



香港中文大學  
The Chinese University of Hong Kong

THE  
CHINESE  
UNIVERSITY OF  
HONG  
KONG



# FOREWORD



Welcome to The Chinese University of Hong Kong, a comprehensive research university established in 1963 that has become an internationally renowned centre of excellence in education and research.

CUHK is a multicultural campus that attracts students from Hong Kong and from all around the world. Our holistic whole-person approach to education prepares students for rewarding careers and nurtures them to be civic-minded citizens of the world. In response to the challenges we face in today's interconnected and dynamic world, our academic programmes and pedagogies have undergone many innovative changes over the years, while never losing sight of the humanistic spirit, a guiding principle since our inception.

Our eight academic Faculties, in partnership with over 310 research institutes and joint research centres, have made ground-breaking advances in research and innovation. Many breakthroughs in fields such as biomedical science and artificial intelligence have been translated into marketable products.

As we aspire to carry out the role of a civic university to achieve "Excellence with Purpose and Responsibility", we are eager to further strengthen multidisciplinary collaborations and partnerships with academic institutions and industries around the world. We see ample, exciting opportunities that build on Hong Kong's strategic position in China, in particular the Guangdong-Hong Kong-Macao Greater Bay Area where we can capitalise on our education and research capabilities and expertise to propel innovation and sustainable development both locally and globally.

We are celebrating the 60th anniversary of CUHK in 2023. This is a significant milestone as we have seen rapid changes in the world – globalisation, technological advancement, political and economic developments, and digital transformation, not to mention a once-in-a-century global pandemic. Despite all the challenges, CUHK has been able to stand the test of time by staying true to its roots. It has grown from a young university to a full-fledged 21st century academic institution and nurtured countless brilliant minds whose achievements have gone far beyond the frontiers of learning and research in many directions, making notable contributions to society. CUHK is, truly, a place where great minds shine.

This is an exciting time to be a part of CUHK. We look forward to achieving even greater success in education and research and extending our impact to benefit the worldwide community.

Rocky S. Tuan  
Vice-Chancellor and President

# CUHK AT A GLANCE



## The Chinese University of Hong Kong

is a highly esteemed, forward-looking comprehensive research university, recognised for excellence both regionally and globally. Founded in 1963, it is the second oldest university in Hong Kong.

With a founding philosophy to combine tradition with modernity and to bring together China and the West, CUHK sets itself apart from the others with its deep roots in Chinese culture, its emphasis on bilingualism and multiculturalism, and a unique college system. As a university with a worldwide footprint, CUHK teachers and students hail from across the globe with a network of over 250,000 alumni.

CUHK's research excellence is built from its distinguished faculty and thriving research ecosystem. The University boasts a galaxy of distinguished scholars and researchers who gained recognition worldwide for their contributions to education and research, including a Nobel laureate, a Fields medallist, and a Turing Award winner. Riding on its research strengths in medicine, biotechnology, and engineering, CUHK aims to promote interdisciplinary research that can deliver benefits, tackle grand challenges, and fulfil societal needs locally, nationally, and globally.

## A Focus on Student Development

CUHK is the only university in Hong Kong that offers a collegiate system, with a wide range of non-formal learning opportunities that complement formal curricula.

The nine colleges of the University are congenial communities with their own hostels, dining halls and other facilities. They are designed to help students develop interpersonal skills and cultural sensitivities, while building their confidence and sense of social responsibility. Providing pastoral care and whole-person education, each college is a closely-knit community that enables students to reach their full potential.

## Space to Learn and to Grow

CUHK has the largest, greenest and most scenic campus in the city. Designed for sustainability, the 137.3-hectare campus houses contemporary learning facilities as well as a range of cultural, sport, and social amenities together with a teaching hotel and teaching hospital. The campus is conveniently connected to the MTR system and all parts of the city.

## A Teaching Facility for the Future

The CUHK Medical Centre (CUHKMC), Hong Kong's first non-profit private teaching hospital, commenced its services in 2021. Located on the campus, CUHKMC has a social mission of bridging the service gaps between private and public healthcare in Hong Kong. It aims to bring pioneering healthcare solutions to the city and deliver integrated and holistic care to patients.

Dedicated to offering quality and reliable healthcare services at affordable and transparent package prices, the hospital provides a full range of medical services. It also serves as a base for clinical research, healthcare education and professional training.



## Facts and Figures



## Colleges

Chung Chi College	New Asia College	United College
Shaw College	Morningside College	S.H. Ho College
C.W. Chu College	Wu Yee Sun College	Lee Woo Sing College

## Faculties



## World-class Scholars

The University boasts a galaxy of distinguished scholars and researchers who are highly regarded authorities in various specialties. They include:

- |  |   |   |   |
|--|---|---|---|
| <b>1</b><br>Nobel Laureate<br>Fields Medallist<br>Turing Award Winner    | <b>1</b><br>Fellow of the Royal Society<br>Fellow of the US National Academy of Inventors | <b>1</b><br>Future Science Prize Lasker Award Winner                                  | <b>11</b><br>Clarivate Analytics' Highly Cited Researchers 2022 |
| <b>5</b><br>RGC Senior Research Fellows and RGC Research Fellows 2022-23 | <b>17</b><br>International Exhibition Inventions Geneva Winners 2022                      | <b>49</b><br>Scholars Listed in World's Top 2% Scientists 2022 by Stanford University | <b>5</b><br>China's Excellent Young Scientist Fund Winners 2022 |

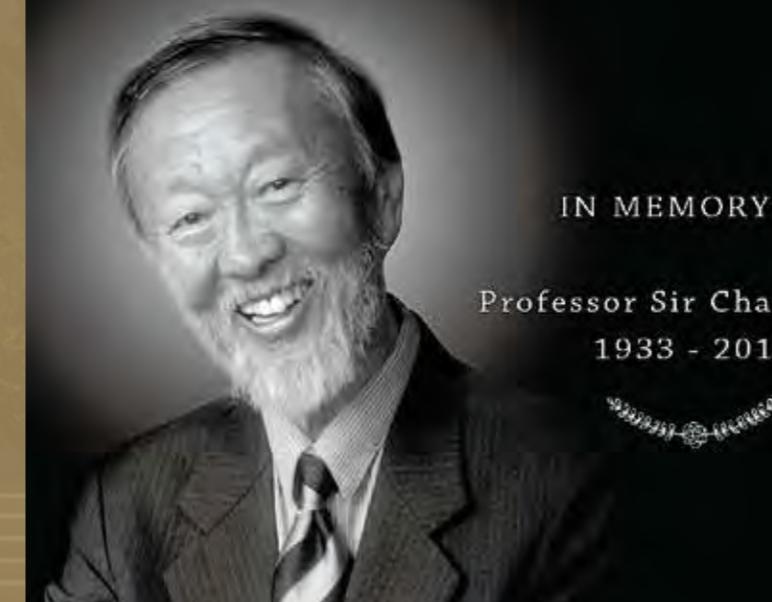


## Distinguished Professors-at-Large

- 1 Prof. Chen-ning Yang, Nobel Laureate in Physics
- 2 Prof. Andrew Yao, Turing Award Winner
- 3 Prof. Shing Tung Yau, Fields Medallist

## Professor Sir Charles K. Kao

IN MEMORY OF  
Professor Sir Charles Kao  
1933 - 2018



Professor Sir Charles K. Kao was the third Vice-Chancellor of CUHK from 1987-1996. Known as the "Father of Fibre Optics", Prof. Kao was awarded the 2009 Nobel Prize in Physics for his ground-breaking accomplishments in the area of fibre optics which brought forth the development of the internet and opened a new page in the history of telecommunications.

# EDUCATION

## A Leader in Higher Education

CUHK prides itself in its dedication to education. We nurture students to be responsible global citizens capable of making lifelong contributions to society. Students benefit from a curriculum that is characterised by bilingualism, multiculturalism and a discipline specialty. It is complemented by an award-winning general education programme of broad-based relevance, which has been a hallmark of CUHK undergraduate education.

CUHK offers a wide range of academic programmes leading to bachelor's, master's and PhD degrees through our eight faculties and a graduate school, including one of only two medical schools in Hong Kong.

Given our geographical location, traditions and ties, CUHK enjoys special advantages in the study of Chinese culture, society and business. Different specialties in engineering and science command world-leading positions, while our business, law and medical schools are highly regarded for their professional training and seminal research.

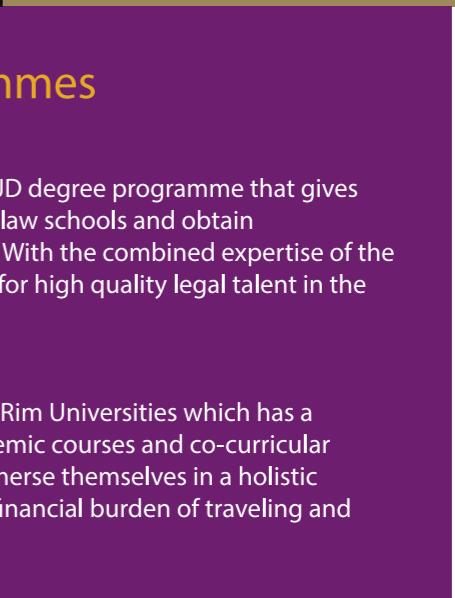
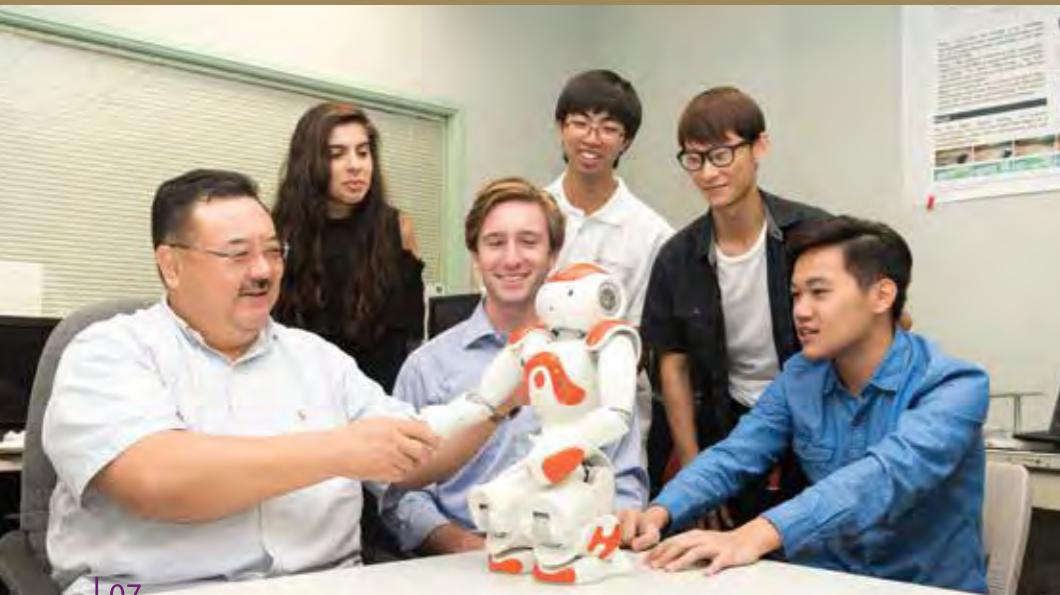
We offer undergraduate programmes centred on a four-year credit-based curriculum, as well as various postgraduate programmes that are widely recognised throughout the world. In partnership with world-renowned universities, we offer dual degrees and joint teaching programmes in business, engineering, law, medicine and the social sciences that prepare our students for global careers. CUHK also offers Hong Kong's first university-wide Co-Operative Education Programme (Co-Op @CUHK) and a series of MOOCs on various platforms with a wide regional and global reach.

## Teaching of the Highest Quality

CUHK has been consistently commended in quality audits carried out by Hong Kong's University Grants Committee (UGC) for providing a high standard of teaching and learning, a high quality student learning experience and its achievement in international outreach.

The University's general education programme receives accolades locally and internationally for its design and implementation. Besides, the Association of Pacific Rim Universities (APRU) Virtual Student Exchange Programme, conceptualised and managed by CUHK, was 'Highly Commended' for International Strategy of the Year at the Times Higher Education (THE) Awards Asia 2021.

Taking pride in the quality of education we offer, we are committed to continuous improvement in order to provide the best learning experience for our students.



## International Education Programmes

### Dual LLB-JD Degree Programme

CUHK and King's College London offer a unique dual LLB-JD degree programme that gives students the rare opportunity to study at two world-class law schools and obtain qualifications in both England and Wales and Hong Kong. With the combined expertise of the two universities, the programme fulfils the growing need for high quality legal talent in the world's leading financial centres.

### APRU Virtual Student Exchange (VSE) Programme

VSE allows students from across the Association of Pacific Rim Universities which has a membership of 61 universities to take part in online academic courses and co-curricular programmes offered by participating universities and immerse themselves in a holistic academic and cultural exchange experience without the financial burden of traveling and living abroad.

## Graduates and Alumni Network

Our graduates are often readily accepted by prestigious overseas institutions of their choice for further degree studies. They are in great demand among local employers and multinational companies, and 90% of them are able to secure employment within the first year of their graduation. CUHK graduates also consistently receive high ratings in government and private employer surveys.

A global network of over 250,000 CUHK alumni flourishes in all professions and sectors, from finance and IT to education and the civil service. These alumni contribute to the University by providing mentorship, career guidance and even early career launches.





# STUDENT EXPERIENCE

## Where Students Soar

A world-class university with a global outlook, CUHK offers a unique opportunity to excel in a stimulating intellectual environment alongside a cosmopolitan group of students in one of the world's most dynamic cities.

The student experience is at the heart of the CUHK education. We promote whole-person education and assist students to develop their full potential through artistic, sports, leadership and community service activities outside the classroom. We foster students' holistic development through social and civic engagement, enhancing their personal growth and contributing to developing a better world. To help students soar in their chosen fields, we also provide various enrichment programmes that strengthen their interpersonal, problem-solving and leadership skills.

As Hong Kong plays a strategic role in the national Greater Bay Area initiative, CUHK students are especially well prepared to take up career opportunities in mainland China.

## A Rich Multicultural Experience

Our home in Hong Kong, Asia's World City, offers a truly international experience in an environment where students from more than 70 countries live and study together on a culturally-integrated campus.

Full scholarships covering tuition and living expenses are offered to attract talent from within the region and around the world.

CUHK is a regional pioneer in international education. Since establishing our first student exchange partnership with the University of California system in 1965, we have accumulated almost six decades of international education experience.

CUHK broadens the student learning experience by providing abundant opportunities to undertake an exchange for periods ranging from a few weeks to a term or a year at 280 world-renowned partner institutions in over 35 countries and regions. Every year, about 6,000 students undertake an exchange or join experiential learning programmes such as research trips, field visits, internships, and service learning and cultural exposure programmes outside Hong Kong.

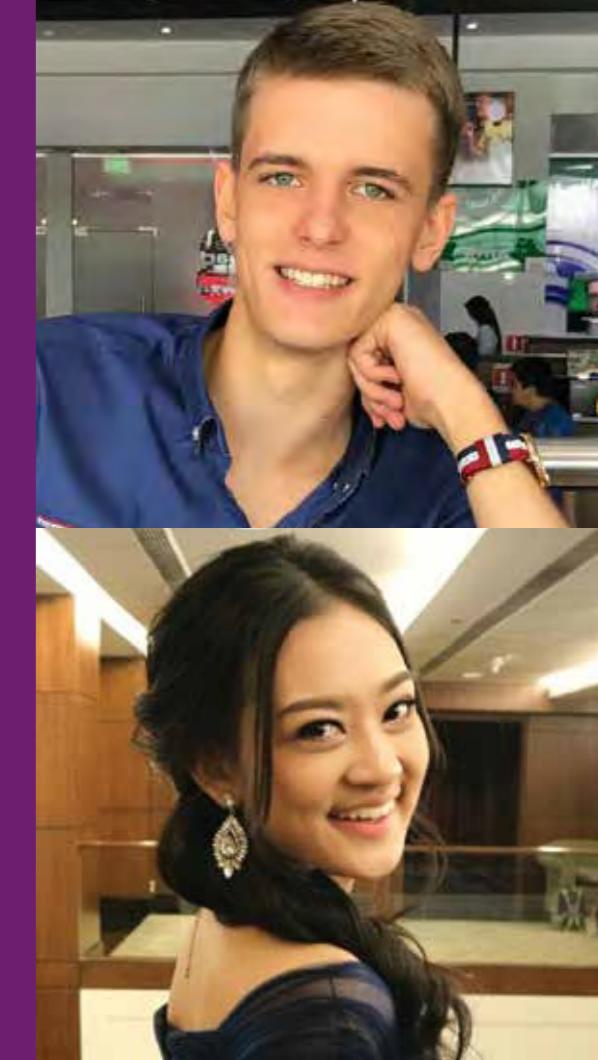
At the same time, over 2,500 visiting students come to CUHK annually, creating a melting pot of cultures. Through various activities and programmes, students are brought together from different ethnic, cultural, socio-economic, and linguistic backgrounds.

The diverse student experience at CUHK, combined with excellence in teaching and a multicultural atmosphere, produces graduates who are future global leaders with the drive and ability to make lifelong contributions to society.

## Our International Students

### Pavel Ustyantsev

Born and raised in Kazakhstan, Pavel hopes to develop a global outlook by studying in Hong Kong's culturally diverse environment. He joined the CUHK Summer Institute, an experience that prompted him to pursue studies in a different culture. He plans to major in financial technology so that he can introduce technological innovation to the financial services industry of Kazakhstan or Russia after graduation.



### Chananchida Choochua

Chananchida dreamed of studying overseas since her childhood. As a top student in Thailand, she received the Hong Kong Scholarship for Belt and Road Students (Thailand) by the Hong Kong Government and a University Admission Scholarship by CUHK to study business in Hong Kong. She has been sharing her experiences with secondary students in Thailand through social media to help them explore the possibility of studying abroad.

## Our Exchange Students

### Miguel Cibien

The two semesters of exchange that I spent at CUHK were intense and beautiful. I instantly fell in love with the campus, and since then there has not been one evening that I have not been glad to recall its peacefulness after a whole day in the hectic city. In the midst of the dazzling skyscrapers of Hong Kong, CUHK was my perfect hideaway from which to dive deep in this great city. I truly call it home.

### Li Cong Chua

I received support from the Australia Endeavour Cheung Kong Scholarship Programme for my exchange in Queensland. I gained a better understanding of my own identity by exposing myself to a culturally diverse environment, where I interacted with people from different backgrounds and beliefs. My communication and interpersonal skills have been strengthened, which will be essential for my future career development.

# RESEARCH EXCELLENCE



## World-class Research at CUHK

Research lies at the heart of the vision and mission of CUHK. A champion of research and innovation that create value and bring benefits to society, CUHK is recognised as a leading research university in Asia and among the best in the world.

Among our most notable research achievements are the advances we have made in liquid biopsy in prenatal testing and early cancer detection, biotechnological improvements of soybean, molecular analysis for cancer and metabolic disease detection and treatment, drug development for rare neurodegenerative diseases, network coding theory that has revolutionised data transmission and network applications, and artificial intelligence and robotics for innovative technologies in biomedical and smart city applications.

With the support of a wide array of research institutes and centres, CUHK has long promoted interdisciplinary research excellence on a local, national and international level. We encourage international research collaborations and have established a number of joint research units in partnership with eminent institutions in mainland China and overseas that are helping to advance knowledge in a variety of subject areas and addressing some of the world's challenges.

Evidence of the strength, variety and impact of our research can be seen in the establishment of five State Key Laboratories entrusted by the Ministry of Science and Technology of China, 11 CUHK-led Areas of Excellence research projects supported by the Hong Kong University Grants Committee, and six InnoHK Centres under the Hong Kong Government's InnoHK initiative.

In line with the CUHK Strategic Plan 2021–2025, CUHK will focus on integrating research, innovation and enterprise into a dynamic and productive continuum, a superhighway that enables the translation of research into tangible benefits and the delivery of innovation to the world.

### Areas of Excellence

- Aging, Skeletal Degeneration and Regeneration
- Centre for Genomic Studies on Plant-Environment Interaction for Sustainable Agriculture and Food Security
- Centre for Medical Engineering of Molecular and Biological Probes
- Centre for Organelle Biogenesis and Function
- Centre for Plant and Agricultural Biotechnology
- Centre for Research into Circulating Fetal Nucleic Acids
- Chinese Medicine Research and Further Development
- Information Technology
- Institute of Network Coding
- Probing the Fundamental Structure of Matter with High Energy Particle Collisions
- The Historical Anthropology of Chinese Society

### State Key Laboratories

- State Key Laboratory of Agrobiotechnology (CUHK)
- State Key Laboratory of Digestive Disease (CUHK)
- State Key Laboratory of Research on Bioactivities and Clinical Applications of Medicinal Plants (CUHK)
- State Key Laboratory of Synthetic Chemistry (Partnership with The University of Hong Kong)
- State Key Laboratory of Translational Oncology (CUHK)

### CUHK InnoHK Centres

- Health@InnoHK
- Centre for Neuromusculoskeletal Restorative Medicine
- Centre for Novostics
- Microbiota I-Centre
- AIR@InnoHK
- Centre for Perceptual and Interactive Intelligence
- Hong Kong Centre for Logistics Robotics
- Multi-Scale Medical Robotics Centre

## Strategic Research Areas

CUHK has identified four unique, yet complementary strategic areas of research which anchor the University's research focus under its Strategic Plan.



## China: Tradition and Modernity

As China takes centre stage in the world's economic, cultural and political arenas, understanding and engaging China is of critical importance to global development. CUHK possesses geographical and cultural advantages to spearhead various aspects of China research, with over 200 faculty members and a good number of centres and institutes devoted to various aspects of China Studies.

### Related Research Centres

- Centre for China Studies
- Centre for Chinese Media and Comparative Communication Research
- Centre for Comparative and Transnational Law
- CUHK-Tsinghua University Joint Research Centre on Chinese Economy
- CUHK-Zhejiang University Joint Research Centre for Digital Economy
- Hong Kong-Shenzhen Finance Research Centre
- Hong Kong Institute of Asia-Pacific Studies
- Institute of Chinese Studies

### Chinese Economy

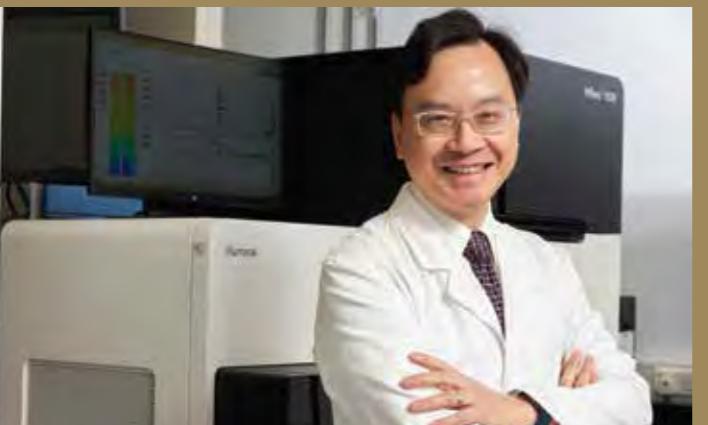
Prof. Michael Song is a renowned expert on Chinese economy and macroeconomics. In collaboration with Tsinghua University, Prof. Song is leading a project funded by the National Natural Science Foundation of China and Hong Kong's Research Grants Council on providing a quantitative and panoramic evaluation of China's industrial policies. The results will enable a deeper understanding of the modern Chinese economy and open vital discussions on future policy design, particularly the initiatives of the Guangdong-Hong Kong-Macao Greater Bay Area. He also leads a long-term project funded by Becker Friedman Institute at The University of Chicago on growth and development in China.





## Innovative Biomedicine

With an ageing population in many parts of the world and the sporadic emergence of global infectious disease threats, biomedical research is essential to defending, upkeeping and enhancing public health. CUHK is a world leader in genetic, genomic and precision medicine. It is a pioneer in, among other things, non-invasive prenatal testing, cancer liquid biopsies and genomics of cancers common in Asia.



### Prenatal Diagnosis

Regarded as one of the most impactful breakthroughs in the world scientific community, Prof. Dennis Lo, Director of the Li Ka Shing Institute of Health Sciences discovered the presence of cell-free fetal DNA in maternal plasma and pioneered non-invasive DNA blood test for Down syndrome that has benefited millions of women globally. The work provides a foundation for non-invasive prenatal tests for multiple genetic diseases. Prof. Lo is also pushing forward the use of a similar approach for screening of early cancers. Prof. Lo's work has brought him numerous honours, including the King Faisal International Prize in Medicine, the Future Science Prize, the Fudan-Zhongzhi Science Award, the Breakthrough Prize in Life Sciences, the Royal Medal, and the Lasker Award.

### Related Research Centres

- Hong Kong Institute of Integrative Medicine
- Hong Kong Cancer Institute
- Hong Kong Institute of Diabetes and Obesity
- Institute for Tissue Engineering and Regenerative Medicine
- Li Ka Shing Institute of Health Sciences
- Lui Che Woo Institute of Innovative Medicine

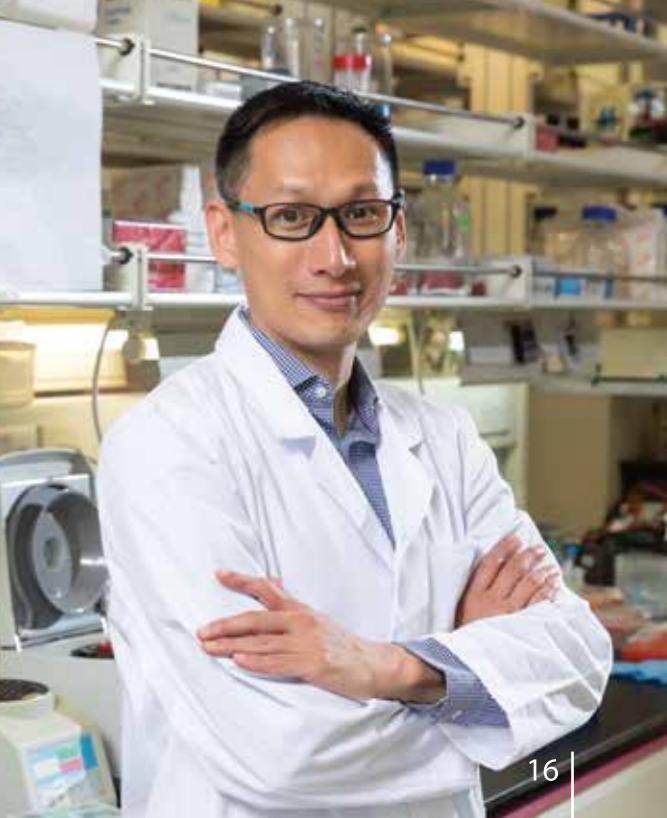
## Tissue Engineering and Regenerative Medicine

The Institute for Tissue Engineering and Regenerative Medicine (iTERM) integrates multiple disciplines in biomedical sciences, engineering, and clinical medicine for the development of neuromusculoskeletal tissue engineering and regenerative medicine. Prof. Rocky S. Tuan's work on stem cell aims to discover the mechanisms that regulate their regenerative ability to repair and restore function to tissues that have been compromised as a result of injury, trauma, disease or ageing. He engineered the first three dimensional joint-on-a-chip, called the "microJoint", to replicate a human joint using a microbioreactor platform. He was elected fellows of the National Academy of Inventors, the China Association of Inventions, the Orthopaedic Research Society and the Tissue Engineering and Regenerative Medicine International Society for his innovation and translational research that bring significant impact on society.



## Novel Therapeutics for Rare Neurodegeneration

Led by Prof. H.Y. Edwin Chan from the School of Life Sciences, our pioneering research in the development of novel peptidylic and small molecule inhibitors has opened up new horizons in finding cure for rare neurodegenerative diseases which are currently incurable. In collaboration with an international team of scientists, Prof. Chan has unveiled a toxic RNA's role in neuronal DNA damage and developed new therapeutic direction for Huntington's disease. His team will conduct preclinical experiments on non-human primates with pharmaceutical companies. Besides, Prof. Chan has established an intercontinental research collaboration network to promote research on and treatment for rare neuronal diseases, including amyotrophic lateral sclerosis/frontotemporal dementia, myotonic dystrophy and spinocerebellar ataxias. He has recently been awarded a technology start-up fund to integrate his research findings in drug development to cure rare neurodegenerative diseases.



## Gut Microbiota

Gut microbiome does not only affect our gastrointestinal health but also plays an important role in the functions of our immune system and our brain. Prof. Francis Chan and Prof. Siew Chien Ng of the Department of Medicine and Therapeutics have developed the first and most comprehensive fecal microbiota transplantation programme in Asia which involves extracting healthy microbiome and "planting" the good microbes into the gut of diseased individuals to improve health. They have also made important discoveries during the COVID-19 pandemic and have successfully developed a microbiome immunity formula to hasten recovery and boost antibody formation in patients with COVID-19 via restoration of the gut microbiome.



## Information and Automation Technology

Information technology pervades all aspects of human life. CUHK is a leading institution in Asia in machine learning and AI research. It has attested expertise in data networks, information coding, network security, big data analytics, robotics, financial technologies, optimisation, renewable energy, optical communications and computer-aided design automation, and biomedical imaging.

### Related Research Centres

Chow Yuk Ho Technology Centre for Innovative Medicine

CUHK Interdisciplinary Artificial Intelligence Research Institute

CUHK T Stone Robotics Institute

CUHK-University of California, Berkeley-Harbin Institute of Technology Joint Research Institute on Robotics

Hong Kong Institute of Quantum Information Science and Technology

Institute of Network Coding

Institute of Optical Science and Technology

Shun Hing Institute of Advanced Engineering

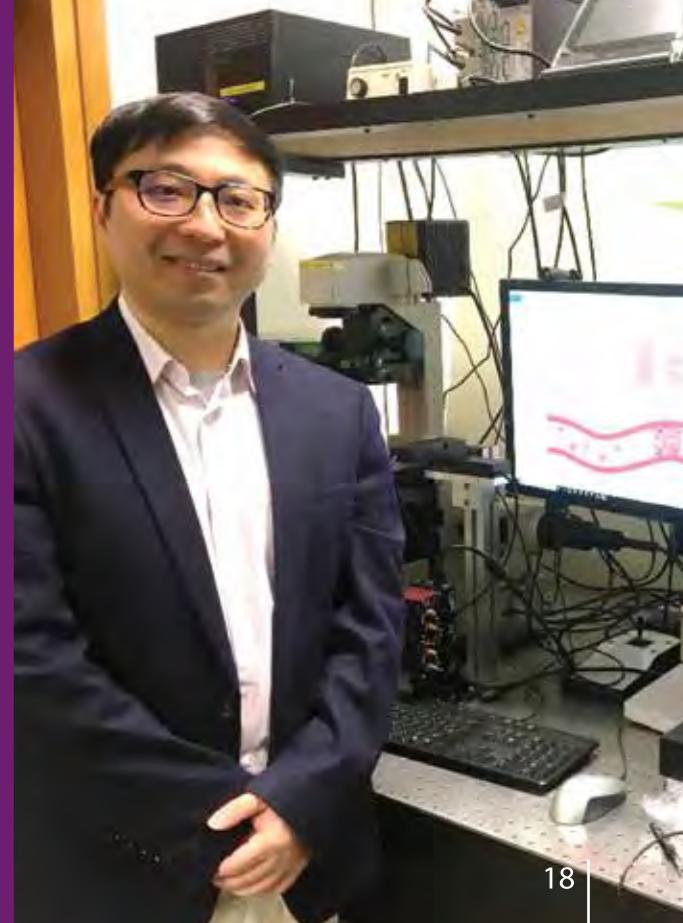
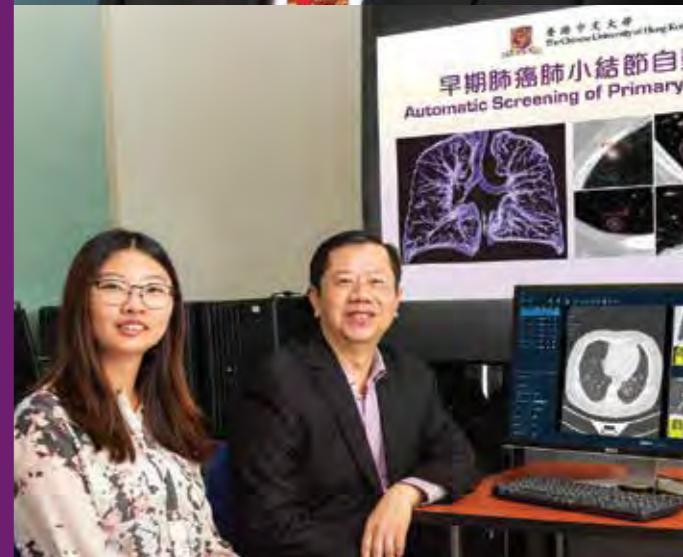
Stanley Ho Big Data Decision Analytics Research Centre

### Network Coding

A forerunner in telecommunications, the Institute of Network Coding headed by Prof. Raymond Yeung made major breakthroughs in information science resulting in network communications that is more efficient, reliable and secure. This revolutionary research on network coding has far-reaching impact not only on wireless communications but also in the aerospace industry. The technology has resulted in patents from a number of different countries and the research team is now working towards its future applications for satellite communications, the Internet of Things, wireless sensor/mesh networks, and smart lampposts.

### AI-assisted Cancer Diagnosis

At the forefront of international medical technology, Prof. Pheng-Ann Heng and Prof. Qi Dou of the Department of Computer Science and Engineering have developed an innovative artificial intelligence system using an automated medical image processing technology, through deep learning, in offering efficient diagnosis using CT scan and histopathological images. The system has been validated on two of Hong Kong's most prevalent cancers, lung cancer and breast cancer, with high accuracies. With the boost of efficiency in clinical diagnosis, the cutting-edge technology is expected to be widely adopted by the medical sector in the near future.



### Medical Robotics

Prof. Li Zhang of the Department of Mechanical and Automation Engineering has invented a robot that is suited to minimally invasive surgery and more. His slimy fluid-based soft robot is characterised by its electrical conductivity and high adaptability which has opened up new possibilities for biomedical applications in the human digestive system. Besides, his team has developed an artificial intelligence navigation system that can allow millions of microrobots to behave like a bee swarm, autonomously reconfiguring their motion and distribution according to environmental changes. The system is set to be used in therapeutic applications, deploying microrobots to perform crucial tasks like drug delivery in the human body without requiring surgeons to undertake specialised training.



## Sustainable and Climate-Smart Agriculture

Promoting sustainable agriculture is vital to achieving zero hunger, eliminating poverty and tackling the global challenge of climate change. Led by Prof. Hon-Ming Lam, the Hong Kong Government-funded Areas of Excellence Centre for Genomic Studies on Plant-Environment Interaction for Sustainable Agriculture and Food Security is committed to developing new technologies to strike a better balance between sustainable agriculture and food security. Prof. Lam applied combined genomic and genetic approach to identify the major salt tolerance gene of soybean. He collaborated with breeders in China to generate three new stress-tolerant soybeans which increase food supply, reclaim semi-arid soils and reduce carbon emission in a sustainable manner. Since 2020, the soybean cultivation programme has been extended to South Africa and Pakistan. Prof. Lam has also led an international initiative to complete the world's first reference-grade genome, with important value in comparative genomics and evolutionary research as well as in crop breeding and improvement programmes.



## Environment and Sustainability

With the world facing a climate emergency and complex challenges posed by rapid

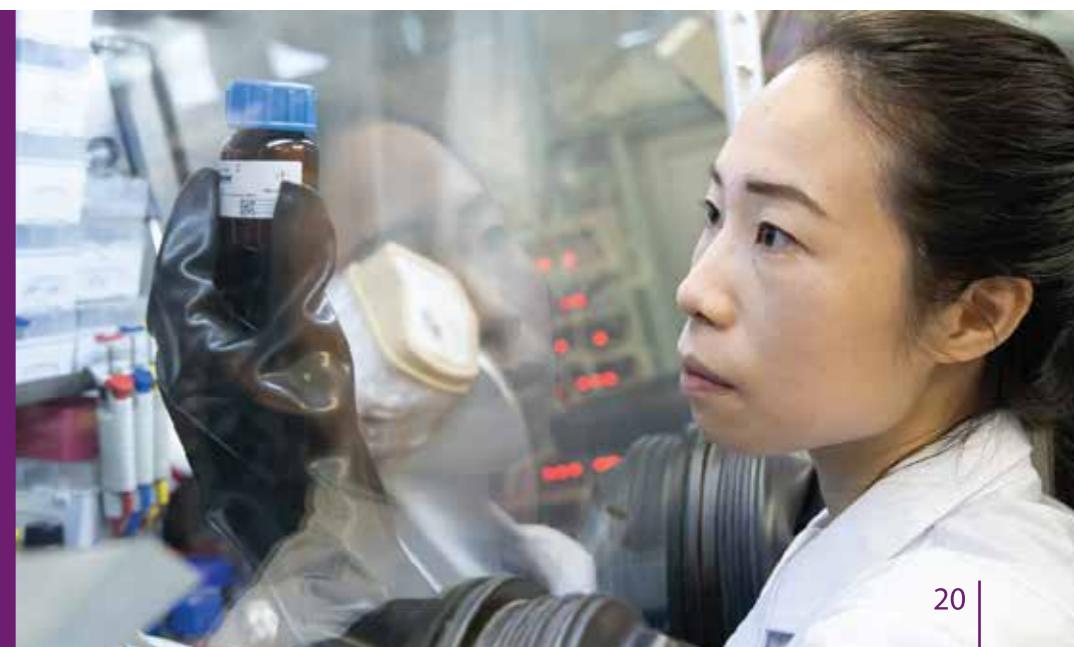
urbanisation, CUHK aims to position itself as a global thought leader in research on sustainable development in densely populated and highly mobile cities, as well as a global hub in computational approaches to environment and sustainability research. The University's sustainability research is anchored in a commitment to advancing the United Nations' Sustainable Development Goals.

### Related Research Centres

- Centre for Genomic Studies on Plant-Environment Interaction for Sustainable Agriculture and Food Security
- CUHK Jockey Club Institute of Ageing
- CUHK Institute of Health Equity
- CUHK-University of Exeter Joint Centre for Environmental Sustainability and Resilience (ENSURE)
- Great Bay University-CUHK Joint Institute of Advanced Materials and Green Energy Research
- Institute of Environment, Energy and Sustainability
- Institute of Future Cities
- Institute of Plant Molecular Biology and Agricultural Biotechnology
- Simon F.S. Li Marine Science Laboratory

## Clean Energy Storage

With the climate apocalypse looming, countries around the world have been striving to meet the zero emissions target by the middle of the century. Renewable energy and off-grid applications can be one way to go. A research team led by Prof. Yi-Chun Lu, Department of Mechanical and Automation Engineering, has developed a new electrolyte that enables high power, long life flow battery applications at both room temperature and low temperatures down to  $-20^{\circ}\text{C}$ . The safe and low-cost technology can be used in regions with cold weather or severe weather fluctuations, as well as renewable energy projects and electric vehicle solar charging stations, providing uninterrupted power supply. Prof. Lu's ground-breaking work has gained recognition from various awards and bodies, including the National Natural Science Foundation of China and the Falling Walls.



# Innovation and Impact

CUHK encourages interdisciplinary interactions and industrial partnerships with the aim of promoting knowledge transfer and creating positive economic and social impacts. In recognition of our achievements in advancing science, inventing new technologies and powering new markets and industries, CUHK has been ranked the most innovative university in Hong Kong for four years in a row in Reuters' ranking of Asia Pacific's Most Innovative Universities since 2016.

Promoting an entrepreneurial environment on our campus is conducive to innovation and creativity. In 2017, we launched the territory's first university-wide Minor Programme in Entrepreneurship and Innovation, which is open to all undergraduate students. In addition to the CUHK Pre-Incubation Centre on our Hong Kong campus, we also established an Entrepreneurship and Innovation Hub in Shenzhen that provides affordable space, mentorship and industry/market access for CUHK-enabled start-ups to expand in China.



## Restorative Medicine

Co-led by Prof. Patrick Yung and Prof. Woody Chan, the Centre for Neuromusculoskeletal Restorative Medicine is one of the new research laboratories under the Hong Kong Government's InnoHK initiative. It is a multidisciplinary, international consortium devoted to the application of convergent principles and technologies of biomedical science and engineering to restore structure and function to neuromusculoskeletal tissues and organs injured, diseased and degenerated due to ageing or trauma, for the maintenance of mobility and enhancement of quality of life through biomedical research and development.

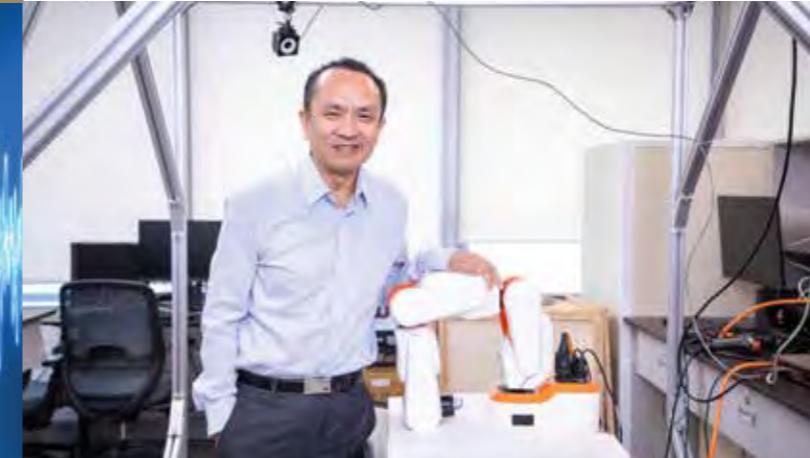
## Artificial Intelligence for Speech Processing

The onset of neurological diseases can make communication difficult. Although research on solving these problems is ongoing, this is stymied by the lack of a relevant, sizeable spoken language dataset to help researchers unlock what those affected are trying to say. Prof. Helen Meng, a specialist in artificial intelligence and deep learning, and Prof. Patrick Wong, an expert in neuroscience and linguistics, are collaborating on technology solutions for Cantonese speakers in Hong Kong who suffer from dysarthria, which affects the articulation of sounds and words, and have since expanded their research to neurological diseases such as dementia or neurocognitive disorder. Their cross-disciplinary research combines multilingual speech processing, artificial intelligence, neuroscience, and language learning.



## Deaf Education for an Inclusive Society

Prof. Gladys Tang, an expert in sign linguistics and language acquisition, has demonstrated that optimal learning for deaf children can be achieved by acquiring sign language and spoken language simultaneously. This finding dispels the misconception that acquiring sign language before spoken language is detrimental to spoken language development in deaf children. She also set up SLCO Community Resources to promote sign bilingualism for an inclusive society by extending this concept to a wider public. It is the first Hong Kong-based social enterprise to be recognised by Social Venture Challenge Asia, one of the most prestigious competitions for social enterprises in the region.



## Logistics Robotics

The Hong Kong Centre for Logistics Robotics led by Prof. Yunhui Liu was established with research contributions from the University of California, Berkeley. Established under the InnoHK initiative, it focuses on the research and development of robotics and artificial intelligence technologies for future workplaces as well as innovative solutions to the pressing problems in the logistics industry. In particular, it aims to advance robot intelligence in terms of smart perception, smart interactions, smart manipulation, and smart moving.

## Innovation in Rural Architecture

Prof. Peter Ferretto of the School of Architecture and his team at Condition\_Lab have designed and built an extraordinary new children's library, The Pingtan Book House, in mainland China. The building was designed to mix play and reading within a traditional timber structure, inspiring a love of both books and Dong culture in local youngsters. The project has won the World Interior of the Year Award and the Best Use of Natural Light Prize at the World Architecture Festival 2022, often referred to as the Oscars of architecture.

# GLOBAL ENGAGEMENTS



## Our Global Footprint

CUHK is a comprehensive research university with a global vision and a mission to combine tradition with modernity, and to bring together China and the West. Internationalisation is integral in our education and research, with a view to strengthening our research capacity, education for students, and impact around the world.

International academic exchange has been at the core of CUHK since our founding. Several overseas ties were in place with our constituent colleges prior to the University's establishment. Our first student exchange programme was established with the University of California system in 1965. Today, CUHK has formal partnerships with over 460 universities and institutions around the world, ranging from teaching and research collaborations to faculty and student exchanges, among many other engagements.

We are an active member of national, regional and international networks of higher education, research and engagement. Through the alliances we form with worldwide centres of excellence, we advance knowledge, develop innovative academic programmes that enrich students' learning experiences, and break new ground in research. The impacts we create across a wide range of disciplines address the many global challenges of today.

CUHK's focus on internationalisation is further reflected in our commitment to building a multicultural environment on campus. Students and teachers hail from countries all around the world, with 30% of our students and 51% of our teachers originating outside Hong Kong.

## Global Partnerships

### Stanford University, USA

CUHK is host to Stanford University's Bing Overseas Studies Programme (BOSP) in Hong Kong. It is the only BOSP programme in Greater China. Students enrol in a tailor-made programme jointly developed by Stanford and CUHK to gain exposure to courses within the social sciences and China Studies, enrich their understanding of Chinese culture and immerse themselves into the local community.



### Waseda University, Japan

CUHK and Waseda University offer dual undergraduate degree programmes focusing on social science disciplines to broaden students' learning experience and cultivate all-round global leaders in Asia.

Hong Kong Chapter of the United Nations' Sustainable Development Solutions Network (SDSN Hong Kong)  
Co-hosted by CUHK and The Hong Kong Jockey Club Charities Trust, SDSN Hong Kong mobilises knowledge institutions to foster transformative solutions to sustainability issues and pursues the Sustainable Development Goals in Hong Kong.

University of Exeter, UK  
ENSURE, the CUHK-University of Exeter Joint Centre for Environmental Sustainability and Resilience embarks on large, impactful interdisciplinary collaborations to tackle emerging issues related to a changing environment and human health and well-being.

Utrecht University, The Netherlands  
Our partnership with Utrecht University is extensive, covering cities and sustainability, neuroscience, and regenerative medicine. Our joint centres include the CUHK-UU Joint Centre for Language, Mind and Brain and CUHK-University Medical Center Utrecht Joint Research Laboratory of Respiratory Virus and Immunobiology.

## National, Regional and International Memberships

- Asia-Pacific Association for International Education
- Association of Commonwealth Universities
- Association of Pacific Rim Universities
- China-UK Humanities Alliance for Higher Education
- Guangdong-Hong Kong-Macau University Alliance
- Innovation and Entrepreneurship Education Alliance of China
- International Universities Climate Alliance
- Mainland-Hong Kong-Macau Law Education Alliance
- University Alliance of the Silk Road
- Worldwide Universities Network

# NATIONAL ENGAGEMENTS

## Comprehensive Presence

CUHK is the first local university to establish a comprehensive presence in mainland China. Beginning with the connections formed by our constituent colleges prior to the establishment of the University, we have had long and deep academic ties with leading universities and research organisations in mainland China, many in key national priority areas. We are equally committed to developing teaching and learning programmes that benefit CUHK students as well as our mainland partners. This includes dual degree programmes with some of the most prestigious universities to take advantage of the distinct curricula and expertise of two disciplines in two institutions.

We have a strong foothold in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Since 2006, CUHK has established a range of education and research platforms in GBA, including CUHK-Shenzhen, CUHK Shenzhen Research

Institute, Shenzhen Institute of Advanced Technology, and CUHK Hong Kong-Shenzhen Innovation and Technology Research Institute (Futian). Major new initiatives and collaborations are underway to achieve substantial outcomes in basic research, talent cultivation, as well as innovation and entrepreneurship in the region.

CUHK is more focused than ever on identifying opportunities to integrate with the nation's development. The University will soon open the CUHK Shanghai Centre and the CUHK Beijing Centre which will serve as important platforms for academic, alumni and entrepreneurial collaborations.

## The Chinese University of Hong Kong, Shenzhen

The Chinese University of Hong Kong, Shenzhen (CUHK-Shenzhen) extends the core educational philosophy and values of the University beyond Hong Kong. It offers bachelor's, master's and PhD degrees through the School of Management and Economics, School of Science and Engineering, School of Humanities and Social Science, School of Data Science, School of Music, and School of Medicine. Currently, more than 8,000 students are studying at CUHK-Shenzhen.



## CUHK Shenzhen Research Institute

CUHK's wholly-owned Shenzhen Research Institute serves as a pivotal base for conducting research, training, and technology transfer on the mainland, particularly in the Greater Bay Area. The Institute's major research areas include agricultural and plant science, biotechnology, information and communication technology, economics, social science, future cities and innovative engineering.



## Shenzhen Institute of Advanced Technology

CUHK partnered with the Chinese Academy of Sciences and Shenzhen Municipal Government to establish the Shenzhen Institute of Advanced Technology (SIAT). SIAT plays a significant role in technology innovation, industry collaboration, and economic development in the region, focusing on multidisciplinary integration development of information technology and biotechnology. It includes eight affiliated institutes (with 51 research centres) and is home to nine national innovation laboratories and 34 key laboratories and platforms. SIAT has established partnerships with over 1,000 firms, attracting over RMB 500 million (US\$73 million) of industrial investment and incubating over 700 high-technology companies.



## CUHK Hong Kong-Shenzhen Innovation and Technology Research Institute (Futian)

The Hong Kong-Shenzhen Innovation and Technology Research Institute (Futian) was established to enhance the linkage and elevate CUHK's presence of research excellence in the Lok Ma Chau Loop Area.



Riding on the opportunity brought by the regional development, the Institute aims to advance research collaboration in robotics, artificial intelligence and medicine to serve the needs of the Greater Bay Area.



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