

TRS

Research Grants Council 研究資助局

Theme-based Research Scheme Public Symposium 2022 主題研究計劃會

December 11, 2022 (Sunday)

2022年12月11日 (星期日)

9:00 am – 4:00 pm

上午9時至下午4時

Lecture Theatres T1 and T2,
Meng Wah Complex,
The University of Hong Kong

香港大學明華綜合大樓
1號講堂及2號講堂

Collaborating Universities 協辦大學



City University of
Hong Kong
香港城市大學



The Chinese University of
Hong Kong
香港中文大學



The Hong Kong
Polytechnic University
香港理工大學



The Hong Kong University of
Science and Technology
香港科技大學

Programme*

Time	Programme
9:00 – 9:15	Opening Ceremony (by Chair of Research Grants Council) Professor Yuk-shan WONG
9:15 – 9:45	Plenary Session - FUNDING MECHANISM of TRS (by Chair of Collaborative Research Projects Steering Committee) Professor Paul KL YU
	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #4a4a4a; color: white; padding: 5px; border-radius: 5px;">LECTURE THEATRE T1</div> <div style="background-color: #4a4a4a; color: white; padding: 5px; border-radius: 5px;">LECTURE THEATRE T2</div> </div>
9:45 – 10:30	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 1 - A1</p> <p>Plasma DNA as a Platform Technology for Cancer Detection</p> <p>Professor Dennis Yuk-ming LO <i>The Chinese University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 2 - B1</p> <p>Diagnosis and Prognosis of Intensifying Eutrophication, Hypoxia and the Ecosystem Consequences around Hong Kong Waters: Coupled Physical-biogeochemical-pollution Studies</p> <p>Professor Jianping GAN <i>The Hong Kong University of Science and Technology</i></p> </div> </div>
10:30 – 11:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 1 - A2</p> <p>Understanding Cancer Stemness in Liver Cancer – From Regulation to Translational Applications</p> <p>Professor Irene Oi-lin NG <i>The University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 2 - B2</p> <p>Enhanced Separation and Sludge Refinery for Wastewater Treatment – Solving the Nexus of Pollution Control and Resource Recovery in Mega Cities</p> <p>Professor Xiao-yan LI <i>The University of Hong Kong</i></p> </div> </div>
11:15 – 11:30	Tea Break
11:30 – 12:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 1 - A3</p> <p>Gastric Cancer Genomics and Beyond – Moving from Patient Samples to 3D Organoid Cultures for Integrative Genomics Analysis, Drug Sensitivity Assays, Cell Biological Studies and Animal Models</p> <p>Professor Suet-yi LEUNG <i>The University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 2 - B3</p> <p>Creation of Rechargeable Electron-fuels for Stationary Power Supplies and Electric Vehicles</p> <p>Professor Minhua SHAO <i>The Hong Kong University of Science and Technology</i></p> </div> </div>
12:15 – 13:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 1 - A4</p> <p>Translational Studies for Elucidating the Tumor Heterogeneity and Molecular Evolution in Metastatic Gastrointestinal Tract Cancers for Personalized Medicine</p> <p>Professor Simon Ying-kit LAW <i>The University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 2 - B4</p> <p>Photochemical Air Pollution in Highly Urbanized Subtropical Regions: From Micro Environments to Urban-terrestrial-oceanic Interactions</p> <p>Professor Tao WANG <i>The Hong Kong Polytechnic University</i></p> </div> </div>
13:00 – 14:30	Lunch Break
14:30 – 15:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 1 - A5</p> <p>Functional Bone Regeneration in Challenging Bone Disorders and Defects</p> <p>Professor Ling QIN <i>The Chinese University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 4 - B5</p> <p>A Compact System for Terahertz Imaging and Spectroscopy</p> <p>Professor Chi-hou CHAN <i>City University of Hong Kong</i></p> </div> </div>
15:15 – 16:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>THEME 4 - A6</p> <p>Big Data for Smart and Personalized Air Pollution Monitoring and Health Management</p> <p>Professor Victor On-kwok LI <i>The University of Hong Kong</i></p> </div> <div style="width: 48%;"> <p>THEME 4 - B6</p> <p>Learning and Assessment for Digital Citizenship</p> <p>Professor Nancy Wai-ying LAW <i>The University of Hong Kong</i></p> </div> </div>

Poster / Model Display Room 103, Meng Wah Complex, The University of Hong Kong

LANGUAGE: ENGLISH

*Theme-based Research Scheme projects showcased in Public Symposium 2022 are funded by the Research Grants Council in the Sixth and Seventh Round exercises from 2016/17 to 2017/18

研討會程序*

時間	程序
9:00 – 9:15	開幕致詞：研究資助局主席 黃玉山教授
9:15 – 9:45	主題研究計劃撥款機制簡介：協作研究項目督導委員會主席 余劭離教授
	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #4a4a4a; color: white; padding: 5px; border-radius: 5px;">1 號講堂</div> <div style="background-color: #4a4a4a; color: white; padding: 5px; border-radius: 5px;">2 號講堂</div> </div>
9:45 – 10:30	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題一 - A1</p> <p>血漿脫氧核糖核酸作為癌症檢測的平台</p> <p>盧煜明教授 <i>香港中文大學</i></p> </div> <div style="width: 48%;"> <p>主題二 - B1</p> <p>香港及鄰近海域富營養化，缺氧及生態後果的診斷和預測：物理 - 生物地球化學 - 污染耦合研究</p> <p>甘劍平教授 <i>香港科技大學</i></p> </div> </div>
10:30 – 11:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題一 - A2</p> <p>了解肝癌腫瘤的幹細胞特性：從調節機制到轉化應用</p> <p>吳呂愛蓮教授 <i>香港大學</i></p> </div> <div style="width: 48%;"> <p>主題二 - B2</p> <p>高效濃縮分離和污泥精煉協同新技術實現城市水污染控制和資源回收</p> <p>李曉岩教授 <i>香港大學</i></p> </div> </div>
11:15 – 11:30	小休
11:30 – 12:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題一 - A3</p> <p>胃癌基因組學與發展：以病人活組織培養三維類器官細胞團作整合性基因組分析、藥物敏感測定、細胞生物學及動物模型研究</p> <p>梁雪兒教授 <i>香港大學</i></p> </div> <div style="width: 48%;"> <p>主題二 - B3</p> <p>用於可再生能源供電站及電動汽車的電燃料儲能技術基礎研究</p> <p>邵敏華教授 <i>香港科技大學</i></p> </div> </div>
12:15 – 13:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題一 - A4</p> <p>闡明轉移性胃腸道癌細胞的異質性和分子進化過程以促進其個體化醫療的研究</p> <p>羅英傑教授 <i>香港大學</i></p> </div> <div style="width: 48%;"> <p>主題二 - B4</p> <p>亞熱帶城市群區域大氣光化學污染：從微環境到城市 - 陸地 - 海洋的相互作用</p> <p>王韜教授 <i>香港理工大學</i></p> </div> </div>
13:00 – 14:30	午膳
14:30 – 15:15	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題一 - A5</p> <p>難愈骨疾病和骨缺損的功能性再生研究</p> <p>秦嶺教授 <i>香港中文大學</i></p> </div> <div style="width: 48%;"> <p>主題四 - B5</p> <p>用於太赫茲光譜和成像的小型化系統設計</p> <p>陳志豪教授 <i>香港城市大學</i></p> </div> </div>
15:15 – 16:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>主題四 - A6</p> <p>大數據為本智能及個人化空氣污染監測和健康管理</p> <p>李安國教授 <i>香港大學</i></p> </div> <div style="width: 48%;"> <p>主題四 - B6</p> <p>數碼世代公民素養的學習和評估</p> <p>羅陸慧英教授 <i>香港大學</i></p> </div> </div>

海報 / 模型展示 香港大學明華綜合大樓 103 室

活動將以英語進行

* 本研討會所有研究項目均為研究資助局在第六輪 (2016/17 年度) 和第七輪 (2017/18 年度) 主題研究計劃撥款資助的項目。

Theme-based Research Scheme (TRS) aims to focus academic research efforts of University Grants Committee funded universities on themes of strategic importance to the long-term development of Hong Kong.

There are four designated research themes under the TRS. Under the four research themes, there are 20 grand challenge topics. The themes and grand challenge topics are as follows:

Theme 1 Understanding Diseases and Disease Prevention

1. Infectious Diseases
2. Understanding Disease Mechanisms to Improving Health
3. Stem Cells and Regenerative Medicine
4. Disease Prevention and Management

Theme 2 Developing a Sustainable Environment

1. Water Pollution and Water Treatment
2. Sustainable Built Environment
3. Energy Efficiency, Conservation, Conversion and Harvesting
4. Air Quality
5. Food Production and Food Security

Theme 3 Enhancing Hong Kong's Strategic Position as a Regional and International Business Centre

1. Hong Kong's Future as an International Financial Centre
2. Promoting Hong Kong's Business through Networking Capability
3. Promoting Hong Kong as a Centre of Excellence for Business Services
4. Innovation Ecology and Business Creation in Knowledge Economy
5. Financial Technologies (FinTech) and Regulatory Technologies (RegTech)

Theme 4 Advancing Emerging Research and Innovations Important to Hong Kong

1. Big Data and Artificial Intelligence
2. Imaging, Robotics and Smart Manufacturing
3. Urban Infrastructure and Smart City
4. Education and Digital Citizenship
5. Quantum Technology
6. Integrated Circuits

The maximum duration of a project is five years. The ceiling of direct project cost per project to be awarded by the Research Grants Council is \$75 million.

主題研究計劃的目的是集中大學教育資助委員會資助大學的學術研究力量，對香港長遠發展具策略重要性的主題進行研究。

主題研究計劃設有四個研究主題，四個主題下共設有 20 個重大挑戰題目：

主題一 剖析疾病及疾病預防

1. 傳染病
2. 剖析發病機制以保障健康
3. 幹細胞與再生醫學
4. 疾病預防與管理

主題二 建設可持續發展的環境

1. 水污染及水處理
2. 可持續建築環境
3. 能源效率、節約、轉化及採集
4. 空氣質素
5. 食物生產及食物安全

主題三 加強香港作為地區及國際商業中心的策略地位

1. 香港作為國際金融中心的未來發展
2. 透過網絡能力推動香港商業發展
3. 推廣香港成為卓越的商業中心
4. 知識經濟中的創新生態與商業創意
5. 金融科技及監管科技


主題四 促進對香港起重要作用的新興研究及創新項目


1. 大數據及人工智能
2. 造像、機械人技術及智能製造
3. 城市基礎建設及智慧城市
4. 教育及數碼公民身分
5. 量子技術
6. 集成電路

每個項目的年期最長為五年，研究資助局資助金額上限為 7 千 5 百萬元（按直接項目成本計算）。

FREE ADMISSION ALL ARE WELCOME
免費入場 歡迎參加

For event details and registration, please visit
有關活動詳情及報名方法，請瀏覽網頁：
<https://trs222.hku.hk>





<http://www.maps.hku.hk/>

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