Theme-based Research Scheme (TRS)

| HKU's Participation in 40 Funded Projects Coordinated by Other Local Universities (including 2 projects transferred from HKU to other universities post-award) | | | | | |
|--|--|--|--------------------------------------|---|--|
| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* | |
| Fourteenth (2024/25) | A Digital Twin for Enhancing Coastal Resilience against Extreme Storm Surges in Hong Kong | ТВС | 2025-2029 | <u>HKUST</u> , HKU, PolyU | |
| | Enhancing Hong Kong's Role in Sustainable Supply Chain Finance via Technology Transformation | TBC | 2025-2029 | <u>HKUST</u> , CityU, HKU, PolyU | |
| | Social Robots with Embedded Large Language Models Releasing Stress among the Hong Kong Population | ТВС | 2025-2029 | <u>PolyU</u> , CUHK, EdUHK, HKBU, HKU, HKUST | |
| Thirteenth (2023/24) | Diamond-based Multi-modal Quantum Sensing of Nanomagnetism | Professor Y. Lu (Mechanical Engineering) Professor X. Cui (Chemistry) Professor G. Chiribella (Computer Science) | 2024 | CityU, <u>CUHK</u> , HKU, HKUST | |
| | INTACT: Intelligent Tropical-storm-resilient System for Coastal Cities | Professor X. Deng (Civil Engineering) | 2024-2028 | CityU, HKU, HKUST, <u>PolyU</u> | |
| | High-performance Collaborative Edge Computing Enabling Smart City Applications: Framework and Methodologies | Professor C. Wu (Computer Science) | 2024-2028 | CUHK, HKU, HKUST, <u>PolyU</u> | |
| | Single-Cell Multi-Omics Study of Atherosclerotic Vascular Disease: Narrowing the Gap Between Bench and Bedside | Professor A. Xu (Medicine) Professor K.H. Yiu (Medicine) | 2024-2028 | <u>CityU</u> , CUHK, HKBU, HKU, HKUST | |

| | | HKU Co-Principal | Indicative | 5 |
|----------------------|--|---|------------------------|---|
| Round | Project Title | Investigator(s)/ Co-Investigator(s) | Project Time- Frame | Participating UGC- Funded Institutions |
| | Digital Twin-empowered Landslide Emergency Risk Management | Professor J.J.J. Jiao (Earth Sciences) Professor B. Huang (Geography) | 2024-2028 | CUHK, HKU, <u>HKUS</u> |
| Twelfth (2022/23) | Multi-disciplinary Approaches to Tackle the Global Public Health Threat of Hypervirulent and Multidrug-resistant Klebsiella Pneumoniae | Professor X.C. Li (Chemistry) | 2023-2027 | <u>CityU</u> , CUHK, HKU, HKUST |
| | Unravelling the Black Box between Air Pollution and Public Health for Transformative Air Quality Management | Dr. G. He (Business and Economics) Dr. L. Tian (School of Public Health) | 2023-2027 | CityU, CUHK, HKU, HKUST, <u>PolyU</u> |
| | Institute of Medical Intelligence and XR | Dr. J.H.W. Hsiao (Psychology) Professor G. Yin (Statistics and Actuarial Science) Dr. L. Yu (Statistics and Actuarial Science) | 2023-2027 | <u>CUHK</u> , HKU, HKUST PolyU |
| | SynchroHub: Cyber-Physical Internet for Synchronizing Cross-Border Logistics Hubs in the Greater Bay Area (GBA)# | Professor Z.M. Shen (Industrial and Manufacturing Systems Engineering) Professor S.C. Wong (Civil Engineering) Professor X. Yuan (Mathematics) Dr. W. Huang (Industrial and Manufacturing Systems Engineering) Dr. R.Y. Zhong (Industrial and Manufacturing | 2023-2027 | <u>PolyU</u> , HKU |

| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* |
|-----------------------|--|--|--------------------------------------|--|
| | | Systems Engineering) Dr. F. Zhang (Industrial and Manufacturing Systems Engineering) Dr. Y.H. Kuo (Industrial and Manufacturing Systems Engineering) | | |
| Eleventh (2021/22) | Stem Cell-niche Interactions in Tissue Maintenance and Engineering | Professor Z. Zhou (Biomedical Sciences) | 2022-2026 | CUHK, HKU, <u>HKUST</u> |
| | Healthy and Resilient City with Pervasive LoCHs | Professor W.W. Lu (Real Estate and Construction) Dr. F. Xue (Real Estate and Construction) Professor B.S. Tang (Urban Planning and Design) Dr. J. Huang (Urban Planning and Design) Dr C. Ren (Architecture) | 2022-2026 | CityU, HKU. HKUST, <u>PolyU</u> |
| | Developing Hong Kong as a Global Green Finance Centre | Dr. G. He (Business and Economics) | 2022-2026 | CUHK, HKU, <u>HKUST,</u> PolyU |
| | Building Platform Technologies for Symbiotic Creativity in Hong Kong | Professor W.P. Wang (Computer Science) | 2022-2026 | CityU, <u>HKUST</u> , HKU |

| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* |
|---------------------|---|---|--------------------------------------|--|
| Tenth (2020/21) | Aptamer: Molecular Insight and Translational Theranostics | Professor J.A. Tanner (Biomedical Sciences) Dr. C. Qian (Biomedical Sciences) | 2021-2025 | CUHK, <u>HKBU</u> , HKU |
| | Wireless Power Transfer: The Next Stage# | Dr. C. K. Lee (Electrical and Electronic Engineering) Professor S.C. Tan (Electrical and Electronic Engineering) Dr. Y. Hou (Electrical and Electronic Engineering) | 2021-2025 | CityU, CUHK, HKU, <u>PolyU</u> |
| Ninth (2019/20) | A Paradigm-shifting, Fully-integrated, Compact Wastewater-to-resource Facility (WWRF) | Professor T. Zhang (Civil Engineering) | 2020-2024 | CityU, CUHK, HKU, <u>HKUST</u> , PolyU |
| | SureFire: Smart Urban Resilience and Firefighting | Professor G.Q. Huang (Industrial and Manufacturing Systems Engineering) | 2020-2024 | HKU, <u>PolyU</u> |
| Eighth (2018/19) | A Stem Cell Approach to Dissect the Molecular Basis of Neurodegenerative Diseases | Dr. K.O. Lai (Biomedical Sciences) | 2019-2023 | CityU, CUHK, HKU, <u>HKUST</u> |
| | Sustainable Marine Infrastructure Enabled by the Innovative Use of Seawater Sea-Sand Concrete and Fibre-Reinforced Polymer Composites | Professor A.K.H. Kwan (Civil Engineering) | 2019-2023 | CityU, HKU, HKUST, <u>PolyU</u> |
| | Contributing to the Development of Hong Kong into a Global Fintech Hub | Dr. P.L.H. Yu (Statistics and Actuarial Science) | 2019-2022 | CityU, CUHK, HKU, <u>HKUST</u> |
| | Image-guided Automatic Robotic Surgery | Dr. K.W. Kwok (Mechanical Engineering) | 2018-2023 | CityU, <u>CUHK</u> , HKU |

| HKU's Participation in 40 Funded Projects Coordinated by Other Local Universities (including 2 projects transferred from HKU to other universities post-award) | | | | | |
|--|--|--|--------------------------------------|--|--|
| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* | |
| Seventh (2017/18) | <u>Functional Bone Regeneration in Challenging Bone Disorders</u> <u>and Defects</u> | Professor W.W. Lu (Orthopaedics and Traumatology) | 2017-2022 | CityU, <u>CUHK</u> , HKU, PolyU | |
| | Creation of Rechargeable Electron-fuels for Stationary Power Supplies and Electric Vehicles | Professor G.K.Y. Chan (Chemistry) | 2018-2022 | CUHK, HKU, <u>HKUST</u> , PolyU | |
| | Photochemical Air Pollution in Highly Urbanized Subtropical Regions: from Micro Environments to Urban-terrestrial-oceanic Interactions | Dr. C.H. Liu (Mechanical Engineering) | 2018-2022 | CUHK, HKU, HKUST, <u>PolyU</u> | |
| Sixth (2016/17) | Plasma DNA as a Platform Technology for Cancer Detection | Professor Y.L. Kwong (Medicine) | 2016-2021 | <u>CUHK</u> , HKU | |
| | <u>Diagnosis and Prognosis of Intensifying Eutrophication,</u> <u>Hypoxia and the Ecosystem Consequences around Hong Kong</u> <u>Waters: Coupled Physical-biogeochemical-pollution Studies</u> | Dr. D.M. Baker (Biological Sciences) Dr. J. Chen (Civil Engineering) | 2017-2021 | CityU, CUHK, HKU, <u>HKUST</u> , PolyU | |
| | A Compact System for Terahertz Imaging and Spectroscopy | Professor K.K.Y. Wong (Electrical and Electronic Engineering) Dr. N.P.Y. Lee (Surgery) | 2017-2021 | <u>CityU</u> , HKU | |
| Fifth (2015/16) | Centre for Research into Circulating Fetal Nucleic Acids | Professor W.C.S. Lau (Medicine) | 2016-2020 | <u>CUHK</u> , HKU | |
| | Understanding Debris Flow Mechanisms and Mitigating Risks for a Sustainable Hong Kong | Dr C.H. Hau (Biological Sciences) Dr S.D. Nunes Lourenco (Civil Engineering) | 2016-2020 | CityU, <u>HKUST</u> , HKU | |

| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* |
|---------------------|---|--|--------------------------------------|---|
| | Safety, Reliability, and Disruption Management of High Speed Rail and Metro Systems | Professor S.C. Wong (Civil Engineering) | 2016-2020 | <u>CityU</u> , CUHK, PolyU, HKU |
| Fourth (2014/15) | Delivering 21st Century Healthcare in Hong Kong – Building a Quality-and-Efficiency Driven System | Professor G.Q. Huang (Industrial and Manufacturing Systems Engineering) Dr. K.L. Or (Industrial and Manufacturing Systems Engineering) | 2014-2019 | <u>CityU</u> , LU, CUHK, PolyU, HKUST, HKU |
| Third (2013/14) | Systematic Development of Molecular Targets for Nasopharyngeal Carcinoma | Professor A.S.T. Wong (Biological Sciences) Professor G.S.W. Tsao (Biomedical Sciences) Dr. S.T. Cheung (Surgery) Dr. W.Y.V. Lui (Pharmacology and Pharmacy) | 2014-2018 | <u>CUHK</u> , HKU |
| | Smart Solar Energy Harvesting, Storage, and Utilization | Professor D.J. Hill (Electrical and Electronic Engineering) | 2014-2018 | <u>CUHK</u> , PolyU, HKUST, HKU |
| Second (2012/13) | Stem Cell Strategy for Nervous System Disorders | Professor S.K. Chung (Biomedical Sciences) Professor Z. Zhou (Biomedical Sciences) | 2012-2017 | CUHK, PolyU, <u>HKUST,</u> HKU |
| | Cost-effective and Eco-friendly LED System-on-a-chip (SoC) | <u>Dr. H.W. Choi</u> (Electrical and Electronic Engineering) | 2012-2017 | HKUST, HKU |

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|--|--|--|--------------------------------------|--|--|
| Round | Project Title | HKU Co-Principal Investigator(s)/ Co-Investigator(s) | Indicative Project Time- Frame | Participating UGC- Funded Institutions* | |
| First (2011/12) | The Liver Cancer Genome Project: Translating Genetic <u>Discoveries to Clinical Benefits</u> | Professor X. Guan (Clinical Oncology) | 2011-2016 | <u>CUHK</u> , HKUST, HKU | |
| | Transforming Hong Kong's Ocean Container Transport Logistics Network | Dr. J.J. Wang (Geography) | 2011-2016 | CityU, <u>HKUST</u> , HKU | |

^{*}The underlined institutions are the co-ordinating institutions for the purpose of grant administration.

July 15, 2024

[#]Project coordination transferred from HKU to another university post-award