



Queensland
Government
Australia



中国生物工程学会
Chinese Society of Biotechnology

the university
for the real world QUT



University of
Southern
Queensland



2022 Conference on Integration of Data Science, Information Management and Digital Technology into Health and Medical Research

Beijing International Frontier Science Dialogue

Thursday - Friday, 24-25 November 2022 (Attend through workshop venue and Zoom Link)

G07 Function Centre, Griffith University Gold Coast Campus, 1 Parklands Dr, Southport, QLD 4222

Program

Day 1 (Thursday, 24 November 2022) Morning Session (All times are Australian Eastern Standard Time)

Time	Event	Chair
8:30 a.m.	Arrivals/registration	
9:00 a.m.	<p>Opening Address: Professor Jing Sun, Conference Chair, Professor in Biostatistics, School of Medicine and Dentistry, Griffith University, IETI Australian Society President Professor John Bell, Deputy Vice-Chancellor (Research and Innovation), University of Southern Queensland Professor Yuantong Gu, Head of School, Mechanical, Medical and Process Engineering, Queensland University of Technology Professor Di Yu, Professor in Immunology, Diamantina Institute, University of Queensland</p>	
9:40 a.m.	<p>Professor Steven M McPhail, Centre Director, Australian Centre for Health Services Innovation (AusHSI), and Co-Director, Centre for Healthcare Transformation, Queensland University of Technology, Australia Topic: A systems approach to sustainable transformation of healthcare delivery by optimizing intelligent decision support: moving beyond algorithm obsession to real-world implementation</p>	Prof. Jing Sun

10:10 a.m.	Professor Kun Qu , Professor, Institute of Artificial Intelligence, School of Data Science, Division of Life Sciences and Medicine, University of Science and Technology of China Topic: Challenges and opportunities in spatial genomics	Prof. Yu Xue
10:40 a.m.	MORNING TEA (30 minutes)	
11:10 a.m.	Professor Brent Richards , Professor of Critical Care Research, Gold Coast Hospital and Health Service; Medical Director of Research Commercialisation, Gold Coast University Hospital; Adjunct Professor, Griffith University, Australia Topic: Enabling best patient outcome through integration of AI, big data and critical care	Prof. Zhiyong Li
11:40 a.m.	Professor Luonan Chen , Centre for Excellence in Molecular Cell Science, Chinese Academy of Sciences, China Topic: Quantifying individual health status from multi-omics data by dynamic network biomarkers	Prof. Yu Xue
12:10 p.m.	LUNCH BREAK (60 minutes)	

Day 1 (Thursday, 24 November 2022) afternoon session

Time	Event	Chair
1:10 p.m.	Distinguished Professor Kerrie Mengersen, Ms Wala Areed , Queensland University of Technology Topic: Where are the vulnerable children?	Prof. Yuantong Gu
1:40 p.m.	Associate Professor Jin Gu , Ph.D., Associate Professor, Dept. of Automation, Tsinghua University, Beijing, China Topic: Explore tissue structures by integrative analysing the spatial transcriptomes and histopathological images	Prof. Lu Xie
2:10 p.m.	AFTERNOON TEA (30 minutes)	
2:40 p.m.	Professor Yan Li , University of Southern Queensland, Australia Title: Sleep stages classification using artificial intelligence technology	Prof. Jianming Yong
3:10 p.m.	Professor Yu Xue , Huazhong University of Science and Technology, China Topic: Artificial intelligence biology for COVID-19	Prof. Lu Xie

3:40 p.m.	Professor Zhiyong Li , Queensland University of Technology, Australia Topic: Medical imaging data based biomechanical modelling for an improved diagnosis of cardiovascular diseases	Prof. Yuantong Gu
4:10 p.m.	Professor Youqiong Ye , Shanghai Jiaotong University, Shanghai, China Topic: Reconstruction of the tumour spatial microenvironment along the malignant-boundary-nonmalignant axis	Prof. Lu Xie
4:40 p.m.	Dr Sundresan (Sunny) Naicker , Research Fellow – implementation science (Queensland University of Technology), Australia Topic: Translate research for the public good to implementable technologies, services, products and outcomes	Prof. Yuantong Gu
5:10 p.m.	Break	Prof. Yu Xue
6:00 p.m.	Conference dinner King Palace Kitchen (Yum Cha and Seafood Chinese Restaurant), 5,6,7,8/2669-2679 Gold Coast Highway, Broadbeach QLD 4218	

Day 2 (Friday, 25 November 2022) morning session

Time	Event	Chair
8:30 a.m.	Arrival	
8:40 a.m.	Professor Qi Liu , Tongji University, Shanghai, China Topic: Towards AI-based omics analysis for immune-oncology study	Prof. Lu Xie
9:10 a.m.	Associate Professor Jessica Mar , Health Informatician, University of Queensland Topic: Leveraging statistical shapes in single cell genomics: looking beyond what's Normal to understand human disease	Prof. Di Yu
9:40 a.m.	Professor Xiangjun Du , Sun Yat-sen University, China Topic: Computational systems biology of infectious diseases	Prof. Lu Xie
10:10 a.m.	Professor Xiaohui Tao , School of Mathematics, Physics and Computing, University of Southern Queensland, Australia Topic: The pursuit of human-centered AI for P4 medicine	Prof. Di Yu

10:40 a.m.	MORNING TEA (30 minutes)	
11:10 a.m.	Dr Quan Nguyen , Senior Research Fellow, Head of Genomics and Machine Learning Lab, Institute for Molecular Bioscience, The University of Queensland, Australia Topic: Machine learning analysis of spatial and single-cell genomics to identify gene and cell markers of diseases	Prof. Di Yu
11:40 a.m.	Professor Ge Gao , Biomedical Pioneering Innovation Centre (BIOPIC), Beijing Advanced Innovation Centre for Genomics (ICG), Peking University, Beijing, China Topic: Delineate the regulatory map in silico: novel computational technologies to analyse, integrate and visualize high-throughput biological data	Prof. Yu Xue
12:10 p.m.	LUNCH BREAK (60 minutes)	

Day 2 (Friday, 25 November 2022) Afternoon session

Time	Event	Chair
1:10 p.m.	Professor Alan Liew , Head of School, the School of Information & Communication Technology, and the Deputy Director of the Institute for Integrated Intelligent Systems, Griffith University, Australia Topic: AI for health: data privacy and model protection	Prof. Jing Sun
1:40 p.m.	Professor Jinyan Huang , Biomedical big data centre, the First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China Topic: Transcriptional landscape of acute lymphoblastic leukemia based on big data	Prof. Yu Xue
2:10 p.m.	AFTERNOON TEA (30 minutes)	
2:40 p.m.	Professor Yongsheng Gao , Director of Institute of Integrated Intelligence and Systems, Griffith University, Australia Topic: Classifying images when only a single (or very few) example is available	Prof. Alan Liew

3:10 p.m.

Workshop concludes

Prof. Jing Sun

Conference contact: Dawei Xu: dawei.xu@griffithuni.edu.au, Phone: 0452043223

Sofia Jimenez Sanchez : s.jimenezsanchez@griffith.edu.au, Phone : 0449042953

Acknowledgement:

- This conference is supported by Queensland Health with co-funding from the Queensland Government's International Education and Training Partnership Fund, managed by Study Queensland within Trade and Investment Queensland.
- This conference receives financial sponsorship from Griffith University, Queensland University of Technology and University of Southern Queensland.
- This conference is also sponsored by Chinese Society of Biotechnology, The University of Queensland, and International Engineering and Technology Institute.

Conference venue directions: G07 Function Centre, Griffith University Gold Coast Campus, 1 Parklands Dr, Southport, QLD 4222

