



YOUNG ACADEMY OF SCIENCES SUMMIT 青年科學家峰會

PROGRAMME BOOKLET

2024-2025

SUB-CONFERENCE IV

科學領航 啟迪未來

SCIENCE, THE PORTAL
TO NEW ENLIGHTENMENTS

Organiser:



THE HONG KONG YOUNG
ACADEMY OF SCIENCES
香港青年科學院

Co-organiser:

 大灣區共同家園投資有限公司
Greater Bay Area Homeland Investments Limited

 大灣區共同家園青年公益基金
Greater Bay Area Homeland Youth Community Foundation

Funding organisation:

 π 創新科技署
Innovation and Technology Commission

Any opinions, findings, conclusions or recommendations expressed in this material (event or by members of the project team) do not reflect the views of the Government of the Hong Kong Special Administrative Region, the Innovation and Technology Commission or the General Support Programme Vetting Committee of the Innovation and Technology Fund.

Local academic partner

 香港城市大學
City University of Hong Kong

 香港都會大學
科技學院
Hong Kong Metropolitan University
School of Science and Technology

 PEAK
Member of VTC Group
VTC 職訓機構

 Lingnan 嶺南大學
University of Hong Kong

 香港中文大學
The Chinese University of Hong Kong

 THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

 香港科技大學
THE HONG KONG
UNIVERSITY OF SCIENCE
AND TECHNOLOGY

 香港大學
THE UNIVERSITY OF HONG KONG

Supporting organisation

 ASTRI
Hong Kong Applied Science and
Technology Research Institute
香港應用科技研究院

 數碼港
Cyberport 20

 香港科技園
HKSTP

 香港青年工業家協會
HONG KONG YOUNG INDUSTRIALISTS COUNCIL

 香港資優教育學苑
The Hong Kong Academy for Gifted Education

(Listed in alphabetical order)



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YOUNG ACADEMY OF SCIENCES SUMMIT 青年科學家峰會

ABOUT YASS

- Showcases the excellent research work of the young scientists in Hong Kong.
- Provides a unique platform for local young academics and scientists to gather and engage in a cross-disciplinary, cross-cultural and cross-institutional cooperation in Hong Kong.
- Demonstrates Hong Kong's unique position as a strong and energetic research base, well prepared for any knowledge transfer collaborations.



ABOUT THE ORGANISER



The Hong Kong Young Academy of Sciences

The Hong Kong Young Academy of Sciences (YASHK) was established in 2018 and is a chapter of The Hong Kong Academy of Sciences (ASHK). YASHK offers a strong platform for young scientists to make meaningful contribution to the Hong Kong community and build up a better research and education environment for science and technology. Currently, YASHK has 61 young scientists as its Members.

🌐 <https://yashk.org.hk>





ABOUT CO-ORGANISERS



Greater Bay Area Homeland Investments Limited

The Greater Bay Area Homeland Investments Limited was jointly established by international large-scale industrial institutions, financial institutions and new economic enterprises. Greater Bay Area Homeland Development Fund is set up under the Company to grasp the historical opportunities of the development of Guangdong-Hong Kong-Macao Greater Bay Area, and the construction of an International Innovation and Technology Hub, focusing on technological innovation, industrial upgrading, quality of life, smart city and all other related industries. The Company and the Fund cover venture capital, private equity investment, listed company investment, M&A investment and so on to offer financial support for outstanding entrepreneurs and enterprises, connecting industrial and financial resources, achieving long-term returns for shareholders and investors, and contributing positively to economic and social development.

🌐 <http://www.gbahomeland.com/>



Greater Bay Area Homeland Youth Community Foundation

Founded in September 2019, the Greater Bay Area Homeland Youth Community Foundation (the "Foundation") is a charitable organisation that was established to leverage the enormous growth opportunities made possible by the Greater Bay Area concept. Guided by its mission of "For Our Youth For Our Future", the Foundation is a joint effort by young leaders from all walks of life to support Hong Kong youths in their studies, careers and entrepreneurship. Taking education and training as its focus, the Foundation hopes the work will enable young people to gain a better understanding of the region's business environment and culture that is conducive to their personal and professional growth.

🌐 <https://www.gbayouth.org.hk/>



ABOUT THE FUNDING ORGANISATION

π 創新科技署
Innovation and Technology Commission

Innovation and Technology Commission

To promote the development of innovation and technology, an Innovation and Technology Commission (ITC) was set up on 1st July 2000, with the mission to spearhead Hong Kong's drive to become a world-class, knowledge-based economy. The Commission formulates and implements policies and measures to promote innovation and technology; supports applied research, technology transfer and application; promotes technological entrepreneurship; facilitates the provision of technology infrastructure and development of human resources; and promotes internationally accepted standards and conformity assessment services to underpin technological development and international trade. The Commission works closely with its partners in the Government, industry, business, tertiary education institutions and industrial support organisations.

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YASS ACTIVITY OVERVIEW

02

1st YASS SUMMIT

December 2023

Sub-Conference I

March 2024

Sub-Conference II

May 2024

Sub-Conference III

September 2024

2nd YASS SUMMIT

December 2024

Sub-Conference IV

March 2025

Sub-Conference V

June 2025

Sub-Conference VI

September 2025

MEMBERS OF THE PROGRAMME COMMITTEE

03

The Programme Committee provides general oversight and advice to the YASS 2023-2025.



Prof. Anderson SHUM
City University of Hong Kong



Prof. Stephanie MA
The University of Hong Kong



Prof. Minhua SHAO
The Hong Kong University of
Science and Technology



Prof. Kathy Oi Lan LUI
The Chinese University of
Hong Kong



Prof. Zijian ZHENG
The Hong Kong
Polytechnic University



Prof. Johnny HO
City University of Hong Kong



Prof. Zhifeng HUANG
The Chinese University of
Hong Kong



Prof. Timothy BONEBRAKE
The University of Hong Kong



Prof. Yang CHAI
The Hong Kong
Polytechnic University



Prof. Fuk Yee KWONG
The Chinese University of
Hong Kong



Prof. Shih-Chi CHEN
The Chinese University of
Hong Kong



Prof. Giulio CHIRIBELLA
The University of Hong Kong



Prof. Kai LIU
The Hong Kong University of
Science and Technology



Prof. Danguan LEI
City University of Hong Kong



Prof. Ken LEUNG
Hong Kong
Baptist University



Prof. Zuankai WANG
The Hong Kong
Polytechnic University



Prof. Amos TAI
The Chinese University of
Hong Kong



Prof. Joelle WANG
Hong Kong
Baptist University

YASS (2024-2025) SUB-CONFERENCE IV PROGRAMME RUNDOWN

10 MARCH 2025 (MONDAY)

Time: 09:30 – 18:00

Venue: MWT2, G/F, Meng Wah Complex, The University of Hong Kong,
Pokfulam, Hong Kong

Theme: From Cancer Discovery Science to Therapeutic Innovation

09:00 - 09:30

Registration

09:30 - 09:45

OPENING CEREMONY

Welcome Message



Stephanie MA

Founding Member and Vice-President,
The Hong Kong Young Academy of Sciences;
Jimmy and Emily Tang Endowed Professor in Molecular Genetics,
School of Biomedical Sciences, The University of Hong Kong

Opening Remarks



Alice WONG

Associate Vice-President (Research),
Interim Director and Chair Professor,
School of Biological Sciences, The University of Hong Kong

09:45-11:20

THEME 1

Prevention and Early Detection of Cancer

Speakers



Topic | Gut Microbiome in GI Cancer Prevention and Early Detection

Jun YU

Member, The Hong Kong Academy of Sciences;
Choh-Ming Li Professor of Medicine and Therapeutics,
The Chinese University of Hong Kong



Topic | AI-Powered Next-Generation Histological Imaging with Medical Diagnosis

Terence Tsz Wai WONG

Associate Professor,
Department of Chemical and Biological Engineering,
The Hong Kong University of Science and Technology



Topic | Early Cancer Detection of Hepatocellular Carcinoma in a High-Risk Population

Zongli ZHENG

Associate Professor, Department of Biomedical Sciences,
City University of Hong Kong

Panel Discussion

Moderator



Chun Kit KWOK

Member, The Hong Kong Young Academy of Sciences;
Associate Professor, Department of Chemistry,
City University of Hong Kong

Panelists

Jun YU

Terence Tsz Wai WONG

Zongli ZHENG

11:20-12:55

THEME 2

Mechanisms of Cancer Development

Speakers



Topic | Neutrophils: The Power of Many

Lai Guan NG

Senior Investigator, Shanghai Immune Therapy Institute



Topic | Novel Subtype-Specific Cancer Driver Genes Uncovered by Epigenetic Landscape in Breast Cancer

Rebecca CHIN

Associate Professor, Department of Biomedical Sciences, City University of Hong Kong



Topic | Decoding Oncohistone Mutations in Human Cancer

Xiang David LI

Member, The Hong Kong Young Academy of Sciences; Professor, Department of Chemistry, The University of Hong Kong

Panel Discussion

Moderator



Carmen WONG

Member, The Hong Kong Young Academy of Sciences; Associate Professor, Department of Pathology, The University of Hong Kong

Panelists

Lai Guan NG

Rebecca CHIN

David LI

12:55 - 14:15

LUNCH

(by invitation)

14:15-15:50

THEME 3

Advancements in Technologies for Cancer Research and Understanding Cancer Heterogeneity

Speakers



Topic | Computational Study of Cancer Evolution and Heterogeneity for Precision Medicine

Jiguang WANG

Padma Harilela Associate Professor,
Division of Life Science and Department of Chemical and Biological Engineering,
The Hong Kong University of Science and Technology



Topic | Spatially Resolved Multimodal Signatures of Immunotherapy Resistance in Hepatocellular Carcinoma

Zhenqin WU

Assistant Professor, Department of Computer Science,
School of Computing and Data Science,
The University of Hong Kong



Topic | Using Genome Editing and Combinatorial Genetics to Tackle Cancer

Alan Siu-lun WONG

Associate Professor, School of Biomedical Sciences,
The University of Hong Kong

Panel Discussion

Moderator



Kevin TSIA

Founding Member, The Hong Kong Young Academy of Sciences;
Professor, Department of Electrical and Electronic Engineering,
The University of Hong Kong

Panelists

Jiguang WANG

Zhenqin WU

Alan Siu-lun WONG

15:50 - 16:10

Coffee break

16:10-17:45

THEME 4

Emerging Treatments for Cancer

Speakers



Topic | The Crossroads of Metabolism, Cell States and Tumor Microenvironment in Cancer

Wai Leong TAM

Deputy Executive Director,
Genome Institute of Singapore, A*STAR



Topic | Emerging Chemical Biology Techniques for Drug Discovery

Clive, Yik-Sham CHUNG

Assistant Professor,
School of Biomedical Sciences and Department of Pathology,
School of Clinical Medicine, The University of Hong Kong



Topic | Decoding the Immunoregulatory Role of Hepatic Innervation: A Novel Therapeutic Approach to Combat Liver Metastasis

Jingying ZHOU

Assistant Professor, School of Biomedical Sciences,
The Chinese University of Hong Kong

Panel Discussion

Moderator



Stephanie MA

Founding Member and Vice-President,
The Hong Kong Young Academy of Sciences;
Jimmy and Emily Tang Endowed Professor in Molecular Genetics,
School of Biomedical Sciences, The University of Hong Kong

Panelists

Wai Leong TAM

Clive, Yik-Sham CHUNG

Jingying ZHOU

17:45-18:00

CONCLUDING REMARKS

18:00

END OF SUB-CONFERENCE IV

SPEAKER PROFILE



Stephanie MA

Founding Member and Vice-President, The Hong Kong Young Academy of Sciences

Jimmy and Emily Tang Endowed Professor in Molecular Genetics, School of Biomedical Sciences, LKS Faculty of Medicine

Associate Vice-President (Research and Innovation), The University of Hong Kong

Professor Ma obtained her B.Sc. (Cell Biology and Genetics) and M.Sc. (Experimental Medicine) degrees from the University of British Columbia. She then graduated with a Ph.D. degree from The University of Hong Kong (HKU) with an outstanding ranking and was awarded the Li Ka Shing Prize for the Best Ph.D. Thesis of that year. Since then, she has been working at HKU where she is currently the Jimmy and Emily Tang Professor in Molecular Genetics at the School of Biomedical Sciences in Li Ka Shing Faculty of Medicine, HKU (HKUMed), and Associate Vice-President (Research and Innovation) at HKU. Professor Ma's research interest is on exploiting stemness as a cancer cell vulnerability. Her team is dedicated to better understand how a more undifferentiated and stemness signature in cancer

can contribute to therapy resistance and tumor recurrence. Professor Ma has been listed as a top 1% most-cited scholars by the ISI Essential Science Indicator and top 2% scientists worldwide by Stanford University. She is also the recipient of a number of awards including the more recent 2017 University of British Columbia Alumni Builder Award (Canada), the 2021 Research Grants Council (RGC) Research Fellow Scheme as well as the 2023 Croucher Senior Research Fellowship. Professor Ma is a Founding Member of the Hong Kong Young Academy of Sciences in which she currently serves as Vice-President and Co-Chair of their Outreach Committee. She is a member of The Board of Directors at Hong Kong Science and Technology Parks Corporation.



Alice WONG

Associate Vice-President (Research), The University of Hong Kong

Director (Interim), Dr. Li Dak-Sum Research Centre, The University of Hong Kong - Karolinska Institutet Collaboration in Regenerative Medicine

Director (Interim) and Chair Professor (Chair of Cancer Biology), School of Biological Sciences, Faculty of Science, The University of Hong Kong

Professor Alice Sze Tsai WONG is a Chair Professor in the School of Biological Sciences at the University of Hong Kong. She also serves as the Associate Vice-President (Research) and Director (Interim) of the Dr Li Dak-Sum Research Centre and the School of Biological Sciences.

Professor Wong is internationally recognised in the field of signal transduction in cancer. In particular, cell adhesion molecules are very important for many physiological processes, which if deregulated, can contribute to cancer. She has made numerous seminal contributions in this research and its translational applications. These discoveries are preceded by innovation and technology awards including the International Exhibition of Inventions award and the Disruptive Technology Innovation

Key Project. In recognition of her academic contributions, she is the recipient of numerous prestigious awards for excellence in research, including the Women in Cancer Research - Brigid G. Leventhal Scholar Award, the AACR-Bristol Myers Squibb Oncology Young Investigator Scholar Award, the HKU Outstanding Young Researcher Award, the Croucher Senior Research Fellowship, the Royal Society of Biology Fellowship, and currently the RGC Senior Research Fellowship.

In addition to her great achievements in research, Professor Wong also impacts teaching and learning, as recognised by the HKU Outstanding Teaching Award and the UK Higher Education Academy's Senior Fellowship.



Jun YU

Choh-Ming Li Professor of Medicine and Therapeutics
Assistant Dean (mainland affairs), Faculty of Medicine
Director, Institute of Digestive Disease
Director, The State Key Laboratory of Digestive Disease, The Chinese University of Hong Kong
Member, The European Academy of Sciences
Member, The Hong Kong Academy of Sciences

Jun Yu is Choh-Ming Li Professor of Medicine and Therapeutics; Assistant Dean, Faculty of Medicine; Director, State Key Laboratory of Digestive Disease; Director, Institute of Digestive Disease; Director, Research Laboratory of Digestive Disease; CUHK. She is a member of the European Academy of Sciences; member of The Hong Kong Academy of Sciences; Member of the Chinese Academy of Medical Sciences; Associate Editor of Gut, Oncogene, Molecular Oncology, and Advisory Board of Cancer Cell.

Prof. Yu's research interests being Gut microbiota in gastrointestinal (GI) cancers; genetic/epigenetic alterations in GI cancers, fatty liver disease and its associated liver cancer

in relation to the molecular pathogenesis and treatment response. She has 626 peer-reviewed publications (e.g. Cell, Nature, Cancer cell, Cell Metab, J Clin Oncol, Nat Microbiol, Gastroenterology, Gut). ISI citation 48,832, ISI h-index=110. She obtained over 50 prestigious awards including The National Natural Science Award (2020 and 2016); Guanghua Engineering Science & Technology Prize China (2022); He Liang He Li Science and Technology Progress Award (2018); AGA Council (Oncology) Research Mentor Award USA (2017); Croucher Senior Research Fellowship Hong Kong (2016). She is Clarivate Highly Cited Researcher. She ranked Top 1 female Scientist in China (2024 Best Global Scientists-Issued by Research.com).



Terence Tsz Wai WONG

Associate Professor, Department of Chemical and Biological Engineering,
Associate Director, Research Center for Medical Imaging and Analysis,
Associate Director, Collaborative Center for Medical and Engineering Innovation,
The Hong Kong University of Science and Technology
Founder and Chairman, PhoMedics Limited

Terence Tsz Wai Wong received his B.Eng. and M.Phil. degrees both from the University of Hong Kong in 2011 and 2013, respectively. He studied Biomedical Engineering at the Washington University in St. Louis (WUSTL) and Medical Engineering at the California Institute of Technology (Caltech), under the tutelage of Prof. Lihong V. Wang (member of the National Academy of Engineering and Inventors) for his Ph.D. degree. He then joined The Hong Kong University of Science and Technology (HKUST) as an Assistant Professor in the Department of Chemical and Biological Engineering (CBE) in 2018, and was promoted to Associate Professor in 2024. Prof. Wong is also the Associate Director of two research centers at HKUST, namely

HKUST Research Center for Medical Imaging and Analysis and Collaborative Center for Medical and Engineering Innovation.

With the integration of optical/photoacoustic imaging and deep-learning algorithms, his research focuses on developing smart optical and photoacoustic devices to enable translational label-free and high-speed histological imaging, three-dimensional whole-organ imaging, and cancer-targeting deep-tissue imaging. He also founded a MedTech startup company, PhoMedics Limited, aiming to improve the healthcare system and patient care through innovative technology. PhoMedics is one of the first recipients of the Innovation and Technology Commission's "RAISE+ Scheme".



Zongli ZHENG

Associate Professor, Department of Biomedical Sciences, City University of Hong Kong

Prof. Zheng received his PhD degree with distinction in medical epidemiology from Karolinska Institutet in 2011. He then completed his postdoctoral training at Massachusetts General Hospital and Harvard Medical School, supported by the

Swedish Research Council International Postdoc Fellowship. In July 2015, he joined the Department of Biomedical Sciences at City University of Hong Kong.

He invented the AMP technology that been adopted globally in molecular diagnosis assays to guide targeted therapy for cancer patients. He co-developed the GUIDE-seq method that has been

widely used for genome-wide unbiased profiling of CRISPR edits and has supported the first CRISPR therapy approved by FDA in December 2023. Prof. Zheng's current research employs multi-disciplinary approaches, including genomics, AI-powered protein engineering, and molecular epidemiology, and centring on: i) Lung Cancer: to understand the molecular heterogeneity that underpins resistances to targeted therapy and immunotherapy in lung cancer patients. ii) Precision Genome Editing: to advance precision genome editing and delivery technologies for the development of safe and curative treatments. and iii) Liquid Biopsy: to identify molecular determinants and circulating signatures that can be used for cancer monitoring, diagnosis, and early detection.



Chun Kit KWOK

Member, The Hong Kong Academy of Sciences

Co-Chair, Policy Advisory Committee, The Hong Kong Young Academy of Sciences

Associate Professor, Department of Chemistry, State Key Laboratory of Marine Pollution, Shenzhen Research Institute, City University of Hong Kong

Asian RNA Research Ambassador, RNA Society

Dr. Kwok joined CityU in 2016 as an Assistant Professor, becoming Associate Professor in 2021. He received the CityU President's Award and Croucher Innovation Award in 2019, joined the State Key Laboratory of Marine Pollution in 2020, and was elected to YASHK and recognized as a Rising Star in Chemistry in 2021. In 2022, he was awarded the NSFC Excellent Young Scientist Fund. (優青 (港澳)).

Dr. Kwok's research focus is to explore the role of RNA structures and interactions in biology, especially the functions of G-quadruplex structures/interactions and non-coding RNA structures/interactions in the mammalian transcriptome

and their relevance to gene regulation, RNA metabolism and diseases. Two new research directions in the Kwok lab are to develop targeting tools for detection, imaging, intervention of these important RNA structures and interactions, as well as to invent innovative nucleic acid-based technologies for sensing chemical pollutants and pathogens.

To cultivate a stimulating learning environment for students and to establish RNA community in Hong Kong, Dr. Kwok, together with Dr. Minh Le, has also founded the Hong Kong RNA Club in Aug 2017 and organized RNA seminar and symposium events regularly.



Lai Guan NG

Senior Investigator, Shanghai Immune Therapy Institute

Dr Ng conducted his PhD study at the Garvan Institute of Medical Research in Sydney, Australia. Following his postdoctoral training, Dr Ng joined Singapore Immunology Network (SIgN) to establish his own laboratory in 2009. Over

the next 13 years, Dr Ng established himself as a leader in the field of myeloid cell biology. His research primarily focuses on unraveling the complexities of myeloid cell ontogeny, cellular behavior, and tissue adaptation. In 2023, Dr. Ng accepted a

new position as a Senior Investigator at the Shanghai Immune Therapy Institute, where he also serves as the Director of the Center for Systems Immunology and a Professor at Shanghai Jiao Tong University in China. Dr Ng's contributions to the field of immunology research is exemplified by his multiple publications in leading journals such as Science, Science Immunology, Immunity, Journal of Experimental Medicine, Science Advances, Advanced Materials and Nature Protocols. He has also been listed as one of the Highly Cited Researchers by Clarivate for 5 consecutive years (2020-2024).



Rebecca CHIN

Associate Professor, Department of Biomedical Sciences,

Assistant Head (UG Education), Department of Biomedical Sciences, City University of Hong Kong

Prof. Rebecca Chin is an Associate Professor of the Department of Biomedical Sciences at City University of Hong Kong. She received her Bachelor of Technology's

degree from the University of Auckland in New Zealand and PhD. degree from Albert Einstein College of Medicine. With a postdoctoral fellowship from Susan G. Komen for the Cure Breast Cancer Foundation, she studied the signal transduction events that drive breast cancer metastasis at Harvard Medical School. Prof. Chin's research focuses on epigenetic dysregulation in cancer stemness and brain metastasis. Prof. Chin is particularly interested in triple-negative breast cancer, an aggressive form of

breast cancer with limited targeted therapeutic agents. Another major area of her investigation is to explore synthetic lethality strategy targeting novel oncogenes and the PI3K/Akt pathway. She is a recipient of a 2015 V Scholar Award, and was named an Albert Wyrick Scholar, which recognizes young scientists who pioneer techniques to make breakthroughs in cancer research. Dr. Chin is also a Howard Temin Pathway to Independence Award (NIH K99) recipient. As Assistant Head (UG Education), Prof. Chin oversees the teaching and learning for students in the biomedical sciences field. She also serves as a board member at the Epigenetics Society.



Xiang David LI

Member, The Hong Kong Young Academy of Sciences

Professor, Department of Chemistry,

Professor (by courtesy), School of Biological Sciences, The University of Hong Kong

Xiang David Li received his B.Sc. in Chemistry from Fudan University in 2003 and his Ph.D. in 2008 from The University of Hong Kong under the guidance of Professor Dan Yang. He then spent three years as a postdoctoral fellow with Professor Tarun Kapoor at Rockefeller University. In 2011, he returned to The University of Hong Kong to start his independent career as an assistant professor. He was promoted to associate professor in 2017 and to full professor in 2020. He received the NSFC Excellent Young Scientist Fund (Hong Kong and Macau) in 2019, the Tetrahedron Young Investigator Award for Bioorganic and Medicinal Chemistry in 2023, and awarded NSFC's Distinguished Young Scholars in 2024.

Dr. Li's research is at the interface of chemistry and biology. He develops chemical tools to address key questions in this field, which links hereditary and environmental impacts on health. His key contribution is creating robust chemical methods to identify proteins that 'write,' 'erase,' or 'translate' histone PTMs. This work helps unravel the biological roles of specific histone modifications and clarifies how these PTMs are interpreted in normal physiology and disease pathogenesis.



Carmen WONG

Member, The Hong Kong Young Academy of Sciences

Assistant Dean (Core Platforms & Advancement) and Associate Professor, Department of Pathology, Li Ka Shing Faculty of Medicine, The University of Hong Kong

Dr. Carmen Chak-Lui Wong, assistant dean of LKS Faculty of Medicine, is currently an Associate Professor and Principal Investigator in the Department of Pathology and the State Key Laboratory of Liver Research at HKU. She obtained her PhD degree in HKU and completed her post-doctoral training at Johns Hopkins University. She is the recipient of the NSFC Distinguished Young Scholars Fund, NSFC Excellent Young Scientists Fund (Hong Kong and Macau), RGC Research Fellowship, Croucher Innovation Award, HKU Outstanding Young Researcher Award (OYRA), HKU Outstanding Research Student Supervisory Award (ORSSA), Hong Kong Young Scientist Award, the Li Ka Shing Prize. Her research team is devoted to unravelling the complex mechanisms that drive

metabolic reprogramming and immune evasion in liver cancer. Her team employs precision mouse models to gain a deeper understanding of personalized medicine for liver cancer, revealing the deterministic effects of driver gene mutations on the immune characteristic and response for immunotherapies. The study has paved the way for precision medicine. Her work was published in Gastroenterology, Gut, Journal of Hepatology, Hepatology, Nature Communications, Journal of Clinical Investigation, PNAS, Science Advance. She is the ESI top 1% most cited scholar in 2023. She is an elected member of the Hong Kong Young Academy of Sciences. She currently serves as a co-editor-in-chief of Hepatology Communications (AASLD). She is also the council member of the governing board of the International Liver Cancer Association (ILCA).



Jiguang WANG

Padma Harilela Associate Professor, Division of Life Science and Department of Chemical and Biological Engineering, The Hong Kong University of Science and Technology

Prof. WANG received his Ph.D. in Applied Mathematics from Academy of Mathematics and Systems Science, Chinese Academy of Sciences (CAS), and won the Special Prize of President Scholarship and Excellent PhD thesis Award of CAS. Between 2011 and 2015, he was a Postdoctoral Research Scientist at Columbia University. From 2015, he was named as the Precision Medicine Fellow and promoted to an Associate Research Scientist. He established the Wang Genomics Laboratory @HKUST in 2016, focusing on the application of data science in biology and medicine. He has made substantial contributions to (1) characterization, modelling, and prediction of cancer evolution from genomics

(Nat Genet 2016; Nat Genet 2017; Nat Commun 2021); (2) discovery, elucidation, and clinical application of MGMT fusion (Nat Genet 2016; Nat Commun 2020) and METex14 in adult gliomas (Nat Genet 2018; Cell 2018); (3) Discovery of MAP3K3-I441M in CCM (AJHG 2021) and elucidation of EndMT in bAVM (Circ Res 2021); (4) reconstruction of RNA Exosome-regulated non-coding transcriptomes (Nature 2014; Cell 2015). He won the Excellent Young Scientist Award of NSFC (2019), School of Engineering Young Investigator Research Award (2019), School of Science Research Award (2021), and the Zhong Nanshan Youth Science and Technology Innovation Award (2021).



Zhenqin WU

Assistant Professor, Department of Computer Science, School of Computing and Data Science, The University of Hong Kong

Zhenqin is an Assistant Professor in the Department of Computer Science at the University of Hong Kong. His research focuses on developing artificial intelligence and deep learning tools to model and

interpret spatial biology, including spatial proteomics, transcriptomics, and histopathological imaging. Zhenqin obtained his Ph.D. at Stanford University, advised by Prof. James Zou and Dr. Vijay Pande, during which he worked on artificial intelligence in computational biology.



Alan Siu-lun WONG

Associate Professor at School of Biomedical Sciences of The University of Hong Kong
Team Leader in Functional Genomics at Centre of Oncology and Immunology Limited, InnoHK

Dr. Alan Siu-lun Wong is an Associate Professor at School of Biomedical Sciences of The University of Hong Kong (HKU). His research takes an integrative approach

leveraging on techniques in synthetic biology, CRISPR-based genome editing, combinatorial genetics, and high-throughput functional genomics to decode the complex genetics of human diseases, as well as engineer gene editing and cellular tools for providing new biomedical and biotechnological solutions. His work has resulted in publications in prestigious journals including Nature Methods, Nature Biomedical Engineering, Nature Biotechnology, Nature Cell Biology, Nature Neuroscience,

Nucleic Acids Research, Cancer Research, PNAS, Cell Systems, Cell Reports, as well as PCT patents and patent applications on CRISPR-based screening methods and tools. He was awarded the Croucher Foundation Studentship (2008), Butterfield-Croucher Award (2008), Croucher Foundation Fellowship (2012), Hong Kong Institution of Science Young Scientist Award in Life Science (2011), RGC Early Career Award (2016), NSFC Excellent Young Scientists Award (Hong Kong and Macau) (2020), HKU Outstanding Young Researcher Award (2023), and the BOCHK Science and Technology Innovation Prize in Life and Health (2023).



Kevin TSIA

Founding Member, The Hong Kong Young Academy of Sciences
Professor, Department of Electrical and Electronic Engineering
Program Director, Biomedical Engineering Program, Faculty of Engineering, The University of Hong Kong

Prof. Kevin K. Tsia received his Ph.D. degree at the Electrical Engineering Department, at University of California, Los Angeles (UCLA), in 2009. He is currently an Associate Professor in the Department of Electrical and Electronic Engineering, and the Program Director of the Biomedical Engineering Program, at the University of Hong Kong. His research interest covers a broad range of subject matters, including ultra-fast optical imaging for imaging flow cytometry and cell-based assay; high-speed in-vivo brain imaging; computational approaches for single-cell analysis. His previous researches, such as energy harvesting in silicon photonics and the World's fastest optical imaging system, have attracted worldwide press coverage and featured in many science and technology review magazines such as MIT

Technology Review, EE Times and Science News. He received Early Career Award 2012-2013 by the Research Grants Council (RGC) in Hong Kong. He also received the Outstanding Young Research Award 2015 at HKU as well as 14th Chinese Science and Technology Award for Young Scientists in 2016. His recent research on ultrafast optofluidic imaging technologies, dubbed "ATOM" and "FACED", have also been covered by media and scientific magazines. He is author or coauthor of over 160 journal publications, conference papers and book chapters. He holds 3 granted and 4 pending US patents on high-speed optical imaging technologies. He is a co-founder of start-up company commercializing the high-speed microscopy technology for clinical diagnostic applications.



Wai Leong TAM

Deputy Executive Director, Genome Institute of Singapore, A*STAR

Principal Investigator, Cancer Science Institute of Singapore, NUS

Investigator, National Research Foundation, Singapore

A*STAR Fellow, Agency for Science, Technology and Research

Associate Professor (Adjunct), Yong Loo Lin School of Medicine, National University of Singapore

Wai Leong TAM is the Deputy Executive Director of the Genome Institute of Singapore, Singapore's flagship genome science institute spearheading the innovation of genomics for improving Singaporean lives and health. He oversees the Precision Medicine effort to understand the genetic and genomic underpinnings of health and disease, as well as lead programmatic initiatives with ecosystem partners to develop and implement strategies to improve health outcomes.

As a cancer biologist, Dr Tam develops and applies genome-scale functional genomic approaches to discover the molecular drivers and targets of cancer progression in Asian-specific and Asian-prevalent cancers. His lab focuses on uncovering

emerging paradigms of cancer stem cells, specifically in the areas of cancer metabolism, cell state transitions, and tumor microenvironment. Current efforts are focused on identifying and validating preclinical targets that can lead into drug development, as well as translating fundamental discoveries into paradigms that can help change and advance clinical practice. As recognition of his research excellence, Dr Tam was a recipient of the National Research Foundation Fellowship, and a current recipient of the National Research Foundation Investigatorship. He holds joint faculty appointment at the Cancer Science Institute of Singapore, whereby he helps to bridge research collaborations between A*STAR and NUS.



Clive, Yik-Sham CHUNG

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Prof Clive Yik-Sham Chung is an Assistant Professor in the School of Biomedical Sciences and Department of Pathology at The University of Hong Kong (HKU). He obtained his BSc in Chemistry and PhD under the supervision of Prof. Vivian Yam at HKU. He then conducted postdoctoral studies with Prof. Chi-Ming Che on inorganic medicines, Prof Christopher Chang on molecular

imaging and Prof. Daniel Nomura on chemoproteomics. Since 2020, he has established his own laboratory at HKU, focusing on the development of: (1) chemoproteomics probes to identify new druggable hotspots; (2) molecular probes for investigating cellular redox biology; (3) novel therapeutic covalent ligands for targeted therapy; (4) new cysteine chemistry for drug research and development.



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Dr. ZHOU Jingying is an Assistant Professor at the School of Biomedical Sciences, The Chinese University of Hong Kong (CUHK). She earned her Ph.D. in Immunology from the University of Hong Kong (HKU) in 2013, receiving the Award for Outstanding

Research Postgraduate Student. She then joined CUHK as a postdoctoral fellow, advancing to Research Assistant Professor in 2018 and Assistant Professor in 2022. Dr. Zhou's research focuses on neuroimmunomodulation and immunometabolism in cancer metastasis and immunotherapy. Her lab employs cutting-edge platforms, including high-dimensional flow cytometry, immune cell tracing, cellular metabolomics, neurotropic virus tracing, optogenetics, chemogenetics, and single-cell sequencing technologies. Utilizing orthotopic mouse models

(e.g., breast cancer, melanoma, colon cancer, liver cancer) and patient-derived specimens, her work aims to uncover novel mechanisms driving cancer progression and immune evasion. She has published in top-tier journals such as Science Translational Medicine, Gut, Journal of Clinical Investigation, and co-invented two U.S. patents on DNA vaccines. Dr. Zhou has also received numerous awards, including those from the American Association of Immunologists (AAI), United European Gastroenterology (UEG), and AstraZeneca. Dr. Zhou's ultimate goal is to develop mechanism-driven immunotherapies for cancer cure. Learn more at: <https://www.zhoulabcuhk.com/>.

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