



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

Date: 2 December 2023 (Sat)

Time: 1:00pm - 5:30pm (Registration: 12:30pm)

Venue: Multi-function room 2-3, INNO2,
Building 17W, Hong Kong Science Park

Speakers



PROF. ANDREAS R. BAUSCH

Professor for Cellular Biophysics, Founding Director for Center of Functional Protein Assemblies
Founding Director for Center of Organoid Systems, Technical University of Munich



PROF. BARBARA CHAN

Programmer Leader, ABIC
Professor of the Institute for Tissue Engineering and Regenerative Medicine, CUHK



DR. MICHAEL CHAN

Principal Investigator, C2i
Associate Professor, School of Public Health, HKU



DR. LINDA HUANG

Clinical Science Manager
Invitrocue (Hong Kong) Limited



DR. VINCENT CHI-HANG LUI

Co-founder & Chief Scientific Officer, GLOAS
Associate Professor, Department of Surgery, School of Clinical Medicine, HKU



MR. VINCENT MA

Chief Executive Officer,
Hong Kong-Shenzhen Innovation and Technology Park Limited



PROF. ANDERSON SHUM

Centre Director, ABIC
Professor, Department of Mechanical Engineering, Faculty of Engineering, HKU



PROF. PAUL TAM, JP

Co-founder & CEO, GLOAS
Chair Professor & VP,
Macau University of Science and Technology



MR. ALBERT WONG

Chief Executive Officer,
HKSTP



Prof. KWOK YUNG YUEN, GBS JP

Managing Director, CVVT
Chair Professor, Department of Microbiology, HKU



DR. JANE JIE ZHOU

Principal Investigator, CVVT
Assistant Professor, Department of Microbiology, HKU

Organizer:



Advanced Biomedical
Instrumentation Centre
先進生物醫學儀器中心

Co-organizer:



Supporting Organizations:





From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

Welcome Message



IR. PROF. ANDERSON HO CHEUNG SHUM

Centre Director,
Advanced Biomedical Instrumentation Centre (ABIC)
Professor, Department of Mechanical Engineering,
Faculty of Engineering, HKU

Dear Members, Partners, and Friends,

As ABIC Director, it is my honor and privilege to welcome you to the symposium themed “From Bench to Bedside: Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation”, hosted by ABIC and co-organized by the Hong Kong Science and Technology Park.

The symposium will highlight the remarkable biomedical research advancements in Organoids, Organs-on-Chips, disease modeling, and related biomedical instrumentation, as well as the crucial role of the concerted effort from researchers, industry professionals, and policymakers.

We hope that this event will inspire new ideas and collaborations in organoids. We also extend our gratitude to the supporting organizations including BiomOrgan, C2i, C2i Tech, CVVT, GLOAS, HSITP, and Invitrocue.



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

Date: Dec 2, 2023 (SAT)

Venue: Multi-function room 2-3,
Inno2, Building 17W,
Hong Kong Science Park

Time: 1:00pm – 5:30pm

RUNDOWN

12:30 - 13:00	Registration
13:00 - 13:10	Opening Ceremony - Welcoming Remarks Prof. Anderson Shum Mr. Albert Wong
13:10 - 13:15	Photo Session
13:15 - 13:30	Tackling emerging infectious diseases: from SARS to COVID Prof Kwok Yung Yuen
13:30 - 13:45	Organoids in Droplets Prof Andreas Bausch
13:45 - 14:00	Membrane-based Microfluidics for Organoid Applications Prof Anderson Shum
14:00 - 14:15	Organoids: opportunities and challenges in disease modelling and therapeutics development Prof Paul Tam
14:15 - 14:50	Panel Discussion Accelerating the Translation of Organoid-Based Innovations: Overcoming Challenges and Maximizing Impact Prof Kwok Yung Yuen, GBS JP Prof Andreas Bausch Prof Anderson Shum Prof Paul Tam, JP Prof Barbara Chan (Moderator)



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation



Advanced Biomedical Instrumentation Centre

先進生物醫學儀器中心

RUNDOWN

- | | |
|----------------------|---|
| 14:50 - 15:20 | Coffee Break and Networking Session |
| 15:20 - 15:35 | Fostering Biomedical ecosystem at the Loop
Mr Vincent Ma |
| 15:35 - 15:50 | Organoids and Infectious Diseases
Dr Michael Chan |
| 15:50 - 16:05 | 3D multi-cellular tumoroids and organoids for drug screening
Prof Barbara Chan |
| 16:05 - 16:20 | Hands Together to Unlock the Power of Organoid Technology
Dr Jane Zhou |
| 16:20 - 16:35 | Onco-PDO™ – Integration of Patient-derived In Vitro Cell Model Into Comprehensive Solutions for Personalised Cancer Treatment
Dr Linda Huang |
| 16:35 - 16:50 | Organoid technology in disease modelling and drug development
Dr Vincent Lui |
| 16:50 - 17:25 | Panel Discussion
Bridging the Gap: Commercializing Organoid-Based Innovations and Biomedical Instrumentation for Clinical Translation

Dr Michael Chan
Dr Jane Zhou
Dr Linda Huang
Dr Vincent Lui
Prof Anderson Shum (Moderator) |
| 17:25 - 17:30 | Concluding Session - Concluding Remarks
Prof. Anderson Shum

End of the symposium |



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation



SPEAKERS

PROF. ANDREAS R. BAUSCH	P.5
PROF. BARBARA CHAN	P.6
DR. MICHAEL CHAN	P.7
DR. LINDA HUANG	P.8
DR. VINCENT CHI-HANG LUI	P.9
MR. VINCENT MA	P.10
IR. PROF. ANDERSON H.C. SHUM	P.11
PROF. PAUL TAM, JP	P.12
MR. ALBERT WONG	P.13
PROF. KWOK YUNG YUEN, GBS JP	P.14
DR. JANE JIE ZHOU	P.15

(In alphabetical order of last name)



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation



SPEAKER



PROF. ANDREAS R. BAUSCH

Professor for Cellular Biophysics,
Founding Director for Center of Functional Protein Assemblies,
Founding Director for Center of Organoid Systems,
Technical University of Munich

Prof. Bausch targets a quantitative understanding of the mechanical properties of cells, active matter and the mechanisms of self-organization in molecular and organoid systems. After his Ph.D. in physics at TUM and his postdoctoral stay at Harvard University he accepted the Chair position at the Technical University in 2008.

He received an ERC Starting, Advanced Grant and Synergy Grant. He is founder of two start up companies and spin offs. He is founding director of two research buildings and centers: the Center of Functional Protein Assemblies (2014) and Center for Organoid Systems (2021).



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

SPEAKER



PROF. BARBARA CHAN

Programmer Leader, ABIC / Professor of the Institute for Tissue Engineering and Regenerative Medicine, CUHK

Prof. Chan obtained her Bachelor degree in Biochemistry and PhD degree in Surgical Science from the Chinese University of Hong Kong. She received Postdoctoral Fellowship in Laser Medicine from the Massachusetts General Hospital in US. Prof. Chan served the Biomedical Engineering programme of the University of Hong Kong since 2003. She joined the School of Biomedical Sciences, Department of Biomedical Engineering, and Institute of Tissue Engineering and Regenerative Medicine, of the Chinese University of Hong Kong since 2023.

Prof. Chan established the Tissue Engineering Laboratory with the vision to improve the quality of life in patients through bioengineering biomaterials- and stem cell-based tissues for personalized therapies. Her research interests centered around tissue engineering and regenerative medicine, natural and biomimetic biomaterials, multi-cellular organoids and tumoroids, mechano-regulation, multiphoton microfabrication and micropatterning, cell niche engineering and laser medicine.

Prof. Chan obtained her professional membership (Biomedical Engineering) and the status of Chartered Engineer and Chartered Scientist from the Institute of Materials, Minerals and Mining (IMMM) since 2015. She has been a registered authorized person (AP) for advanced therapeutic products (ATPs) in Hong Kong since 2020. She has served the professional community in many areas, such as being an Associate Editor in Biomaterials since 2017, a panel member for the European Research Council since 2022, a member of the Task Force on Regulations of ATPs in Hong Kong. On knowledge exchange, together with her business partner, PhD students and Postdocs, she has co-founded a technology startup company in developing personalized tissue engineering therapies.



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

SPEAKER



DR. MICHAEL CHAN

Principal Investigator, C2i
Associate Professor, School of Public Health,
HKU

Dr. Michael Chan received his PhD degree in Medical Science from the Chinese University of Hong Kong, followed by the post-doctoral fellowships in influenza virus and infectious diseases at the University of Hong Kong in 2004.

Dr. Chan's main research interests are the virus-host interaction and pathogenesis of influenza virus and coronavirus (SARS-CoV-2, SARS-CoV and MERS-CoV) using ex vivo human respiratory explant cultures and in vitro well-differentiated human respiratory epithelial cells. Major focuses of his current work are: (1) Risk assessment of influenza virus and coronavirus using ex vivo explants and in vitro respiratory epithelial cells model. (2) Mechanism of lung injury upon severe influenza virus and coronavirus infection (3) Human nasal, nasopharyngeal, airway and distal lung organoids development and risk assessment for emerging infectious diseases (4) Role of human distal airway stem cells in respiratory epithelium regeneration upon influenza H5N1 virus, SARS-CoV-2, MERS-CoV and SARS-CoV infection. (5) Role of mesenchymal stromal cells and exosomes/microvesicles in reverse influenza H5N1 associated acute lung injury (6) Novel therapeutic options for severe human influenza virus and coronavirus infection, e.g. COVID-19.

Dr. Chan is ranked by Essential Science Indicator (ESI) as a "top 1% most-cited international scientist" in the world since 2009. He has published over 120 manuscripts; many of them are in high impact journals including Lancet Respiratory Medicine, Nature, Nature Medicine, Nature Microbiology, PNAS, European Respiratory Journal, Clinical Infectious Diseases, Emerging Infectious Diseases, PLoS Pathogens, eBioMedicine, Journal of Virology and Gastroenterology which are among the top peer-reviewed scientific journals.

Dr. Chan has received research funding as a Principal Investigator from various local and overseas research organizations, including NIAID-CEIRS (NIH, USA), Theme-based Research Scheme, Area of Excellence Scheme and GRF (RGC, Hong Kong), Health@InnoHK and ITF grants (ITC, Hong Kong), HMRP and RFCID (Hong Kong). Since 2005, Dr. Chan has secured research funding with a total amount of over HK\$ 120 million. In addition, he has trained and currently training more than 20 postgraduate research students. Dr. Chan has worked as the visiting scientists in the Centre for Regenerative Studies, Brigham and Women's Hospital and Harvard Stem Cell Institute, Boston Children Hospital, Harvard Medical School and the Cardiovascular Research Institute, University of California, San Francisco.



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SPEAKER



DR. LINDA HUANG

Clinical Science Manager
Invitrocue (Hong Kong) Limited

Dr Huang joined Invitrocue in Aug 2019 and has been the pioneer in the set-up of Invitrocue lab in Hong Kong and the Onco-PDOTM (oncology patient-derived tumor organoid) service. Leveraged on her strong technical and scientific knowledge, Dr Huang oversees R&D and provides leadership in delivering quality services to all our clients from clinical sectors, research institutes and pharmaceutical industries. She leads the scientific and clinical discussion with PIs and KOLs to advance the translation of PDO technology for both preclinical and clinical applications.

Dr Huang holds a PhD in Pathology and Bachelor of Medicine degree from China. She has been a visiting Research Fellow in the University of Western Australia where she conducted her PhD study on bone tumors. Prior to Invitrocue, she had 15+ years of experience in translational medical research in the Chinese University of Hong Kong with a good track record of research grants and publications, and then 6 years of hospital service in Prince of Wales Hospital involving in clinical operation of Skin Bank to provide allograft, xenograft and cultured epithelial autograft therapy for burns.



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SPEAKER



DR. VINCENT CHI-HANG LUI

Co-founder & Chief Scientific Officer, GLOAS
Associate Professor, Department of Surgery,
School of Clinical Medicine, HKU

My academic research focuses on the patho-mechanistic study of congenital newborn diseases. Using multiple platforms including human and mouse liver/intestinal/lung organoids, iPSCs, single cell and bulk RNA sequencing, Next Generation Sequencing; transgenic and knockout mice, CRISPR/Cas9 gene knockout in zebrafish, human genetics, mouse models of human congenital diseases to identify molecular patho-mechanisms of a number of congenital disorders including Biliary Atresia (BA), Hirschsprung's Disease (HSCR), Anorectal Malformation Syndrome (ARM), Congenital Pulmonary Airway Malformation Syndrome (CPAM).

GLOAS Limited is a biotechnology company co-founded by Prof. Paul Tam, Dr. Vincent Lui and Dr. Thomas Leon from The University of Hong Kong. We focus on the research and development of stem cell and organoid technology, and have successfully constructed the world's first liver organoid model from patients with BA.

The goal of GLOAS Limited is to promote technological progress in the fields of drug development, toxicity screening, disease model building and cell regeneration therapy. We provide cutting-edge technical solutions to various types of companies and seek cooperation with the scientific research community and industry, hoping to bring new breakthroughs in the fields of scientific research and drug development. We provide high-quality research platforms for drug screening and pharmacology and toxicology experiments.



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SPEAKER



MR. VINCENT MA

Chief Executive Officer
Hong Kong-Shenzhen Innovation and Technology Park Limited

Mr. Ma is a veteran with over 30 years of experience in the Information and Communication Technology (ICT) industry. Mr. Ma worked for Wharf T&T for over 20 years. In 2006, Mr. Ma was appointed as the President and then the Chief Executive Officer of Wharf T&T. Under his leadership, Wharf T&T became one of the most successful and highly profitable ICT service providers with an operation of over 1,800 staff, serving over 50,000 business customers, and attained an annual turnover of \$2 billion and a market valuation exceeding \$10 billion.

Mr. Ma also acted as the Chief Digital Officer of Sun Hung Kai Properties, one of the largest property developers in HK. During his service, he set up a new Digital Office driving digital transformation and big data strategies across the diverse business portfolio of the Group. Being a true believer of customer centricity and operation excellence, Vincent has left footprints of success and tangible achievement in each place he ventured.



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SPEAKER



IR. PROF. ANDERSON H.C. SHUM

Centre Director, Advanced Biomedical Instrumentation Centre
Professor, Department of Mechanical Engineering,
Faculty of Engineering, HKU

Ir Prof. Anderson Ho Cheung Shum received his B.S.E. degree, summa cum laude, in Chemical Engineering from Princeton University, S.M. and Ph.D. in applied Physics from Harvard University. He is currently a Professor in the Department of Mechanical Engineering and a core member in the Biomedical Engineering Programme at the University of Hong Kong (HKU). He is currently serving as Associate Vice President (Research and Innovation) at HKU.

His research interests include emulsions, biomicrofluidics, biomedical engineering and soft matter. Prof. Shum received HKU Outstanding Researcher Award in 2022, Rising Start Award by Ton Duc Thang University (Vietnam), NSFC Excellent Young Scientist Fund (優青(港澳)/优青(港澳)) in 2019, and Young Scientists Award in Microsystems and Nanoengineering Summit 2019.

First, in Hong Kong, Prof. Shum has been proudly selected as Global YoungAcademy Member since 2021. He was also selected to join the Croucher Senior Research as a fellow in 2020, Young Academy of Sciences of Hong Kong as a president in 2021 and founding member in 2018, and the Royal Society of Chemistry as a fellow in 2017. He is a top 1% scholar by Essential Science Indicators in 2018. He serves as an associate editor for Biomicrofluidics (AIP), editorial board member for Scientific Reports (Springer Nature) and an editorial advisory board member for Lab-on-a-Chip (RSC).



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SPEAKER



PROF. PAUL TAM, JP

Co-founder & CEO
Gut Liver Organoid Applied Sciences
(GLOAS) Limited
Chair Professor & VP, Macau University of
Science and Technology

Professor Paul Kwong Hang TAM, JP; MBBS(HK); ChM(Liv); FRCS(Eng, Edin, Glas, and Ire); FRCPC(H); FHKAM (Surgery); HKAS member, is a surgeon, scientist, educator and university leader. He is Chair Professor and Vice-President of the Macau University of Science and Technology, and Emeritus Professor and Honorary Clinical Professor of the University of Hong Kong.

Professor Tam has special interests in minimal invasive surgery, genetics and regenerative medicine of birth defects especially Hirschsprung's disease and biliary atresia. He serves on many international professional associations and was President of the Pacific Association of Paediatric Surgeons (2008-2009). He has pioneered the use of human patients' gut tissue-derived and patients' iPSC-derived organoids in the patho-mechanistic study and treatment development for the Hirschsprung's disease and biliary atresia. He has received numerous awards including the BAPS (British Association of Paediatric Surgeons) Prize, Honorary Fellowship of the American Surgical Association, the 2017 Denis Browne Gold Medal- the highest award of the British Association of Paediatric Surgeons, the 2020 Rehbein Medal by the European Paediatric Surgeons' Association and membership of the Hong Kong Academy of Sciences.

Together with colleagues, he co-founded a biotech company GLOAS Limited, which focuses on the research and development of stem cell and organoid technology, with the aim to promote technological progress in the fields of drug development, toxicity screening, disease model building and cell regeneration therapy. He was member of Board of Directors of the Hong Kong Science and Technology Parks Corporation (2011-2017), SAB member of Bactiguard AB, Sweden (2015-2017), Scientific Co-founder of Xellera Therapeutics Ltd, and Consultant of BlueRock Therapeutics LT, USA (2019-2021) and Rhegen Biotechnology Co. Ltd PRC (2022-2024).



From Bench to Bedside

Symposium on Research Commercialization of Organoid-Based Innovations and Biomedical Instrumentation

SPEAKER



MR. ALBERT WONG

Chief Executive Officer, HKSTP

Mr. Albert Wong is leading HKSTP on a mission to support tech startups and enterprises on their journey for innovation and growth. He and his team are focusing on nurturing talent, entrepreneurship, connections and commercialising R&D into successful innovation with impact. As CEO of HKSTP since 2016, he has led his team growing HKSTP into Hong Kong's home for unicorns and the city's largest R&D hub with over 11,000 research professionals and 1,100 tech companies.

Albert has 30-plus years of commercial, industrial and leadership experience through roles with various multinationals that have provided him with deep China and Asia-Pacific insight, plus critical understanding of building companies and investment networks, and solving market needs. Prior to HKSTP, he spent 15 years in total with GE at its US headquarters, Asia-Pacific and China. He served as CEO, GE Oil & Gas China, as well as CEO, GE Industrial Solutions Asia Pacific – where he was responsible for M&A, Business Development, Product Management and Business Operations. Prior to GE, he held management and engineering roles at PerkinElmer, Emerson, Caterpillar and Schlumberger.

Albert holds an Engineering Degree from the University of Hong Kong and an MBA from the Chinese University of Hong Kong. Outside of work, he actively contributes to the community. He is a board member of the Hong Kong Sports Institute. An avid runner, he regularly takes part in marathons around the world.



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SPEAKER



PROF. KWOK YUNG YUEN, GBS JP

Managing Director, CVVT
Chair Professor, Department of
Microbiology, HKU

Professor Yuen Kwok Yung is the Chair in the Department of Microbiology and Henry Fok Professor of Infectious Diseases at the University of Hong Kong, and the managing director of Centre for Virology, Vaccinology, and Therapeutics.

Professor Yuen has discovered over 100 novel species of virus, bacteria, fungi and parasites, many of which are responsible for emerging infectious diseases. In 2003, he led his team in the discovery of human SARS coronavirus, then the bat SARS related coronavirus and subsequently the 2019 human SARS coronavirus 2 (SARS-CoV-2) which was the cause of COVID-19 pandemic.

During the COVID-19 outbreak, Professor Yuen was the first in the world to provide evidence of person-to-person transmission within family clusters and the possibility of reinfection. His discoveries and expertise have been referenced by governments and healthcare policy makers internationally as they responded to the spread of the global pandemic.

Professor Yuen is a qualified specialist in clinical microbiology, internal medicine and surgery. He is also academician of the Chinese Academy of Engineering (Basic Medicine) and the American Academy of Microbiology. He was awarded the Future Science Prize in 2021. The HKSAR government has awarded him a Silver and Gold Bauhinia Star for his work on microbial hunting and emerging infections.



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SPEAKER



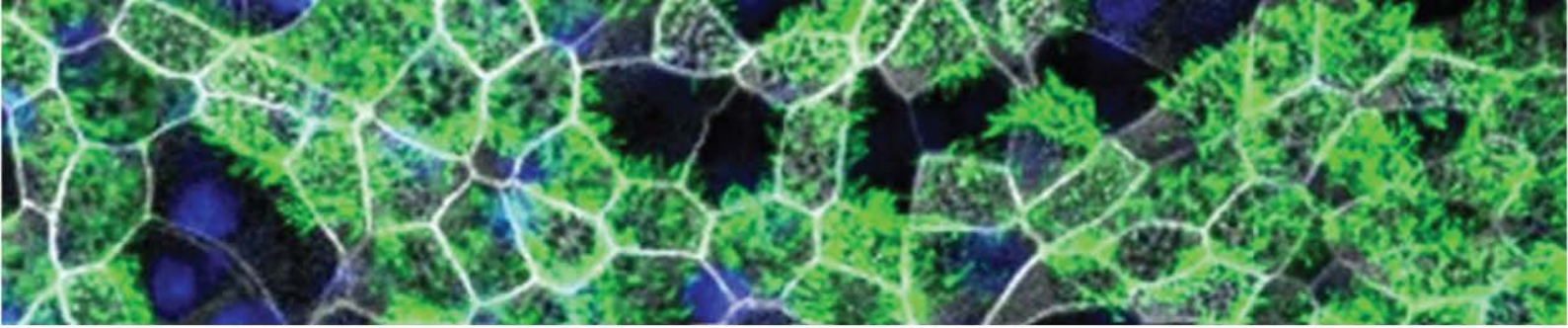
DR. JANE JIE ZHOU

Principal Investigator, CVVT
Assistant Professor, Department of
Microbiology, HKU

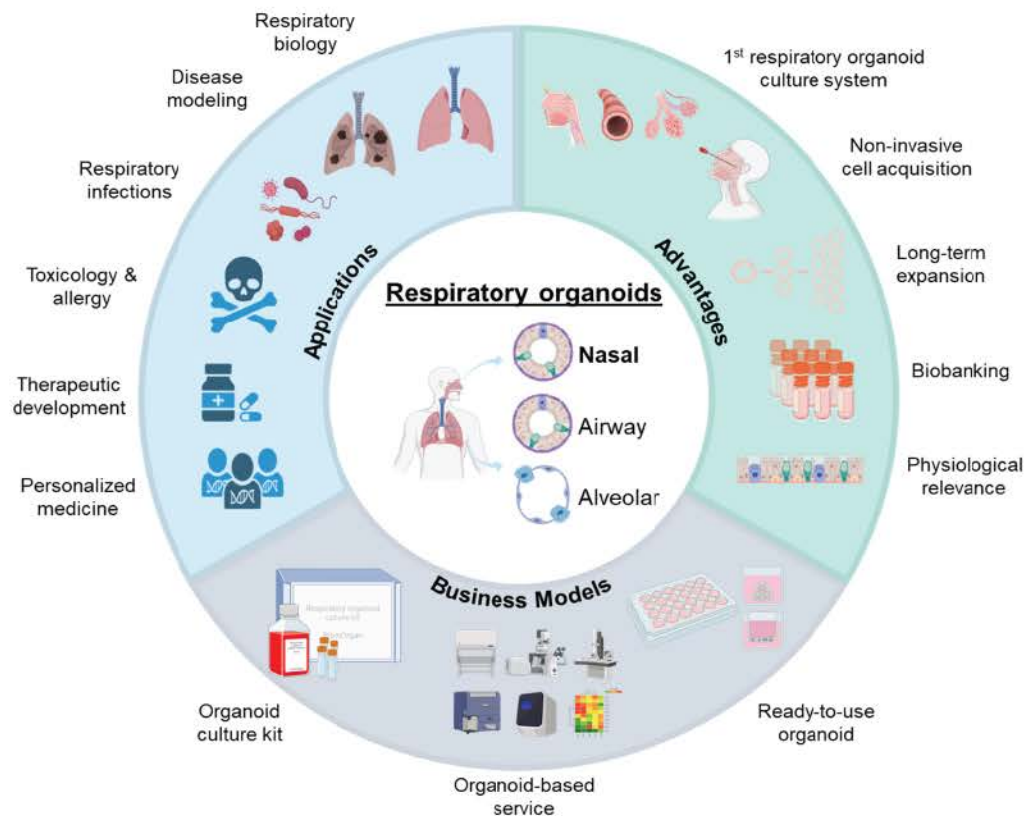
Dr. Jie Zhou's research interests primarily focus on the establishment of organoids for studying virus-host interactions. In collaboration with Prof KY Yuen and Prof Hans Clevers, her team has achieved significant milestones in this field, including the establishment of the first adult stem cell-derived respiratory organoid culture system and the first bat intestinal organoids. These state-of-the-art organoids have been recognized and awarded a gold medal in the 2023 48th International Exhibition of Inventions Geneva. These organoids provide optimal experimental and preclinical models for diverse biomedical, translational and pharmaceutical applications, including but not limited to disease modeling, drug screening, and personalized medicine.

Dr. Zhou earned her PhD in the Department of Microbiology HKU in 2007. Following her postdoctoral training at UCSF, she joined the department in 2009. Throughout her research career, she has published over 100 research papers more than 8000 citations. Her significant contributions have also earned her recognition as a Clarivate Analytics Essential Science Indicators (ESI) Top 1% highly cited Scholar since 2021.

BiomOrgan Limited, founded in 2021 by Dr Zhou, is dedicated to transforming its world-leading technology into first-of-class organoid products and organoid-based services and serving both academia and industry.



Pathfinder in Respiratory Organoid Technology



BiomOrgan aims to develop proprietary respiratory organoid technology and realize the great potential of these leading-edge respiratory organoids for biomedical and pharmaceutical applications.



Contact us: Unit 208-213, 2/F, Building 15W, Hong Kong Science Park, Pak Shek Kok. N.T.



Centre for
Immunology & Infection
免疫與感染研究中心



Centre for Immunology & Infection

Using novel technology platforms for biomarker discovery and the development of new vaccine and therapeutic strategies.

- ✓ C2i is composed of an international team that leverages a highly multi-disciplinary expertise
- ✓ 1,000m² facilities including state-of-the-art laboratories, an advanced insectarium unique in Hong Kong, and a dedicated research clinic established for cohort recruitment
- ✓ Fostering innovation and evolving in the multidisciplinary environment offered by Science Park (HKSTP)
- ✓ The most advanced equipment and technologies supporting cutting-edge research to push the boundaries and drive groundbreaking discoveries

Healthy Human Global Project - Hong Kong



C2i is the fruit of a long-standing partnership of more than 20 years between the **LKS Faculty of Medicine of the University of Hong Kong** and the **Institut Pasteur**, two major institutions combining their expertise to establish this centre of excellence.

Novel Vaccine Platforms for Influenza



Our work is centered around four major research programs to face public health challenges and make Hong Kong a global center of excellence for precision medicine population strategies and innovative interventions targeting emerging infectious diseases.

Mosquito-borne Viruses Epidemiology, Pathogenesis and Interventions



Novel Platform of Human Respiratory Tract



C2iTech

SPIN OFF COMPANY





Centre for Virology,
Vaccinology & Therapeutics
病毒與疫苗研究中心

ABOUT US

The Centre for Virology, Vaccinology, and Therapeutics (CVVT) was established in collaboration with the Department of Microbiology of the University of Hong Kong in 2020 at the Hong Kong Science and Technology Park. It is part of the Health@InnoHK initiatives, funded by the Innovation and Technology Commission (ITC), with a mission to advance knowledge and translate research discoveries into practical applications for the control and prevention of infectious diseases. CVVT serves as a central hub for bridging the gap between impactful basic research and technological advancements, particularly focused on combating prevalent and emerging infectious diseases, especially in the Guangdong-Hong Kong-Macao Greater Bay Area of China.

RESEARCH FOCUS

Vaccines



Develop a novel platform for generating safe and effective vaccines against respiratory viruses such as COVID-19 and influenza virus.

Bi-specific Neutralizing Antibody Platform



Engineer novel antibodies for the prevention and treatment of HIV and respiratory viruses

Antivirals Targeting Host Factors



Create host-targeting broad spectrum antivirals with multiple mechanisms of action

Antivirals Targeting Viral Factors



Develop new virus-targeting antivirals using state-of-the-art approaches such as antiviral peptides and genome editing

Human and Animal Organoids



Establish human and animal organoid culture system for biomedical research and translational applications



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Unit 208-213, 2/F, Building 15W, Hong Kong
Science Park, Pak Shek Kok, N.T., Hong Kong



Our mission is to revolutionise drug and therapeutic discovery & development, and provide a novel and affordable solution for medical treatment, patient stratification and disease diagnostics for rare diseases of newborns.

We observed that there is a lack of effective treatment for rare diseases of newborns and there is an urgent need of human organ proxies in the dish for disease modelling, and biomarker, drug and therapeutic discovery.

To fill the gap, we will provide state-of-the-art and first-in-class human disease organoids for personalised precision medicine, regenerative medicine and preventive medicine for rare diseases of newborns. Our organoid platform marks the beginning of the deployment of a novel and affordable solution for medical treatment, patient stratification and disease diagnostics. Our platform will have a significant impact in reducing mortality rate, saving billions of dollars in healthcare costs and improving the quality of life of individuals.

Our human iPSC-derived organoids is an immediate solution to the problem.

An organoid is a miniaturised and simplified version of an organ produced in vitro in 3-dimensions that shows realistic micro-anatomy, resembling a near-to-native mini-organ in the dish. They are derived from tissue stem cells, embryonic stem cells or induced pluripotent stem cells (iPSCs), which can self-organise in 3-dimensional culture owing to their self-renewal and differentiation capacities. Organoids are used by scientists to study diseases and treatments in a laboratory.

GLOAS provides state-of-the-art technology platforms including patients'/normal human induced pluripotent stem cells (hiPSCs); first-generation patient's/normal hiPSC-derived human organoids with one cell type (human organoids 1.0); second-generation advanced patient's/normal human organoids with multiple cell types (human organoids 2.0); tissue hydrogel; and fabricated human bile duct to revolutionise the discovery and development of drugs and therapeutics for neonatal rare diseases.

Gut Liver Organoid Applied Sciences (GLOAS) Limited

<https://www.gloas.org/>

About Hong Kong-Shenzhen Innovation and Technology Park Limited

As the one-of-a-kind I&T park conjointly tied to Shenzhen, Hong Kong-Shenzhen Innovation and Technology Park (HSITP) is one of the two I&T parks, along with the Shenzhen Park, in The Co-operation Zone under the "one river, two banks" and "one zone, two parks" vision.

Located at the Lok Ma Chau Loop in Hong Kong, HSITP will cover an area of 87 hectares from east to west. The first phase of development is expected to be completed from the end of 2024 onwards.

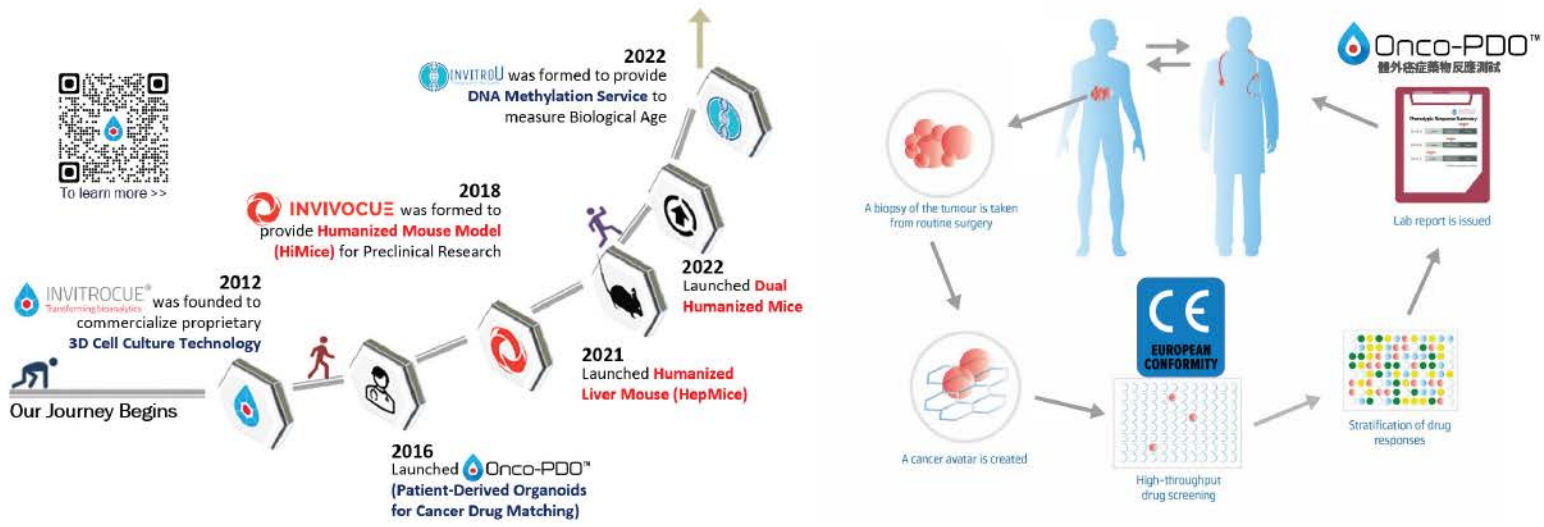
Official website:

<https://www.hsitp.org/>



INVITROCUE[®]
Transforming bioanalytics

YOUR PARTNER FOR PERSONALIZED ONCOLOGY



BRIDGING THE GAP: REVOLUTIONIZING DRUG DEVELOPMENT



01

Immunity

- Macrophage
- T cells
- B cells
- Natural Killer cells
- ROS/Superoxide
- Cytokine Release

02

Cell metabolism

- Fat Uptake
- Cellular Energy
- Glucose Uptake
- Fatty acid Oxidation
- Glucose Oxidation
- Glutamine Oxidation

03

3D Models

- Airway
- Liver-Kupffer cells
- Nerve (Brain)
- Skin
- Cardiovascular

04

Anti-cancer

- Cancer Patient-Derived Organoids (PDO)
- Breast, Lung, CRC, Pancreatic, Ovarian, ESCC PDO, etc...
- Cancer Cell Lines

05

In-vivo Testing

- PDX, PDOX, CDX HiMice
- NAFLD/NASH HiMice
- Autoimmune Diseases
- Infectious Diseases (SARS-CoV-2, ARDS, Hep B, H1N1)

06

Customized Study

- Anti-aging
- Bio-imaging
- DMPK & Safety
- Immune Profiling
- Cytokine Profiling
- Histology & Molecular

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In partnership with :



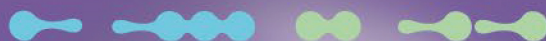


EXPLORE AND CONNECT JOIN TO CHANGE THE WORLD

**Imagine the possibilities
waiting here for you.**

ABIC Membership Program is designed for serial entrepreneurs, industries, investors and companies interested in partnering with ABIC on research and development, manufacturing and commercialization. The selective nature of this program will ensure the highest engagement with our distinguished body which offers unprecedented access to exclusive membership events, expert community, and platform resources with state-of-the-art facilities.

Eligible candidates are welcome to apply to become tomorrow's leaders with first-hand experiences in transformative health management, together cultivating visibility and life-changing advancements at the forefront of biomedical engineering and instrumentation technologies.



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