

THE UNIVERSITY OF HONG KONG  
LKS FACULTY OF MEDICINE

RGC GRF/ECS 2019-20

List of Awarded Projects

	<b>Funding Scheme</b>	<b>Principal Investigator</b>	<b>Department/School</b>	<b>Project Title</b>	<b>Grand Total Awarded (HK\$)</b>
1.	GRF	Department of Anaesthesiology	Dr Z Xia	Prostaglandin E receptor subtype 4 protects against diabetic cardiomyopathy by modulating cardiac fatty acid metabolism via FOXO1/CD36 signaling	1,157,363
2.	GRF	Department of Clinical Oncology	Dr W Dai	An Epigenetic Landscape Study: Unraveling the Role of Loss of CCCTC-binding Factor CTCF in Epigenetic Dysregulation in Epstein-Barr Virus-positive Nasopharyngeal Carcinoma	1,100,023
3.	GRF	Department of Clinical Oncology	Dr KO Lam	Redefining resectability for colorectal liver metastasis: the role of circulating tumor cells and its molecular characteristics	820,060
4.	GRF	Department of Family Medicine and Primary Care	Professor CLK Lam	Effectiveness of Routine Measurement of Health-Related Quality of Life in Improving the Outcomes of Patients with Musculoskeletal Problems – A Randomized Controlled Trial	1,069,198
5.	GRF	Department of Medicine	Professor DTM Chan	Extra Domain A-Spliced Fibronectin Variant in Tubulo-interstitial Injury of Chronic Kidney Disease	996,192
6.	GRF	Department of Medicine	Dr YY Cheung	Identification of novel susceptibility loci for diabetic retinopathy in Chinese patients with type 2 diabetes: an Asian Screening Array analysis	1,115,228

7.	GRF	Department of Medicine	Dr WYJ Chiu	Enhanced immunotherapy strategy for non-small cell lung cancer (NSCLC) harbouring targetable mutation and failed standard tyrosine kinase inhibitors	422,285
8.	GRF	Department of Medicine	Dr X Hui	Thyroid hormone induces facultative thermogenesis in white adipose tissue through UCP1-independent mechanism	957,916
9.	GRF	Department of Medicine	Professor WK Leung	Role of image enhanced endoscopy or repeated examination of the proximal colon for proximal adenoma detection: A prospective randomised study	795,182
10.	GRF	Department of Medicine	Dr S Liao	Myocardial Tissue Engineering with Cells Derived From Human-Induced Pluripotent Stem Cells and a Native Decellularized Placenta Scaffold	1,081,515
11.	GRF	Department of Medicine	Professor SCW Tang	Foxp2 as a novel transcription factor in chronic kidney disease	875,238
12.	GRF	Department of Medicine	Professor A Xu	The Single Transmembrane Protein $\beta$ -klotho as a Novel Regulator of Insulin Secretion in Pancreatic $\beta$ -cells	1,684,895
13.	GRF	Department of Medicine	Dr TCC Yau	A Phase 1/2 Study of Polo-like Kinase 4 inhibitor CFI-400945 Plus Nivolumab in Advanced Hepatocellular Carcinoma Patients	943,419
14.	GRF	Department of Microbiology	Dr JFW Chan	Unraveling the novel role of casein kinase II in Zika virus infection using a quantitative phosphoproteomics approach	982,013
15.	GRF	Department of Microbiology	Professor H Chen	Study of global gene expression and immune responses induced by infection with NS1 deleted (DelNS1) influenza viruses	892,882

16.	GRF	Department of Microbiology	Professor Z Chen	Mechanism of a $\Delta$ 42PD-1-specific humanized antibody huCH101 in treating HIV/AIDS	1,115,993
17.	ECS	Department of Microbiology	Dr ML Yeung	Structural and molecular characterization of a novel Enterovirus-A71 entry factor, human tryptophanyl-tRNA synthetase (hWARS)	1,189,992
18.	GRF	Department of Microbiology	Professor KY Yuen	Common metabolic pathway harnessed by multiple emerging human viruses as potential broad spectrum antiviral target	1,114,728
19.	GRF	Department of Obstetrics and Gynaecology	Dr CN Chiu	Hormonal regulation of decidual glycodeilin-A glycosylation and its implication in the pathogenesis of early-onset preeclampsia	1,113,869
20.	GRF	Department of Ophthalmology	Dr ACY Lo	Retinal neurodegeneration and retinal ischemia in diabetic retinopathy – association with autophagy dysfunction	1,074,019
21.	GRF	Department of Orthopaedics and Traumatology	Dr SCK Cheung	Functional characterisation of a progenitor-like cell population found in Chondrosarcoma	847,401
22.	GRF	Department of Orthopaedics and Traumatology	Dr VYL Leung	Inflammation induced cell dedifferentiation program in vertebral joint degeneration	919,972
23.	GRF	Department of Orthopaedics and Traumatology	Dr KWK Yeung	Development of light-driven Ag/Ag@AgCl/ZnO nanostructures on titanium surface to assist in situ bacterial killing and bone-implant osseointegration	695,919
24.	GRF	Department of Paediatrics and Adolescent Medicine	Dr P Ip	Long-term impact of child maltreatment: A population-based longitudinal study	809,816

25.	GRF	Department of Paediatrics and Adolescent Medicine	Dr PPW Lee	TSG-6 secreted by human mesenchymal stromal cells downregulate type I interferon response in plasmacytoid dendritic cells and alleviates autoimmune nephritis in a murine model of systemic lupus erythematosus	1,083,952
26.	GRF	Department of Paediatrics and Adolescent Medicine	Professor W Tu	Roles of exosomes-induced IL-17-producing $\gamma\delta$ -T cells in the development and progression of nasopharyngeal carcinoma	1,116,019
27.	GRF	Department of Pathology	Dr LK Chan	The role of RPS6KA3 mutation in modulating the cholesterol biosynthesis in hepatocellular carcinoma	1,106,719
28.	GRF	Department of Pathology	Professor L Lu	Role of interleukin-25 in the pathogenesis of experimental Sjögren's syndrome	1,152,518
29.	GRF	Department of Pathology	Dr CCL Wong	Genome-wide CRISPR-Cas9 library screening in liver cancer identified PTPMT1 as an essential metabolic regulator for survival in hypoxia	1,183,929
30.	GRF	Department of Pathology	Dr JWP Yam	Exosomal NID1 facilitates extrahepatic metastasis by inducing TNFR1 secretion from pulmonary lung fibroblasts	1,114,799
31.	GRF	Department of Pathology	Dr HHN Yan	Unravelling clonal evolution and subclonal heterogeneity of serrated colorectal neoplasia through single-cell RNA sequencing	1,395,005
32.	GRF	Department of Pharmacology and Pharmacy	Dr RLC Hoo	Syndecan-4 (Sdc4) as a key regulator of white adipose tissue browning for energy expenditure	1,113,341

33.	GRF	Department of Pharmacology and Pharmacy	Dr JKW Lam	Bio-inspired PEGylated-KL4 peptide as non-viral vector for pulmonary delivery of nucleic acid-based therapeutics	369,179
34.	GRF	Department of Pharmacology and Pharmacy	Professor ICK Wong	Treatment for Attention Deficit Hyperactivity Disorder and Poisoning : Pharmaco-epidemiological Research (TAPPER)	339,770
35.	GRF	Department of Psychiatry	Dr KW Chan	Proton Magnetic Resonance Spectroscopy Study of Gamma-Aminobutyric Acid, Glutamate and Glutamine concentration of treatment resistance and ultra-treatment resistant schizophrenia	1,009,338
36.	GRF	Department of Psychiatry	Dr KF Chung	Changes in allostatic load after cognitive-behavioral therapy for insomnia: a randomized controlled trial over 12 months in patients with depressive and anxiety disorders and comorbid insomnia	831,938
37.	GRF	Department of Surgery	Dr TT Cheung	Neoadjuvant Immunotherapy with anti-PD1 in Borderline Resectable Hepatocellular Carcinoma	1,074,927
38.	GRF	Department of Surgery	Dr KSH Chok	Prospective Randomized Controlled Trial on Balloon Dilatation and Plastic stenting versus Retrievable metallic stenting for Biliary Anastomotic stricture after Liver Transplantation	933,550
39.	GRF	Department of Surgery	Dr VCH Lui	Functional Genomics to Investigate Cholangiocyte Cilia Dysfunctions in Biliary Atresia	966,286
40.	GRF	Department of Surgery	Professor K Man	Monocytic MDSC recruitment via CXCL10/TLR4 induced hepatocellular carcinoma recurrence after liver transplantation	1,093,792

41.	GRF	Department of Surgery	Dr ESW Ngan	Potential implications of Hedgehog-mediated metabolic pathways in neural fate acquisition of human neural crest	1,116,019
42.	GRF	Department of Surgery	Dr KP Wong	A prospective longitudinal study of voice and functional outcome in patients with vocal folds asymmetry (VFA) by transcutaneous laryngeal ultrasonography (TLUSG) after thyroidectomy.	754,777
43.	GRF	School of Biomedical Sciences	Professor D Chan	Deciphering protective factors for intervertebral disc degeneration for mechanistic insights and intervention potentials	1,029,233
44.	GRF	School of Biomedical Sciences	Dr RCC Chang	Investigating the functions of $\alpha 4\beta 2$ nicotinic acetylcholine receptor on systemic inflammation and neuroinflammation in an experimental model of laparotomy	880,226
45.	GRF	School of Biomedical Sciences	Professor KSE Cheah	Analyses of progenitors and differentiation trajectories in the nucleus pulposus and their relevance in intervertebral disc degeneration	1,521,506
46.	GRF	School of Biomedical Sciences	Dr A Cheung	Role and mechanism of serglycin in the tumor microenvironment of esophageal cancer	1,107,909
47.	GRF	School of Biomedical Sciences	Dr MCH Cheung	Elucidating the role of DLC1 isoform 1 in motor neuron development and disease	1,115,978
48.	GRF	School of Biomedical Sciences	Dr B Gao	Elucidating the role of CUL3-KBTBD6/7 in regulating Vangl2 ubiquitination and PCP signaling	1,116,019
49.	GRF	School of Biomedical Sciences	Professor D Jin	Activation of cGAS-mediated DNA sensing in mammalian cells by a prototypic alphavirus	1,158,019

50.	GRF	School of Biomedical Sciences	Dr CW Lee	Spatiotemporal release and proteolytic activation of proBDNF and latent TGF- $\beta$ 1 in coordinating neuromuscular junction development	1,118,747
51.	GRF	School of Biomedical Sciences	Dr Y Song	Genetic study of adolescent idiopathic scoliosis in Chinese and functional analysis of a disease variant	892,915
52.	GRF	School of Biomedical Sciences	Dr SL Wong	Developing a high-throughput platform for engineering CRISPR-based genome perturbation tools	1,433,597
53.	GRF	School of Biomedical Sciences	Dr C Yu	Matrix rigidity regulates Rho-GTPase dependent cofilin phosphorylation and podosome dynamics in vascular smooth muscle cells	1,093,745
54.	GRF	School of Biomedical Sciences	Professor P Liu	Establishment of porcine expanded potential stem cells and their use for human disease modelling	1,116,019
55.	GRF	School of Chinese Medicine	Dr H Chen	Blockade of Smad3 attenuates diabetic nephropathy via suppressing C-reactive protein-mediated NLRP3 inflammasome activation	1,008,360
56.	GRF	School of Chinese Medicine	Dr Y Feng	Inhibitory effect of the natural compound fangchinoline from <i>Stephania tetrandra</i> S. Moore on human liver cancer stem cells	1,181,602
57.	GRF	School of Chinese Medicine	Dr J Rong	Chinese medicine pentacyclic triterpene celastrol ameliorates inflammation, metabolic dysfunctions and insulin resistance in diet-induced obesity via covalently modifying endoplasmic reticulum chaperone GRP78	928,117

58.	GRF	School of Nursing	Dr MP Wang	Nurse-led alcohol brief intervention plus mobile personalized chat-based support on reducing alcohol use in university students: a pragmatic randomized controlled trial	1,180,742
59.	GRF	School of Public Health	Dr WWT Lam	The effect of metacognition-based, manualized intervention on fear of cancer recurrence: a randomized controlled trial	774,976
60.	ECS	School of Public Health	Dr Q Liao	Using cueing interventions to bridge intention-behaviour gaps: an longitudinal experimental study on promoting breastfeeding	697,652
61.	GRF	School of Public Health	Dr J Quan	Effectiveness of behavioural economics-based incentives on glycaemic control and lifestyle in adults with newly-diagnosed type 2 diabetes: a randomized control trial	1,028,925
62.	GRF	School of Public Health	Dr S Sanyal	Altered protein acylation regulates mitochondrial function and viral replication during flavivirus infections	1,116,019
63.	GRF	School of Public Health	Dr MFP Siu	Efficacy of tai chi versus cognitive behavioral therapy for insomnia (CBT-I) to treat chronic insomnia in older adults: A randomized controlled non-inferiority trial	1,105,305
64.	GRF	School of Public Health	Dr L Tian	Do inflammatory processes induced by berthierine (Fe-Al serpentine) play a role in the lung cancer epidemic of Xuan Wei, China?	1,016,539



65.	GRF	School of Public Health	Dr WLT Wong	Examining the role of external and internal attention focus walking training on conscious motor processing during rehabilitation by older adults at risk of falling in Hong Kong: A randomized controlled trial.	588,640
66.	GRF	School of Public Health	Dr CKF Cheung	Child and Parent reports of Psychological Distress as Prospective Predictors of Common Mental Disorders in Adulthood: Population-based Cohort Studies in Hong Kong and the United Kingdom	804,336
<b>Total Number of Successful Projects:</b>					<b>66</b>
<b>Total Amount of Grants Awarded:</b>					<b>HK\$66,546,102</b>