

THE UNIVERSITY OF HONG KONG
LI KA SHING FACULTY OF MEDICINE

RGC General Research Fund/Early Career Scheme (GRF/ECS) 2020-21

List of Awarded Projects

	Funding Scheme	Name of Principal Investigator	Department/School	Project Title	Grand Total Awarded (HK\$)
1	GRF	Dr. A.J. Liu	Department of Anaesthesiology	Generation of spinal dorsal GABAergic neurons from human urine cells by defined transcriptional factors for the treatment of neuropathic pain in spinal cord injury	996,285
2	GRF	Dr. G.T.C. Wong	Department of Anaesthesiology	Investigating the role of adiponectin in sevoflurane induced cognitive dysfunction in an obese animal model	996,205
3	GRF	Professor B. Lu	Department of Clinical Oncology	Autoimmunity in Cardiopulmonary Toxicities from Radiotherapy and Immunotherapy	996,285
4	GRF	Dr. H.C.C. Chang	Department of Diagnostic Radiology	Development of Robust and Motion-immune 3D Diffusion Magnetic Resonance Imaging Technique for High-resolution Brain Connectome Mapping in Challenging Populations	996,285
5	GRF	Dr. K.M. Ng	Department of Medicine	Therapeutic potential of Synthetic Chemically Modified mRNA to ameliorate cardiac dysfunction associated with Danon disease caused by monogenic LAMP2 mutation.	996,285
6	GRF	Dr. K.S.M. Cheung	Department of Medicine	Effect of empagliflozin on liver fat in non-alcoholic fatty liver disease patients without diabetes mellitus: a randomized, double-blind, placebo-controlled trial	893,053
7	GRF	Dr. S.S.Y. Yung	Department of Medicine	Extra Domain A-spliced Fibronectin Variant in Peritoneal Inflammation and Fibrosis	996,285
8	GRF	Dr. X. Hui	Department of Medicine	Androgen regulates white adipose tissue remodelling via suppression of PRDM16	1,145,727
9	GRF	Professor A. Xu	Department of Medicine	The mechano-sensitive ion channel Piezo1 balances the conversion of mesenchymal stem cells to osteoblasts and bone marrow adipocytes	1,195,542
10	GRF	Professor D.T.M. Chan	Department of Medicine	Cluster of Differentiation 14 in Tubulo-interstitial Injury of Chronic Kidney Disease	1,195,468
11	GRF	Professor F.N.I. Hung	Department of Medicine	A double blind randomized controlled trial on baloxavir marboxil and flufenamic acid combination for severe hospitalized influenza infection	1,161,819
12	GRF	Professor S.C.W. Tang	Department of Medicine	Role of protease-activated receptor-1 (PAR-1) in AKI to CKD transition	996,285

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13	ECS	Dr. D. Sridhar	Department of Microbiology	Evaluation of vaccines against Rat Hepatitis E Virus infection, an emerging threat to human health, in rat models.	986,520
14	GRF	Dr. J. Chu	Department of Microbiology	Differential transcriptional responses between human primary macrophages and dendritic cells identified transmembrane serine protease 13 (TMPRSS13) as a novel host dependency factor for Zika virus infection.	996,285
15	GRF	Dr. J. Zhou	Department of Microbiology	Establishing Human Alveolar Organoids for Evaluating Infectivity and Pathogenicity of Influenza Virus	1,195,542
16	GRF	Dr. J.F.W. Chan	Department of Microbiology	Deciphering the novel role of casein kinase 1 alpha as a key regulator of Middle East respiratory syndrome coronavirus infection with quantitative phosphoproteomics	1,076,894
17	GRF	Dr. K.H. Kok	Department of Microbiology	Functional role of PTBP1 in Middle East respiratory syndrome-coronavirus infection	1,147,218
18	GRF	Dr. M.L. Yeung	Department of Microbiology	Investigation of BBSome-mediated ciliogenesis during enterovirus infection	1,080,769
19	GRF	Dr. R.Y.T. Kao	Department of Microbiology	Unraveling the role of staphyloxanthin in Staphylococcus aureus chronic infections	1,187,133
20	GRF	Professor S.K.P. Lau	Department of Microbiology	Elucidating the molecular pathogenesis and mechanisms of hypervirulence in virus-infected Talaromyces marneffeii	1,195,482
21	GRF	Professor Z. Chen	Department of Microbiology	Combined BiIA-SG and anti-TRABD2A antibody for HIV-1 Functional Cure	1,195,502
22	GRF	Dr. C.K.F. Lee	Department of Obstetrics and Gynaecology	The use of small molecules in modulating human endometrial receptivity and embryo implantation	1,194,625
23	GRF	Dr. C.L. Lee	Department of Obstetrics and Gynaecology	The role of endoglandular trophoblast in placenta development and its association with preeclampsia	1,182,701
24	GRF	Professor H.Y.S. Ngan	Department of Obstetrics and Gynaecology	Deciphering the Dichotomous Effects and Molecular Mechanisms of BCL2A1 in Regulating Ovarian Cancer Dissemination	996,285
25	GRF	Professor K. Liu	Department of Obstetrics and Gynaecology	Studies of a novel meiosis-specific protein 432K in meiosis cell cycle and germ cell development in mice	996,285

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26	GRF	Dr. K.Y.H. Kwan	Department of Orthopaedics and Traumatology	Psychological impact of adolescent idiopathic scoliosis patients and their caregivers-a longitudinal study using dyadic data analysis	732,850
27	GRF	Dr. V.Y.L. Leung	Department of Orthopaedics and Traumatology	Establishing a genetically inducible human-like lumbar disc degeneration model in mice	901,837
28	GRF	Dr. W. Yang	Department of Paediatrics and Adolescent Medicine	Impact of Genetic Factors on the Subphenotypes of Systemic Lupus Erythematosus and B cell-related Endophenotypes	996,285
29	GRF	Professor Y.F. Cheung	Department of Paediatrics and Adolescent Medicine	Human Induced Pluripotent Stem Cell Modeling of the Hypoplastic Right Heart Syndrome of Tricuspid Atresia	1,184,831
30	GRF	Dr. C.C.L. Wong	Department of Pathology	Hypoxia-inducible factor (HIF) orchestrates adenosine metabolism to promote liver cancer development	1,195,542
31	GRF	Dr. C.M. Wong	Department of Pathology	The role of FACT complex in the hypoxia adaptation in liver cancer	1,195,422
32	GRF	Dr. J.W.P. Yam	Department of Pathology	Tumor extracellular vesicle-mediated signaling activates ketolysis to fuel cancer cell growth and metastasis in liver cancer	1,195,024
33	GRF	Professor U.S. Khoo	Department of Pathology	Molecular mechanism of BQ323636.1, a novel splice variant of NCOR2 and its significance on treatment of estrogen receptor positive breast cancer.	996,285
34	GRF	Dr. S.L.C. Chui	Department of Pharmacology and Pharmacy	Association between the use of different classes of blood pressure-lowering drugs and risk of incident dementia: a multi-database study	694,305
35	ECS	Dr. W. Wang	Department of Pharmacology and Pharmacy	Low-irradiance red light-triggered drug release for the treatment of retinoblastoma	986,520
36	GRF	Dr. W.H.C. Woo	Department of Pharmacology and Pharmacy	TRIF as a novel mediator of estrogen-regulated hepatic PCSK9 secretion	996,285
37	GRF	Professor I.C.K. Wong	Department of Pharmacology and Pharmacy	Diamond-A: DIAbetes in Mother and Off-spring with Neurodevelopmental Disorder – ADHD	837,006
38	GRF	Professor Y. Wang	Department of Pharmacology and Pharmacy	Adiponectin-expressing thymic Treg for adoptive immunotherapy in obesity and metabolic diseases	996,285

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39	GRF	Dr. K.F. Chung	Department of Psychiatry	Adjunctive triple chronotherapy (combined total sleep deprivation, sleep phase advance, and bright light therapy) for non-seasonal depression: a randomized-controlled trial to examine efficacy and clinical, circadian and genetic markers	1,092,195
40	GRF	Dr. W.C. Chang	Department of Psychiatry	A longitudinal multimodal neuroimaging and cognitive investigations in first-episode schizophrenia and first-episode bipolar disorder: a prospective 1-year follow-up study	996,285
41	GRF	Dr. A.C.Y. Chan	Department of Surgery	Clinical outcome and future liver remnant regenerative response in laparoscopic versus open ALPPS: a randomized clinical trial.	829,401
42	GRF	Dr. C.L.T. Wong	Department of Surgery	A pilot study of auxiliary living donor liver transplant with portal vein ligation and staged hepatectomy: a porcine model	996,285
43	GRF	Dr. E.S.W. Ngan	Department of Surgery	Define the core regulomes underlying Hirschsprung pathogenesis using single-cell transcriptomic analysis of human iPSC-derived enteric neural crest	996,285
44	GRF	Dr. S.M. Tang	Department of Surgery	A novel bioinformatics framework for curating and analyzing structural variations from whole genome sequencing data	906,515
45	GRF	Dr. V.C.H. Lui	Department of Surgery	Therapy development in Biliary Atresia based on tackling beta-amyloid accumulation	1,189,388
46	GRF	Professor P.K.H. Tam	Department of Surgery	Modelling disease mechanisms and risks of congenital bile-duct dilatation using whole exome sequencing and SNP array data	996,285
47	GRF	Dr. B. Gao	School of Biomedical Sciences	Elucidating the role of USP6/32 in Wnt/PCP signaling	1,195,542
48	GRF	Dr. C. Qian	School of Biomedical Sciences	Structural and Functional Dissection of a Novel TRIM28 Protein Complex	1,195,542
49	GRF	Dr. C.H. Yu	School of Biomedical Sciences	Unraveling the mechanism of PI(3,4)P2-mediated membrane invagination and cell migration	1,195,542
50	GRF	Dr. C.S.W. Lai	School of Biomedical Sciences	The role of KIF5B in cue- and location-specific dendritic spine plasticity in fear learning and extinction	996,285

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51	ECS	Dr. G.S.H. Ling	School of Biomedical Sciences	The effects of chronic type I interferon (IFN-I) signaling on CD8+T cell metabolism and exhaustion	986,520
52	GRF	Dr. K.M. Yao	School of Biomedical Sciences	Investigating GPR161 as receptor of secreted PDZD2 in the negative regulation of Hedgehog signaling during early development	1,195,542
53	GRF	Dr. K.O. Lai	School of Biomedical Sciences	The role of the stress granule protein G3BP1 in regulating protein synthesis and dendritic spine maturation in neuron	1,194,573
54	GRF	Dr. L.W.T. Lim	School of Biomedical Sciences	Investigating the neurogenesis-dependent and independent mechanisms of antidepressant-like effects by non-invasive transcorneal electrical stimulation in an animal model of depression.	1,194,744
55	GRF	Dr. M.C.H. Cheung	School of Biomedical Sciences	A nuclear form of RhoGAP Deleted in Liver Cancer 1 (DLC1) regulates neural crest specification in a RhoGAP-independent manner	996,285
56	GRF	Dr. R. Jauch	School of Biomedical Sciences	The molecular basis for the pleiotropic functions of SOX17 in early human development	1,195,123
57	ECS	Dr. S.C. Ti	School of Biomedical Sciences	Dissecting the effects of platelet disease-related α 4A/ β 1-tubulin mutations on microtubule properties	986,520
58	GRF	Dr. S.K.Y. Ma	School of Biomedical Sciences	AGPAT4: a novel metabolic driver of stemness in hepatocellular carcinoma?	996,285
59	GRF	Dr. S.L.A. Wong	School of Biomedical Sciences	Characterization of engineered guide RNA scaffolds for CRISPR-mediated genome editing	1,559,660
60	GRF	Dr. W.H.J. Wong	School of Biomedical Sciences	Using tumour mutational landscape to resolve the cellular origin of hepatocellular carcinoma at single cell level	1,195,482
61	GRF	Professor G.S. Tsao	School of Biomedical Sciences	Epstein-Barr virus (EBV)-encoded microRNA alters glucose metabolism and drive drug resistance in nasopharyngeal carcinoma cells.	996,285
62	GRF	Professor J.A. Tanner	School of Biomedical Sciences	Da Vinci-Inspired DNA nanostructures targeted with aptamers for cancer therapeutics	996,285
63	GRF	Professor M.H. Sham	School of Biomedical Sciences	The roles of Irx3/Irx5 genes in cochlear non-sensory epithelium development and function	996,285

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64	GRF	Professor M.S.Y. Huen	School of Biomedical Sciences	A Study of The DYRK1A-ARIP4 Complex in DNA Damage Response Control	1,174,620
65	GRF	Professor Q. Hao	School of Biomedical Sciences	Structural and Functional Investigation on the BPTF Bromodomain as a Reader of Histone Crotonylation	996,285
66	ECS	Dr. X. Lin	School of Chinese Medicine	Novel Therapeutic Strategy for Sjogren's Syndrome: Targeting Myeloid-Derived Suppressor Cells	986,520
67	GRF	Professor J. Shen	School of Chinese Medicine	Elucidating the roles of hypochlorous acid (HOCl) in mediating hemorrhage transformation (HT) in ischemic stroke with delayed thrombolytic therapy and its application for therapeutic approach with Acteoside	1,194,296
68	GRF	Dr. J.J.J. Lee	School of Nursing	Ecological momentary intervention for stroke caregivers' psychological support: a randomised controlled trial	734,456
69	ECS	Dr. Y.W.K. Lok	School of Nursing	Effectiveness of a home-based peer support program for Chinese mothers with low breastfeeding self-efficacy to increase the exclusivity and duration of breastfeeding: a randomized controlled trial.	1,000,000
70	GRF	Dr. Y.Y. Kwok	School of Nursing	'Mindfulness in stillness' or 'mindfulness in motion'? A randomized controlled trial on the effects and acceptability of individual mindfulness techniques – meditation and yoga – on anxiety and depression in people with Parkinson's disease	979,252
71	GRF	Dr. J. Quan	School of Public Health	The health burden of social movements in Hong Kong: a mixed methods study	807,128
72	GRF	Dr. K.L. Tsang	School of Public Health	Estimating the infectiousness of asymptomatic influenza virus infections and the consequences for public health control measures	1,122,805
73	ECS	Dr. M.K. Kwok	School of Public Health	Identifying potentially depressed older Chinese adults in the community using machine learning versus conventional risk prediction with an easy-to-implement risk calculator	794,000
74	GRF	Dr. P.M. Siu	School of Public Health	Probing the optimal exercise frequency of high-intensity interval training (HIIT) for alleviating metabolic syndrome in centrally obese adults: A comparative randomized controlled trial	996,285
75	GRF	Dr. Q. Liao	School of Public Health	Can we prime sustainable food choice? A mix-methods study	707,186
76	GRF	Dr. S.M.K. Leung	School of Public Health	Estimating the epidemic size of an ongoing super-spreading coronavirus cluster outbreak in real-time	486,812

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77	GRF	Professor L.L.M. Poon	School of Public Health	Deciphering the role of RNA-RNA interactions between influenza viral segments on reassortment	1,193,507
78	GRF	Professor R. Bruzzone	School of Public Health	Mechanism of unconventional secretion of flaviviruses	1,184,760
Total Number of Successful Projects:					78
Total Amount of Grants Awarded:					HK\$81,338,293.00