

**Research Impact Fund 2018/19
List of Funded Projects**

Project no.	Project Title	<u>Coordinating University / Collaborating University(ies)</u>	Duration (months)	Budget to be funded by the RGC* (\$) (exclusive of on-costs)
R1020-18	Development of an integrated microfluidics system for multi-level high-content screening of anti-tumor drugs	<u>CityU</u> / HKU	36	5,977,600
R2010-18	Promoting healthy ageing through light volleyball (LVB) promotion in Hong Kong and Mainland China	<u>HKBU</u> / CUHK, HKU	54	5,180,389
R2018-18	Development and evaluation of the effectiveness of an online cognitive behavioral intervention program for Hong Kong people with social anxiety disorder	<u>HKBU</u>	48	4,400,359
R4005-18	Plant Bioreactor for Pharmaceutical Proteins	<u>CUHK</u> / PolyU	60	5,000,000
R4012-18	Translating multi-omic discoveries to transform diabetes care and reduce diabetic complications	<u>CUHK</u> / HKUST	60	8,400,000
R4017-18	Patient-Derived Preclinical Models for Translational Cancer Research: a Hong Kong-based Biotechnology Centre for Genomic Medicine	<u>CUHK</u> / CityU, HKUST, HKU	60	9,800,000
R4022-18	A wearable for post-stroke rehabilitative multi-muscle stimulation inspired by the natural organization of neuromuscular control	<u>CUHK</u> / CityU, PolyU	48	3,150,000
R4032-18	Providing Security for IoT Systems: Memory-Safe Device Driver Kernels, Dynamic Taint Analysis Toolkits and Algebraic-topology Theory	<u>CUHK</u>	48	3,148,320
R4046-18	Increasing the resilience to the health impacts of extreme weather on elderly people under future climate change	<u>CUHK</u> / CityU, HKUST, HKU	36	6,742,960
R5001-18	Next Generation Digital Camera Imaging: Human Centered Image Reconstruction, Enhancement and Evaluation	<u>PolyU</u> / CUHK, HKU	48	5,128,368

Annex

Project no.	Project Title	<u>Coordinating University / Collaborating University(ies)</u>	Duration (months)	Budget to be funded by the RGC* (\$) (exclusive of on-costs)
R5007-18	New prefabricated composite pavement systems for sustainable and smart-city development of Hong Kong: Key scientific and engineering solutions	<u>PolyU</u> / CityU, HKU	48	3,764,320
R5011-18	Development of a colistin / adjuvant antimicrobial regimen that exhibits low toxicity and high efficacy in combating multidrug-resistant bacterial pathogens	<u>PolyU</u> / HKU	48	5,959,520
R5017-18	Early Detection of Progressive Adolescent Idiopathic Scoliosis and Optimization for Non-surgical Treatments using Novel 3D Ultrasound Imaging	<u>PolyU</u> / CUHK, HKU	60	8,400,000
R5020-18	Enhancing safety, punctuality and ride comfort of railway transportation: From local metro system to global high-speed rail network	<u>PolyU</u> / CityU	48	5,892,320
R5029-18	Reliability-based Intelligent Transportation Systems in Urban Road Network with Uncertainty	<u>PolyU</u> / CityU, HKU	36	6,340,600
R5032-18	Effectiveness of Bright Light Therapy, Myopic Defocus, Atropine and the Combinations for Controlling Myopic Eye Growth in Schoolchildren: A Randomized Control Trial	<u>PolyU</u> / HKU	48	8,050,000
R5034-18	Tackling Grand Challenges in Food Safety: A Big Data and IoT Enabled Approach	<u>PolyU</u> / CUHK, HKUST	60	5,423,600
R5037-18	Study of Super-fast Large-area Economical Marine Reclamations for Housing and Infrastructural Developments in the Guangdong-Hong Kong-Macau Greater Bay Area	<u>PolyU</u> / HKU	60	9,876,160
R5050-18	Context-dependent modulation of autophagy pathway as novel complementary approach for cancer therapy	<u>PolyU</u>	48	6,184,080
R6008-18	Center for Wide-bandgap Semiconductor	<u>HKUST</u> / CityU	48	7,605,920

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Project no.	Project Title	<u>Coordinating University / Collaborating University(ies)</u>	Duration (months)	Budget to be funded by the RGC* (\$) (exclusive of on-costs)
	Power Electronics Research			
R6011-18	Real-time Airborne Particulate Matter Pollution Source Identification	<u>HKUST</u>	48	6,291,740
R6015-18	Broadband absorbers for microwaves and ultra-low frequency mechanical waves	<u>HKUST</u>	60	9,727,950
R6021-18	Understanding and Improving the Stability of Organic Photovoltaics - Towards a Low-Cost and Commercially Viable Photovoltaic Technology	<u>HKUST</u>	36	6,650,000
R7017-18	Tools to Inform Policy: Chinese communities' Action in Response to Dementia (TIP-CARD)	<u>HKU</u> / CUHK	36	3,006,710
R7027-18	“Modular Integrated Construction 2.0+” for Quality and Efficient Tall Residential Buildings through Advanced Structural Engineering, Innovative Building Materials and Smart Project Delivery	<u>HKU</u> / PolyU, <u>HKUST</u>	60	9,881,427
R7033-18	Antimicrobial resistance comprehensive etiology Study (ACES)	<u>HKU</u>	36	9,940,000
R7054-18	Balancing the Opportunities and Risks of Financial Technology: FinTech Regulation and Policy	<u>HKU</u> / CUHK	48	2,945,582
R7066-18	Novel ultra-strong and ductile steel at low cost	<u>HKU</u>	48	3,500,000
R7070-18	Combination approach to combat metallo- β -lactamase positive superbugs	<u>HKU</u>	60	9,566,087
R7072-18	Multiphase Materials by All-aqueous Microfluidics for Biomedical Applications	<u>HKU</u>	48	6,998,992

Total: 30 projects

* The RGC funds 70% of the project cost while university / partner(s) will match the remaining 30% of the project cost.

Legend

CityU: City University of Hong Kong

HKBU: Hong Kong Baptist University
CUHK: The Chinese University of Hong Kong
PolyU: The Hong Kong Polytechnic University
HKUST: The Hong Kong University of Science and Technology
HKU: The University of Hong Kong