pressing Healthcare Issues

Continuing its active pursuit of strategic partnership opportunities, UMP Healthcare Holdings is looking to incorporate a personalised AI model. It partners with HKUST to develop an AI-powered nurse to improve personalised care for different age groups and monitor patients' physical conditions. This solution is set to address Hong Kong and the GBA's ageing population, where chronic diseases are anticipated to surge. Also, taking advantage of the abundance of technology firms in Hong Kong's tight-knit ecosystem, it established the "UMP Healthcare Innov Centre" to drive MedTech and HealthTech, serve as a platform to connect various parties (healthcare groups, insurance companies, investors, medical and healthcare product providers, etc) to make the health ecosystem more vigorous.

"Hong Kong offers unique advantages in having crucial elements for biotech development in one location. These include top-notch academic research and talent pools, world-class R&D infrastructure, financial strength, robust intellectual property protection, high-quality clinical trial data, and strong government commitments. With the launch of initiatives, such as the Northern Metropolis Development Strategy, R&D infrastructure expansion, and facilitation measures with the Greater Bay Area (GBA), Hong Kong continues to strengthen its position in connecting technology companies across the GBA, China, and overseas, offering tremendous business opportunities."



Mr. Andy Wong
Head of Innovation and
Technology, Invest Hong Kong

"Harnessing innovation and collaboration, Hong Kong is poised to establish itself as a preeminent global leader in the Life and Health Science sector. With its strategic location, world-class universities, cutting-edge research facilities, and a robust industry ecosystem, Hong Kong has consistently generated a wealth of research output and spearheaded transformative technological advancements within the sector. Let us unite our efforts to unlock the full potential of this vibrant city and pave the way for a healthier, more prosperous future for all!"



Mr. Edward Au
Southern Region Managing
Partner, Deloitte China

"Hong Kong has made significant progress in advancing life science, healthcare and biotech developments in recent years. With innovation and technology at the heart of the Government's policy priorities, Hong Kong plays a unique role in the Greater Bay Area to drive collaborative global efforts in science, research, data and digital technologies in the post-COVID era. We invite researchers, innovators and investors to take advantage of the abundant scientific research resources, commercialisation capability and vibrant ecosystem as we trailblaze the next chapter."



Mr. Falcon Chan
Partner,
Strategy, Analytics and M&A,
Deloitte China

PATH FORWARD



HONG KONG ENTRY ROADMAP

Step 1: Getting Started

A core team that supports a start-up throughout its journey is essential. Businesses should have a good mix of entrepreneurs with execution abilities and academics with deep L&HS knowledge. Once the team is established, it is key to conduct market research to gather information on potential customers and existing businesses to find the competitive edge for your business.

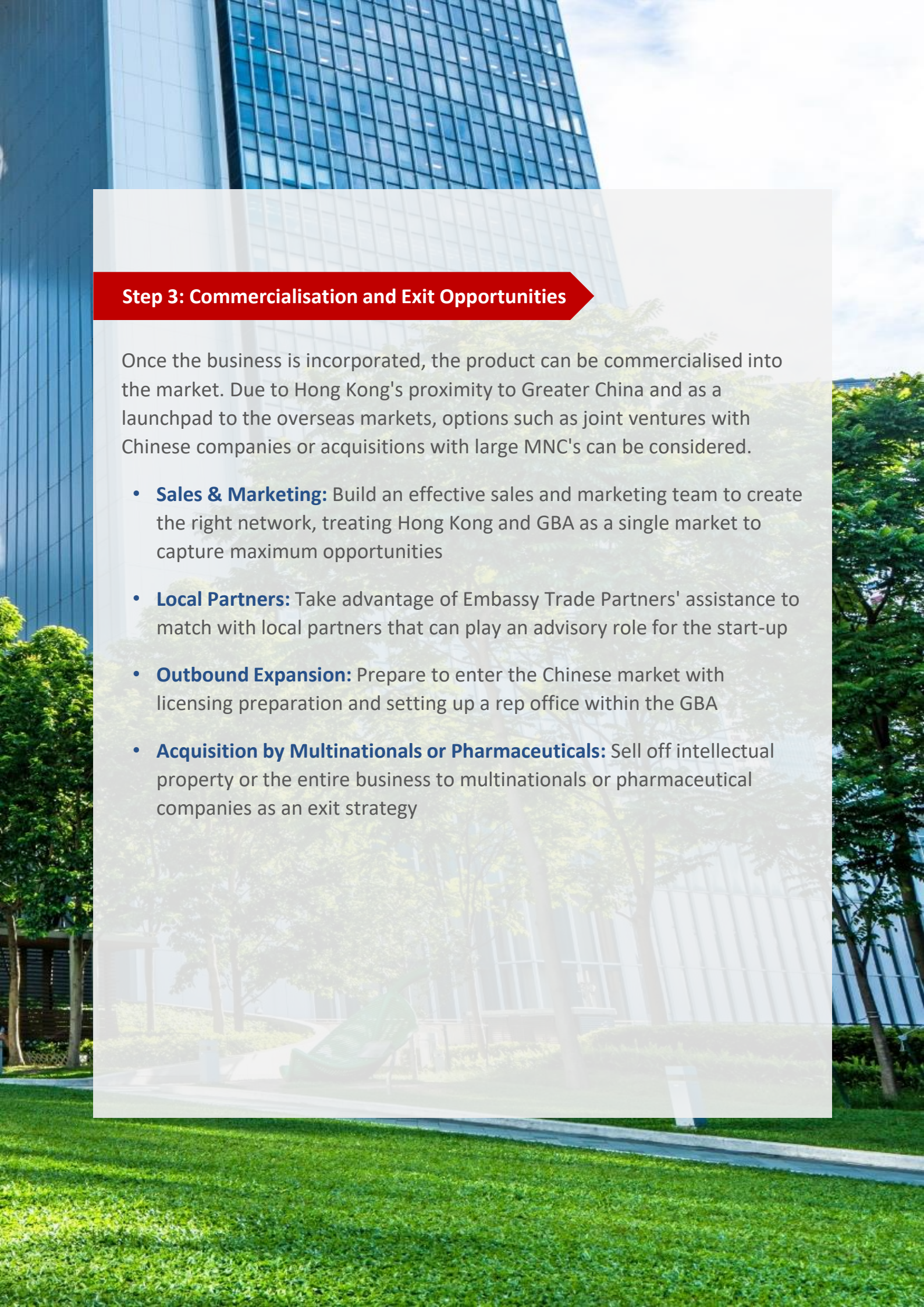
- **Experienced Team:** Ensuring start-ups have a team of individuals that have prior experience in the academic space with scientific validation for the research
- **Team Management:** Build a management team with entrepreneurial skills, clear strategy, and corporate vision
- **Market Intelligence:** Draw the business roadmap by identifying the addressable market size, headquarters location, where to expand future operations, and international approval or registrations for the prototype
- **Business Landing:** Connect with Hong Kong marketing bodies such as Invest Hong Kong or Hong Kong Trade Development Council that provide early support such as business matching with different stakeholder groups to bridge trust between the industry and the startup
- **Incubation Support:** Incubate in HKSTP, Cyberport, or other incubators that provide a wide variety of incubation programmes from ideation to commercialisation



Step 2: R&D and Pre-Launch Preparations

To get the business off the ground, start-ups can work with incubators and academia to develop cutting-edge products that will capture the attention of investors to maximise the chances of getting seed funding.

- **Testing & Development:** Conduct clinical trials at HKU and CUHK Clinical Trial Centres, or leverage HKIB ATP GMP Centre and HKUMed Laboratory of Cellular Therapeutics facilities for process development of biopharmaceutical products and to ensure the product meets the requirements of international regulatory agencies
- **Funding Support:** Reach out to private investors such as angel investors or venture capitalists, or register for a pre-revenue IPO under Chapter 18A with HKEX to go public
- **Patent Protection:** File for patent protection within the three patent offices in Hong Kong (National Intellectual Property Administration, PRC (CNIPA), United Kingdom Intellectual Property Office (UKIPO), or European Patent Office (EPO) designating the United Kingdom)



Step 3: Commercialisation and Exit Opportunities

Once the business is incorporated, the product can be commercialised into the market. Due to Hong Kong's proximity to Greater China and as a launchpad to the overseas markets, options such as joint ventures with Chinese companies or acquisitions with large MNC's can be considered.

- **Sales & Marketing:** Build an effective sales and marketing team to create the right network, treating Hong Kong and GBA as a single market to capture maximum opportunities
- **Local Partners:** Take advantage of Embassy Trade Partners' assistance to match with local partners that can play an advisory role for the start-up
- **Outbound Expansion:** Prepare to enter the Chinese market with licensing preparation and setting up a rep office within the GBA
- **Acquisition by Multinationals or Pharmaceuticals:** Sell off intellectual property or the entire business to multinationals or pharmaceutical companies as an exit strategy

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- Support and assistance with business licences, visa applications, trademark registration, IP and trade regulations
- Marketing and public relations services during the launch and expansion of your company
- Advice on living and working in Hong Kong — housing, healthcare, schooling and networking

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