

APCIEE

Asia-Pacific Conference on Innovation and Entrepreneurship Ecosystems

6-7 December 2021

Institute for Advanced Study, Lo Ka Chung Building
The Hong Kong University of Science and Technology



Registration

**The APCIEE Conference 2021
is free of charge.
All are welcome!**

Asia-Pacific Conference on Innovation and Entrepreneurship Ecosystems (APCIEE)

6-7 December 2021 (Monday – Tuesday)

Institute for Advanced Study, Lo Ka Chung Building
The Hong Kong University of Science and Technology

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ABOUT APCIEE

World-class research universities are the incubators of scientific and technological discoveries. They are one of the essential drivers at the upstream for the growth of innovation. In the Asia Pacific area, there are a growing number of research universities that are ranked among the global top 100, and they are engaged in cutting-edge research that is vital to achieving the vision of creating innovation and entrepreneurship hubs in the region. However, is having these institutions around sufficient to drive innovation and entrepreneurship? Support of the industrial sector, channels of financial support, supply of talents and workforce coupled with local and national policy all constitute elements of a successful implementation.

In partnership with the Association of Pacific Rim Universities (APRU), the Division of Public Policy (PPOL) at the Hong Kong University of Science and Technology (HKUST) will host an inaugural Asia-Pacific Conference on Innovation and Entrepreneurship Ecosystems (APCIEE) in this coming December. The conference aims at creating a venue for critical dialogues focusing on nurturing an innovation and entrepreneurship ecosystem, cultivating collaboration across disciplines, sectors, and governing bodies, inspiring the younger generation to take on the challenge ahead. Bringing together thought leadership, key stakeholders, experience practitioners, and budding young minds, the conference will bridge the knowledge gap between researchers, policy-makers, business leaders, university leaders, entrepreneurs and investors on many pressing issues essential for converting the existing strengths of research universities into resources that can draw on talents around the world and catalyze innovation with a stronger momentum, realizing the true impact of this regional initiative in the coming decades.

Thematic Sessions:

- ❖ **Artificial Intelligence (AI) Entrepreneurship in Health Care Industry**
- ❖ **Role of Research Universities in Innovation-led Economic Growth**
- ❖ **Synthetic Biology and Bio-Economy**

Conveners' Message

Hong Kong as a key player in the Greater Bay Area is always at the cross road of global activities from finance, trade, education, knowledge creation, innovation and entrepreneurship. Gradually recovering from the pandemics and spurred by various national and regional development directives, it is bound to play even a more important role to energize this region as a leading hub in the Asia Pacific region. With our support of partner institutions and organizations, this conference tries to review some critical factors that are essential to pave the way for a successful implementation of a grand scheme. We will learn about hurdles and strategies from other successful practices, and identify opportunities and conduits in this fast changing environment. Through the dialogue among players in the business, industry, academia and policy makers, we hope to define the barriers, identify feasible solution, empowering and possibly disruptive policy that will guide the community forward with implementable initiatives. We also want to engage younger generation in this process, so that we can funnel new blood and energy to drive this agenda. Hope that we will be able to come up with a few action items after these exchanges and lay down workable time line to shape a more conducive sustainable ecosystem for the development of this region as an innovation hub spearheading in this region both digital transformation of industrial/business sectors, growing a healthcare enterprise and building a blooming bioeconomy. Colleagues and students are encouraged to actively chip in during the process and be inspired to take the next step.



Prof. King L. CHOW

Acting Dean of Students & Professor of Life Science and Biomedical Engineering,
The Hong Kong University of Science and Technology

Acknowledgements

The Organizing Committee is grateful to the following co-organizers and members for their generous support to this conference:

Co-organizers:



Organizing Committee

Convener and Chair:

Prof. King-Lau Chow,

Acting Dean of Students, The Hong Kong University of Science and Technology

Members:

Prof. Max Z. J. Shen,

Vice-President and Pro-Vice-Chancellor (Research), The University of Hong Kong

Prof. Wai-Yee Chan,

Pro-Vice-Chancellor and Vice-President, The Chinese University of Hong Kong

Strategic Partners

The Organizing Committee is grateful to the following Sponsors for their generous support to this conference:



Association of Pacific Rim Universities (APRU)



粵港澳院士專家
創新創業聯盟



Our Hong Kong Foundation (OHKF)

OUR HONG KONG
FOUNDATION
團結香港基金



Federation of
Guangdong Academicians

List of Speakers

(By last name in alphabetical order)

Guests of Honor



Prof. Wei SHYY, JP
President,
The Hong Kong University of Science and Technology



Prof. Lionel M. NI
President,
The Hong Kong University of Science and Technology (Guangzhou)



Prof. Max Z. J. SHEN
Vice-President & Pro-Vice-Chancellor (Research),
The University of Hong Kong



Prof. Wai-Yee CHAN
Pro-Vice-Chancellor/Vice President and Li Ka Shing Professor of Biomedical
Sciences,
The Chinese University of Hong Kong

Keynote Speakers



Prof. K C CHAN, GBS, JP
Adjunct Professor of Finance,
The Hong Kong University of Science and Technology
Former Secretary for Financial Services and the Treasury, HKSARG



Prof. Peretz LAVIE
President Emeritus of Israel Institute of Technology





Prof. Harvey F. LODISH
Founding Member, Whitehead Institute for Biomedical Research
Professor of Biology & Professor of Biological Engineering, Massachusetts Institute
of Technology, Cambridge, MA

Moderators

	<p>Prof. Tim Kwang-Ting CHENG Dean of Engineering & Director of HKUST-WeBank Joint Lab, The Hong Kong University of Science and Technology</p>
	<p>Prof. King L. CHOW Acting Dean of Students & Professor of Life Science and Biomedical Engineering, The Hong Kong University of Science and Technology</p>
	<p>Prof. Naubahar SHARIF Acting Head and Professor, Division of Public Policy Professor, Division of Integrative Systems and Design The Hong Kong University of Science and Technology</p>
	<p>Prof. Bert SHI Professor of Electronic and Computer Engineering, The Hong Kong University of Science and Technology</p>
	<p>Prof. Xun WU Associate Director of IPO (Taught Postgraduate Studies) & Professor of Public Policy, The Hong Kong University of Science and Technology</p>

Featured Speakers / Panelists

	<p>Prof. Geoff BALDWIN Professor of Synthetic & Molecular Biology Co-Director, Imperial College Centre for Synthetic Biology Director, EPSRC Centre for Doctoral Training in Bio Design Engineering, Imperial College London</p>
	<p>Prof. François BANEYX Vice Provost for Innovation Director, CoMotion Charles W.H. Matthaei Professor, Chemical Engineering Director, Center for the Science of Synthesis Across Scales, University of Washington</p>
	<p>Dr. Ngai-tseung CHEUNG Chief Medical Information Officer, Hospital Authority</p>
	<p>Prof. Koenraad DEBACKERE Director of Leuven Research and Development (LRD), KU Leuven</p>



Dr. Shin Cheul KIM

Acting Associate Vice-President (Knowledge Transfer),
Director of Technology Transfer Center,
The Hong Kong University of Science and Technology



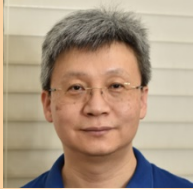
Dr. Albert Wing Yin KO

Director, Lingnan Entrepreneurship Initiative and Service-Learning,
Lingnan University



Prof. Daniel HS LEE

Associate Vice-President and Chief Innovation and Enterprise Officer, Office of
Innovation and Enterprise,
The Chinese University of Hong Kong



Dr. Le LU

Head of Medical AI R&D, Alibaba
Researcher (Senior Director), Alibaba DAMO Academy, USA



Mr. Rupert MOK

Secretary-General,
Hong Kong Medical & Healthcare Device Industries Association
Vincent Medical Holdings Limited,
Independent Non-Executive Director



Prof. Kazuyuki MOTOHASHI

Professor, Research Center for Advanced Science and Technology,
The University of Tokyo



Dr. Yuan NI

Deputy Chief Engineer, PingAn Technology



Dr. Cheuh Loo POH

Associate Professor, Department of Biomedical Engineering,
National University of Singapore
Co-founder, AdvanceSyn Pte Ltd, Singapore



Mr. Kenny SHUI

Assistant Research Director and Head of Economic Development,
Our Hong Kong Foundation



Mr. Chibo TANG

Managing Partner, Gobi Partners



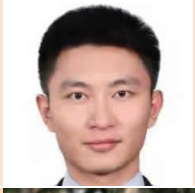
Prof. Lap-chee TSUI

Founding President of Hong Kong Academy of Sciences
President of Victor and William Fung Foundation
Director of Qiushi Academy for Advanced Studies and Master of Residential
College, International Campus of Zhejiang University
Emeritus University Professor, University of Toronto



Prof. Jue WANG

Associate Professor and Deputy Director,
Nanyang Center for Public Administration,
Nanyang Technological University



Dr. Meng YANG

Head of the MGI AI Lab



Dr. Youming ZHANG

Director of Department of Engineering Biology,
Shenzhen Institute of Advanced Technology,
Chinese Academy of Science, Shenzhen, China



Dr. Yefeng ZHENG

Director of Tencent Jarvis Lab

Program Schedule

6 December 2021 (Monday)

08:30 – 09:00	Registration (for in-person participants)	
09:00 – 09:15	Welcome speech Prof. Wei SHYY, JP President of HKUST	
09:15 – 10:00	Keynote Lecture Prof. Harvey F. LODISH Member, Whitehead Institute for Biomedical Research Professor of Biology and Professor of Biological Engineering, Massachusetts Institute of Technology, Cambridge, MA	
10:00 – 10:15	Morning Refreshment & Session Break	
10:10 – 12:45	Thematic Session (TS-1) Artificial Intelligence (AI) Entrepreneurship in Health Care Industry Moderator(s): Prof. Tim Kwang-Ting CHENG Prof. Bert SHI	Thematic Session (TS-2) Synthetic Biology and Bio-Economy Moderator: Prof. King L. CHOW
12:45 – 13:45	Lunch Break	
14:00 – 15:15	Thematic Session (TS-1) Artificial Intelligence (AI) Entrepreneurship in Health Care Industry Moderator(s): Prof. Tim Kwang-Ting CHENG Prof. Bert SHI	Thematic Session (TS-2) Synthetic Biology and Bio-Economy Moderator: Prof. King L. CHOW
15:15 – 15:30	Afternoon Refreshment & Session Break	
15:30 – 16:15	Keynote Lecture Prof. Peretz LAVIE President Emeritus of Israel Institute of Technology	
16:30 – 17:30	Roundtable Discussion Moderator: Prof. Naubahar SHARIF	
17:30 - 17:45	Summary Notes Prof. King L. CHOW	

7 December 2021 (Tuesday)

08:30 – 09:00	Registration (for in-person participants)	
09:00 – 09:45	Keynote Lecture Prof. K. C. CHAN, GBS, JP Adjunct Professor of Finance, HKUST Former Secretary for Financial Services and Treasury, HKSARG	
10:00 – 13:00	Thematic Session (TS-3) A Role of Research Universities in Innovation-led Economic Growth Moderator: Prof. Xun WU	
13:00 - 13:15	Closing Remarks	

Thematic Session - 1

Artificial Intelligence (AI) Entrepreneurship in Health Care Industry

Date:	6 December 2021 (Monday)	Time:	10:10 – 12:45 ; 14:00 – 15:15
Venue:	Seminar Room 2042, 2/F HKUST Jockey Club Institute for Advanced Study (IAS) Lo Ka Chung Building, Lee Shau Kee Campus, The Hong Kong University of Science and Technology		
Co-Chairs:	Prof. Tim CHENG , Dean, School of Engineering, HKUST ; Prof. Bert SHI , Professor, Electronic and Computer Engineering, HKUST		

PROGRAM RUNDOWN

10:10 – 10:15	Prof. Bert SHI	Introduction
10:15 – 10:45	Dr. Ngai-tseung CHEUNG Chief Medical Information Officer, Hospital Authority	The Smart Hospital and Digital Health in the Hospital Authority
10:45 – 11:15	Dr. Le LU Head of Medical AI R&D, Alibaba Researcher (Senior Director), Alibaba DAMO Academy, USA	What is it like working at the world's largest translational hospital as a computer scientist? How the NIH prepared me to collaborate effectively with physicians
11:15 – 11:45	Dr. Yuan NI Deputy Chief Engineer, PingAn Technology	Transform Healthcare by Combining Knowledge Graph and Machine Learning Technologies, Practice by Ping An Group
11:45 – 12:15	Dr. Meng YANG Head of the MGI AI Lab	Self-supervised Learning for Omics
12:15 – 12:45	Dr. Yefeng ZHENG Director of Tencent Jarvis Lab	Opportunities of artificial intelligence in transforming Chinese healthcare: A perspective of Tencent
12:45 – 13:45	Lunch Break	
Panel Discussion		
14:00 – 15:00	Panelists: Dr. Ngai-tseung CHEUNG Dr. Le LU Dr. Guotong XIE Dr. Meng YANG Dr. Yefeng ZHENG Moderator(s): Prof. Tim CHENG / Prof. Bert SHI	
15:00 – 15:15	Wrap up and Recommendation	

Thematic Session – 2

Synthetic Biology and Bio-Economy

Date:	6 December 2021 (Monday)	Time:	10:10 – 12:45 ; 14:00 – 15:15
Venue:	Seminar Room 1038, 1/F HKUST Jockey Club Institute for Advanced Study (IAS) Lo Ka Chung Building, Lee Shau Kee Campus, The Hong Kong University of Science and Technology		
Chair:	Prof. King CHOW , Professor, Division of Life Science, HKUST		

PROGRAM RUNDOWN

10:10 – 10:15	Prof. King CHOW	Introduction
10:15 – 10:40	Prof. François BANEYX Vice Provost for Innovation Director, CoMotion Charles W.H. Matthaei Professor of Chemical Engineering Director, Center for the Science of Synthesis Across Scales, University of Washington	The CoMotion Innovation Hub - Igniting Entrepreneurship at the University of Washington
10:40 – 11:05	Prof. Geoff BALDWIN Professor of Synthetic & Molecular Biology Co-Director, Imperial College Centre for Synthetic Biology Director, EPSRC Centre for Doctoral Training in Bio Design Engineering	The development of Synthetic Biology in the UK as a new discipline at the interface of academia and entrepreneurship
11:05 – 11:30	Prof. Daniel LEE Associate Vice-President and Chief Innovation and Enterprise Officer, Office of Innovation and Enterprise, The Chinese University of Hong Kong	Synthetic Biology in China and GBA
11:30 – 11:55	Dr. Cheuh Loo POH Associate Professor, Department of Biomedical Engineering, the National University of Singapore (NUS), Singapore Co-founder, AdvanceSyn Pte Ltd, Singapore	Synthetic Biology in Singapore
11:55 – 12:20	Mr. Kenny SHUI Assistant Research Director, Head of Economic Development, Our Hong Kong Foundation	Strategic Collaborations between Hong Kong and Shenzhen in Biotechnology – Capitalising opportunities in the Loop for Policy Innovations
12:20 – 12:45	Dr. Youming ZHANG Director of Department of Engineering Biology, Shenzhen Institute of Advanced Technology, Chinese Academy of Science, Shenzhen, China	Synthetic Biology in China - from technology development to applications
12:45 – 13:45	Lunch Break	
<u>Panel Discussion</u>		
14:00 – 15:00	Panelists: Prof. Geoff BALDWIN Prof. Daniel LEE Dr. Cheuh Loo POH Mr. Kenny SHUI Dr. Youming ZHANG Moderator: Prof. King CHOW	
15:00 – 15:15	Wrap up and Recommendation	

Thematic Session – 3

A Role of Research Universities in Innovation-led Economic Growth

Date:	7 December 2021 (Tuesday)	Time:	10:00 – 12:00 ; 12:00 – 13:00
Venue:	Lecture Theater (G/F) HKUST Jockey Club Institute for Advanced Study (IAS) Lo Ka Chung Building, Lee Shau Kee Campus, The Hong Kong University of Science and Technology		
Chair:	Prof. Xun WU , Associate Director (Taught Postgraduate Studies), Interdisciplinary Programs Office, HKUST		

PROGRAM RUNDOWN

10:00 – 10:20	Prof. Koenraad DEBACKERE Executive Director, Leuven Research and Development (LRD), KU Leuven	Leveraging ecosystems to foster knowledge transfer, the case of LRD
10:20 – 10:40	Dr. Shin Cheul KIM Acting Associate Vice-President (Knowledge Transfer), Director of Technology Transfer Center, HKUST	Creating impact from innovation and entrepreneurship development in the University
10:40 – 11:00	Dr. Albert KO Director, Entrepreneurship Initiative Director, Service-Learning, Office of Service-Learning, Lingnan University	Technology for everyone by everyone: Global innovation in a liberal arts context
11:00 – 11:20	Prof. Kazuyuki MOTOHASHI Professor, Research Center of Advanced Science and Technology Head, Department of Advanced Interdisciplinary Studies, Graduate School of Engineering The University of Tokyo	Role of university and local industry in forming entrepreneurship ecosystem in Japan
11:20 – 11:40	Prof. Jue WANG Associate Professor and Deputy Director, NanyangCenter for Public Administration	Academic entrepreneurship and innovation: a Singapore case
<u>Panel Discussion</u>		
12:00 – 12:45	Panelists: Prof. Koenraad DEBACKERE Dr. Shin Cheul KIM Dr. Albert KO Prof. Kazuyuki MOTOHASHI Prof. Jue WANG Moderator: Prof. Xun WU	
12:45 – 13:00	Wrap up and Recommendation	



Abstracts of Keynote Presentations

Prof. Harvey F. LODISH

Founding Member, Whitehead Institute for Biomedical Research
Professor of Biology and Professor of Biological Engineering,
Massachusetts Institute of Technology, Cambridge, MA

Keynote Speech on:
The Boston Biotechnology Ecosystem:
Academic Entrepreneurs, New Technologies, and Building Companies to Treat Disease

Abstract

Continuing developments in universities, hospitals, and research institutes worldwide are enhancing our understanding of the genetic, molecular, and cellular bases of many human diseases, especially of rare diseases that are common in specific regions or ethnic groups. Translating these discoveries into actual drugs, diagnostics, and medical devices requires establishment of for-profit companies.

Kendall Square, adjacent to MIT in Cambridge, is the world's epicenter of biotechnology. There are hundreds of biotechnology companies including many that are started each year, over a dozen of the world's largest pharmaceutical companies, multiple venture capital and patent law firms, and several incubators for start-ups.

Forty years ago it was an industrial wasteland.

Much of the development of this enormous ecosystem was driven by MIT faculty members who have become biotech entrepreneurs, starting small companies often but not always based on recent research from their own laboratories. I'll describe the development of this enormous ecosystem based in part on my own experiences in helping start ten local biotechnology companies, including Genzyme and Millennium and most recently Rubius, a now public Flagship Pioneering company. I will discuss Genzyme's development of enzyme replacement therapies for Gaucher Disease and other lysosome storage diseases. Another focus will be on Rubius' first product, modified red cells to treat certain cancers. I'll also mention several new companies with which I'm working that are developing novel protein and gene therapy technologies.

Technology development, including cell, gene, and nucleic acid therapies and gene editing, continues to drive the establishment of new companies. I will discuss several other Boston-area companies that have become successful by developing drugs to treat specific rare diseases. Some developed nucleic acid-based therapies for diseases such as Duchenne muscular dystrophy and Spinal Muscular Atrophy Type I. Yet others are working with research hospitals to develop gene therapies for diseases such as hemophilia, beta thalassemia, Sickle Cell Disease, and Batten Disease. New types of therapeutics are entering clinical practice, including cell therapies such as insulin-producing islets as replacement cells for diabetics.

Again using the Boston-Cambridge area as example, I will review significant fundamentals for developing successful biotech companies, focusing on the importance of geographical proximity of research universities and hospitals with a cluster of laboratory incubators and venture capital firms.

I will stress the importance of an entrepreneurial faculty. Long-standing policies of MIT and many other top U.S. research universities encourage faculty members to become entrepreneurs. Faculty are given one day per week “Outside Professional Activity.” Faculty can work for not-for-profit organizations, including service on panels for the government or for disease-related organizations. Importantly, faculty can also work for and help start for-profit companies. Faculty members can consult for and own stock in companies but cannot be an operating officer of a company, and clear conflict of interest rules have eliminated many of the abuses of this system in the past. Indeed about half of my faculty colleagues in the MIT Biology and Biological Engineering Departments have started for-profit companies, and many of these have had successful public stock offerings or have been purchased by large pharmaceutical companies. More importantly, many have produced therapeutics or medical devices or diagnostics that have been FDA approved.

Based on my own experiences I’ll discuss several key features to starting successful biotechnology companies. Most important, in my view, is a top Scientific Advisory Board made up of leading faculty members with diverse expertise that cover the company’s research and development focuses. Having experienced biopharmaceutical leaders available to serve on the Board of Directors is important, as well as the availability in the community of experienced individuals who can occupy key roles in the company such as President/ CEO, Chief Scientific Officer, Chief Medical Officer, and Chief Financial Officer. Proprietary and protected intellectual property and experienced patent attorneys are essential, as is having a solid business plan.

I’ll discuss in some detail the ways in which a start-up can obtain initial financial backing by working with experienced independent venture capital companies, the venture arms of patient supported disease-focused not-for-profits, and the venture arms of large pharmaceutical companies. Many of the partners in these VC firms have recent MD or PhD degrees from top universities in the United States or abroad.

A supportive and helpful government and regulatory environment is important, mainly to provide the infrastructure for start-up companies, especially incubator laboratory space.

Otherwise the tasks of starting, supporting, and running a biotech are best left to the private marketplace.

Prof. Peretz LAVIE

Professor Emeritus of Israel Institute of Technology

Keynote Speech on:

21st Century Economic Growth – the Role of Universities

Abstract

The 21st century will be recorded in human history as the century in which knowledge and innovation have taken the place of natural resources to determine the resilience and international status of a country, as well as the quality and standards of living of its citizens.

To contribute to knowledge based economy universities should have essential ingredients related to their mission, research and education. Universities' mission should be clearly defined with a clear statement that besides producing knowledge the university also provides service to the country and humanity. In order to fulfill the mission of service, universities should consider basic, or curiosity driven research, and applied, or needs oriented research, as the two sides of the same coin. Both types of research should be considered equally important. Education should be wide and deep, providing students not only with basic knowledge and tools to solve present and future problems, but also providing them leadership skills that are essential for their future careers. Furthermore, since scientific research today is complex, multidisciplinary, tremendously expensive, and is done at a faster rate than ever before, universities should be encouraged to adopt a policy of close cooperation with industry in order to foster a knowledge-based economy.

Prof. K C CHAN, GBS, JP

Adjunct Professor of Finance, The Hong Kong University of Science and Technology
Former Secretary for Financial Services and the Treasury, HKSARG

Keynote Speech on:

Building Hong Kong into a Technology Hub: Starting with a New Mindset

Abstract

Hong Kong has set an ambitious goal of becoming a technology and innovation hub, building on the strength of its academic institutions and the strategic importance of the Greater Bay Area. There exist many challenges, chiefly among them a mindset bred by its success as a finance hub which emphasizes capturing market opportunities rather than building new industries. A new mindset is needed for Hong Kong to set the vision and come up with the plan. Government will have to play an important role, in strategy setting and driving academic and industry collaboration, in Hong Kong as well as in the Greater Bay Area.



**Abstract of
Roundtable Discussion**

Prof. Naubahar SHARIF

Acting Head and Professor, Division of Public Policy
Professor, Division of Integrative Systems and Design
The Hong Kong University of Science and Technology

Roundtable Discussion

Abstract

Learning about the progress in AI application and influence in health care sector and the requirement to nurture a robust bio-economy, where technological innovation can serve as the driving force, a strategic partnership between stakeholders and key players, coupled with appropriate policy, would be important to create a supportive environment to make it flourish in the Greater Bay Area, combining existing strength and expertise in this region.

In this round table discussion, we aim to bring in thought leaders, policy makers, visionaries to help us highlight the critical ingredients that collective effort from all parties need to attend to and work on. It would elude to action items to be taken in short, medium and long term, so that academics, government, industrial and business leaders can join force to craft a holistic framework to develop a healthy supportive ecosystem along the time line of the next 5 to 10 years to nurture a robust innovative community, leading the development of the region and the nation.



**Abstracts of
Thematic Sessions**

Thematic Session – 1

Artificial Intelligence (AI) Entrepreneurship in Health Care Industry

Co-Chairs:

Prof. Tim CHENG, Dean, School of Engineering, HKUST ;
Prof. Bert SHI, Professor, Electronic and Computer Engineering, HKUST

Abstract

Market estimates for Artificial Intelligence (AI) in healthcare range from USD 5 to 8 billion (2020). Moving forward, growth is expected to compound at projected rates of around 40%. North America now accounts for the largest share of the market, but the Asia-Pacific share is expected to grow at the largest rate moving forward. This growth is driven by the need to lower costs and improve care quality and health outcomes. It is enabled by the increasing volume of digitized healthcare data, improvements in AI technology enabling developers to handle the highly complex resulting datasets, and declines in hardware costs. The outbreak of CoViD-19 further accelerated this process. Nonetheless, the healthcare market is very complex, with many involved parties: patients, families, caregivers, hospitals, technology companies, non-profits, academia and the government. Although the promise is great, the need to coordinate and harmonize among these parties may hamper growth. To examine the future of AI Entrepreneurship in Healthcare, this thematic session features a distinguished panel of speakers coming from both the hospital sector and industry to outline their experiences and plans in applying AI to healthcare and to discuss their expectations, hopes and concerns for the future.

Abstracts of respective talks:



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https://ust.az1.qualtrics.com/jfe/form/SV_6KhuVYx4YAd5Wcu

to view / download abstracts of respective talks.

Thematic Session – 2

Synthetic Biology and Bio-Economy

Chair:

Prof. King CHOW, Professor, Division of Life Science, HKUST

Abstract

Since the molecular understanding of our genetic makeup was established, biological science has gone through rapid advancement entailing a myriad of new technological breakthrough. Recombinant DNA technology, genome projects, molecular regulatory tools, and genome editing have offered new insight to our understanding of the natural world. At the same time, these technologies have practically create opportunities to improve human health by raising agricultural productivity, offering fast and precise diagnosis or therapeutic solution in medicine, providing possible venues for environmental remediation and new energy resources. With all the tools available, we have reached a stage that is mature to plan for detailed engineering of biology to make bigger steps transforming the society and economy if they can be strategically deployed. In this final frontier, is our government/industry/academia triad partnership ready to take on this bold step? In this session, we will learn from experienced practitioners in different countries, each of which takes on a slightly different path with unique elements that hinder or facilitate their progress in the past decades. From the sharing, we wish to gather insight informing us what would fit the unique setting at this region so that a bioeconomy can be well integrated as an engine for GBA development in the next decade.

Abstracts of respective talks:



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to view / download abstracts of respective talks.

Thematic Session – 3

Role of Research Universities in Innovation-led Economic Growth

Chair:

Prof. Xun WU, Associate Director (Taught Postgraduate Studies),
Interdisciplinary Programs Office, HKUST

Abstract

Research universities are among the most important strategic assets from the perspective of the innovation and technology not only because of their global standing and network, but also due to the fact that such universities undertake significant share of R&D expenditure at local, regional and national levels. Research universities can be a catalyst for the development of the global innovation and technology hubs through technology transfer, university-industry collaboration, and entrepreneurial education. This panel brings together senior managers and experts in technology transfer from leading research universities to share their experience in enhancing the roles of public research universities in the development of global innovation and technology hubs. The panel is expected to draw lessons in the context of accelerating the development of the technology and innovation hub in the Greater Bay Area (GBA).

Abstracts of respective talks:



Please scan the QR code or click:

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to view / download abstracts of respective talks.



Conference Logistics

General Information





Inquiries

General inquiry: apciece@ust.hk
 Address: Organizing Committee of APCIEE 2021
 Room 4611 (via Lift 31-32), 4/F,
 The Hong Kong Jockey Club Enterprise Centre,
 The Hong Kong University of Science and Technology,
 Clear Water Bay, Kowloon, Hong Kong

Lunch Arrangement

There are 20 restaurants in the campus. Participants are welcome to having lunch at the campus during the lunch break. For restaurant details, please refer to CSO website: <https://cso.ust.hk/locations/restaurants>.

Bad Weather Arrangement

Weather Condition	Arrangement
 Amber Rainstorm (Amber 黃) <i>or</i>	The Conference remains open
 Red Rainstorm (Red 紅) Warning Signal	
Black Rainstorm Warning Signal (Black 黑) 	If Black Rainstorm Warning Signal is announced during the Conference, the Conference venue will remain opened. Participants will be encouraged to stay in the venue for their own safety.
Typhoon Signal No.1 (T1) <i>or</i> Typhoon Signal No. 3 (L3)	The Conference remains open
 Typhoon Signal No. 8 () <i>or</i> above <i>or</i> the notice of extreme conditions	<ul style="list-style-type: none"> If a Pre-No. 8 or above Typhoon Signal is issued at or before 7:00 a.m. on the conference day, the Conference will be SUSPENDED Only if the Typhoon Signal No. 8 or above is cancelled or Black Rainstorm Warning Signal is lowered at or before 11:00 a.m., the Conference will be RESUMED at 2:30 p.m. If a Pre-No. 8 Special Announcement is issued during the conference, the Conference will be closed in 2 hours. Participants will be requested to leave the Conference.

Notes:

- Participants should pay attention to the announcements made via the radio, television or mobile application "GovHK Notifications" when tropical cyclones are affecting Hong Kong. Other than the above-mentioned situation, registration starts at 8:30 a.m. at the Conference Venue.
- During the Conference, the Organizer will make announcement at the venue to inform participants of the arrangement.

Precautionary Measures of COVID-19

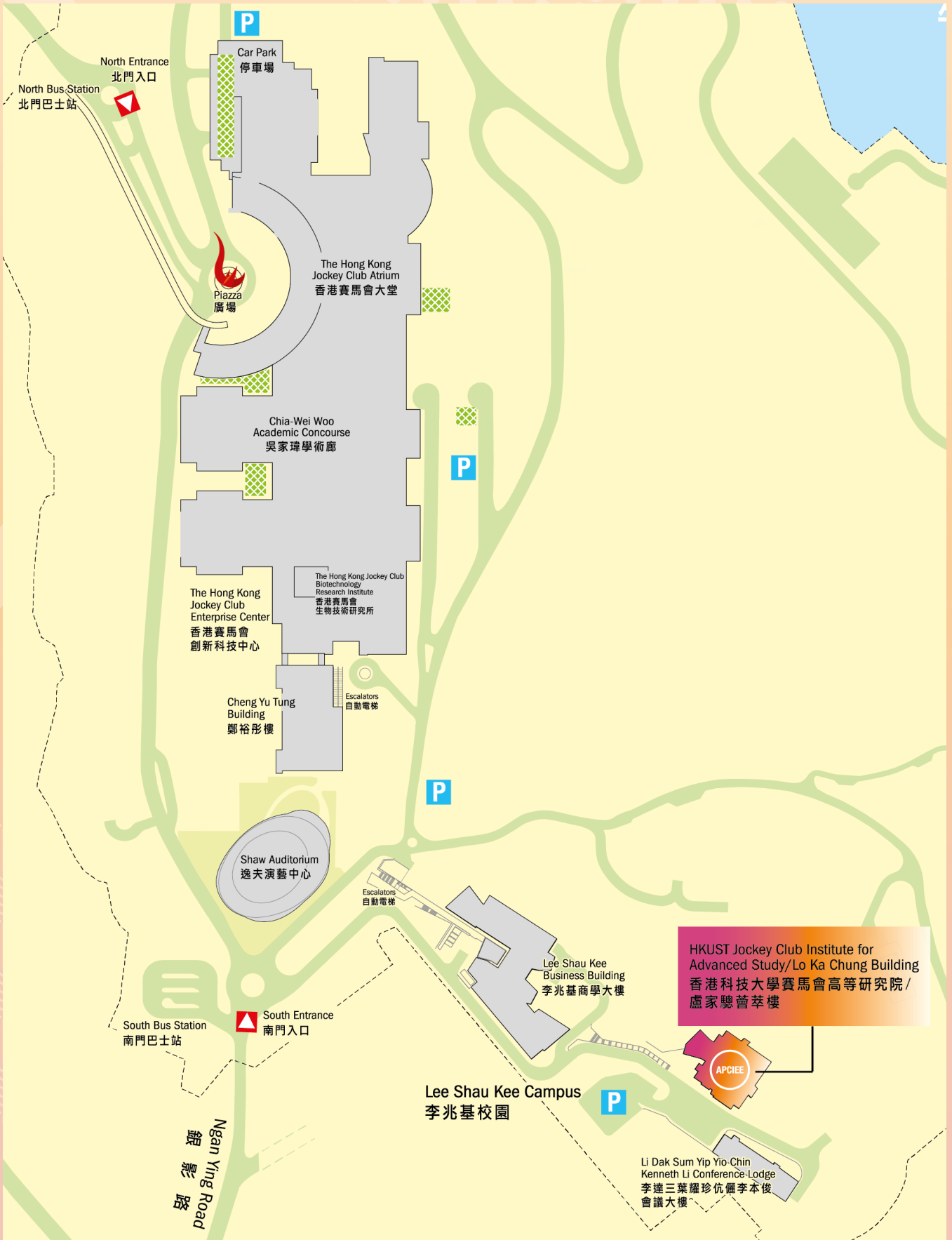
In view of the Coronavirus (COVID-19) outbreak, precautionary measures will be executed strictly at the conference venue to help ensure public safety. All visitors and staff will be required to wear a surgical mask all the time at the conference venue. Body temperature check will be conducted at the entrance upon arrival, and social-distancing measures (at least 1.5 metres between groups of 4 persons) will be conducted at the conference venue.

To ensure the safety of our staff and conference participants, an attendee is not allowed to attend the conference in-person if he / she:

- has stayed at same building with COVID-19 case found in past 21 days
- has been in close contact with someone who is a confirmed COVID-19 case in past 21 days
- is currently under or has been in close contact with anyone who is currently under HKSAR Government's compulsory quarantine order
- is required or has been in close contact with anyone who is required by the HKSAR Government to undergo a COVID-19 testing and awaiting the test result
- has respiratory or COVID-19 symptoms, such as fever, dry cough and shortness of breath

Safety and health of our participants is our top priority. If the government announced the latest regulations, we will follow the latest regulations and shifted the conference to online mode. Short period notice may be applied. Thank you for your understanding.

Conference Site Map



Transportation

- **By Public Transport:**

Please refer to HKUST CSO website: <https://cso.ust.hk/tran/pt>

N.B.: Campus security may check your identity card at Entrance Gates.

- **Driving:**

The nearest public car park is located at Ngan Ying Road (銀影路停車場) . No pre-registration is allowed, and the parking area are first come first served.



Contact Us

Website: <https://apciecee.hkust.edu.hk>

Email : APCIEE@ust.hk

Address : Room 4611 (via Lift 31-32), 4/F, The Hong Kong Jockey Club Enterprise Centre,
The Hong Kong University of Science and Technology, Clear Water Bay,
Kowloon, Hong Kong



Website