

THE UNIVERSITY OF HONG KONG  
LI KA SHING FACULTY OF MEDICINE

2021 Health and Medical Research Fund (HMRF) Funded Projects

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr. X Bao	School of Biomedical Sciences	The role of SIRT7 mediated de-acylation in controlling Th17 differentiation and autoimmune diseases	\$1,499,888
Dr. SY Fung	School of Biomedical Sciences	Suppression of host innate immune response by severe respiratory syndrome coronavirus 2 ORF3a protein via induction of IKKε dependent autophagy	\$1,386,852
Professor DY Jin	School of Biomedical Sciences	The role of TOPBP1 in oriP-dependent Epstein-Barr virus latent DNA replication	\$1,500,000
Professor JWH Wong	School of Biomedical Sciences	Nanostring nCounter expression profiling of endogenous transposable elements as a biomarker of prognosis in colorectal cancer	\$1,495,158
Professor X Lin	School of Chinese Medicine	Calycosin ameliorates experimental Sjögren's syndrome via inhibiting effector T cell response	\$1,362,000
Professor DYT Cheung	School of Nursing	Development of typology-based smoking relapse prevention intervention: A Q-methodology and a pilot randomized controlled trial	\$500,000
Professor DYT Fong	School of Nursing	Development and Evaluation of an Artificial Intelligence-assisted Scoliosis Screening and Management System (AI-SSMS) for Reducing Unnecessary Referrals and Healthcare Costs	\$1,496,495
Professor MH Ho	School of Nursing	Prevalence and Predictors of Cancer-Related Cognitive Impairment (CRCI): A Prospective Longitudinal Study of Cognitive Changes in Lung Cancer Patients	\$490,536
Professor PWC Li	School of Nursing	The feasibility and trialability of a prehabilitation program for mild to moderately frail patients undergoing cardiac surgeries/procedures	\$500,000
Professor CC Lin	School of Nursing	Optimizing the Teachable Moment for Operable Lung Cancer Patients: Comparing Prehabilitation to Health Education for Improving Postoperative Outcomes - A Pragmatic trial	\$1,410,064

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Professor TT Luk	School of Nursing	Developing a chatbot for smoking cessation counselling for youth smokers enrolled in the Youth Quitline: a pilot randomised trial	\$500,000
Professor KMP Wang	School of Nursing	Effectiveness and usability of a chatbot-delivered screening and brief intervention for alcohol reduction in working-age adults: A proof-of-concept randomised controlled trial	\$499,887
Dr. D Adam	School of Public Health	Time-varying infectivity, susceptibility and risk factors associated with SARS-CoV-2 superspreading dynamics	\$500,000
Professor ST Ali	School of Public Health	Estimation of real-time clinical severity of COVID-19 and its impact on time-varying distributions of epidemiological characteristics using syndromic and viral load data in Hong Kong	\$1,021,680
Professor RSL Au Yeung	School of Public Health	The etiologic role of trimethylamine N-oxide in cardiovascular diseases in East Asians: A Mendelian randomization study	\$1,149,100
Dr. B He	School of Public Health	Association of heavy metal exposure with metabolomics signatures of cardimetabolic risk in a Hong Kong birth cohort	\$1,490,904
Professor WTW Lam	School of Public Health	Evaluation of a program for routine implementation of symptom distress screening and referral in cancer care: A stepped wedge cluster randomized trial	\$1,066,923
Professor Q Liao	School of Public Health	Empowering older people' preventive care utilization through mental model approach and patient activation approach: a randomized control trial for promoting vaccination uptake	\$49,552
Dr. DWL Ng	School of Public Health	Conquering fear online: a pilot randomised controlled trial assessing the efficacy and feasibility of an internet-based self-help intervention on subclinical fear of cancer recurrence	\$491,964
Dr. Y Ni	School of Public Health	Short- and long-term mental health consequences of work-to-family conflict on mental health: a 15-year prospective, population-based cohort study	\$863,216
Professor J Quan	School of Public Health	Alcohol metabolism genes and risk-tailored oesophageal cancer screening: a health economic evaluation	\$995,150

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Professor L Tian	School of Public Health	Spatiotemporal Distribution of Urinary Taurine Status and Its Association with Ambient SO <sub>2</sub> : Possible Factors That May Impact Ischemic Stroke	\$1,491,664
Professor D Wang	School of public health	The impact of higher-order interactions in human mobility networks on the transmission of COVID-19 in Hong Kong and mainland China	\$551,440
Professor IOL Wong	School of Public Health	Quantifying the indirect impact of the covid-19 pandemic on incidence, mortality, stage shift and care disruptions for major cancers in Hong Kong	\$989,000
Dr. CSM Wong	School of Public Health	Contribution of family social capital on mental health: A prospective 13-year data linkage study of the population-based FAMILY Cohort and electronic health records	\$763,888
Dr. B Yang	School of Public Health	Incorporating population viral loads to real-time estimation of the transmission of SARS-CoV-2 variants among population with pre-existing immunity	\$869,760
Professor SCS Wong	Department of Anaesthesiology, School of Clinical Medicine	The analgesic effect of adding liposomal bupivacaine to standard bupivacaine for supraclavicularbrachial plexus block in distal radial fracture surgery: a randomized controlled trial	\$1,031,819
Professor WL Chan	Department of Clinical Oncology, School of Clinical Medicine	Use of mobile app "SUPPORT+" to enhance community palliative care in advanced cancer patients: a randomised controlled trial	\$1,251,956
Professor TH Rainer	Department of Emergency Medicine, School of Clinical Medicine	Early Prednisolone for Suspected Community-acquired Acute Respiratory Tract Infection (PREDICATE): A Double-blind, Randomised, Controlled Trial	\$1,499,688
Professor CLK Lam	Department of Family Medicine and Primary Care, School of Clinical Medicine	A cross-sectional survey of parent-adolescent dyads on family influence on adolescent healthy eating	\$465,500
Professor ETY Tse	Department of Family Medicine and Primary Care, School of Clinical Medicine	A cross-sectional survey exploring the willingness of Hong Kong people to use teleconsultation in primary care during the COVID-19 pandemic	\$511,216
Professor IFN Hung	Department of Medicine, School of Clinical Medicine	An open-label randomized controlled trial on inhaled remdesivir for COVID-19 (SARS-CoV-2) infection	\$1,499,200

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Professor WC Kwok	Department of Medicine, School of Clinical Medicine	A double-blind randomized controlled trial of N-acetylcysteine (NAC) for the treatment of acute exacerbation of chronic obstructive pulmonary disease	\$715,048
Professor DTW Lui	Department of Medicine, School of Clinical Medicine	Fragility fractures in type 2 diabetes as an emerging diabetic complication: epidemiology, burden and strategies of Primary prevention	\$678,248
Professor LY Mak	Department of Medicine, School of Clinical Medicine	Development of a hepatitis C infection care model for prisoners: a pilot program for micro-elimination of hepatitis C infection in Hong Kong	\$1,260,196
Professor KC Teo	Department of Medicine, School of Clinical Medicine	MOBILE health intervention in IntraCerebral Hemorrhage survivors (MOBILE-ICH)	\$696,191
Professor JKY Yuen	Department of Medicine, School of Clinical Medicine	Preparing surrogates of dementia patients for in-the-moment decision making through a structured advance care planning intervention: A mixed-methods pilot study	\$499,946
Dr. Y Mo	Department of Microbiology, School of Clinical Medicine	Investigation on inducible factors of mitochondrial dysfunction in T cells of COVID-19 patient	\$1,482,344
Professor KWK To	Department of Microbiology, School of Clinical Medicine	Surveillance of humoral and cellular immunity against COVID-19 among older adults with comorbidities in Hong Kong	\$1,494,412
Professor S Sridhar	Department of Microbiology, School of Clinical Medicine	Impact of hepatitis E virus variants on persons living with HIV in Hong Kong	\$724,000
Professor CH Chen	Department of Obstetrics and Gynaecology, School of Clinical Medicine	The role of embryonic microRNAs in extracellular vesicles for enhancing in-vitro fertilization successful rate	\$492,000
Professor KW Cheung	Department of Obstetrics and Gynaecology, School of Clinical Medicine	A multicenter randomized controlled trial comparing routine intrapartum vulval and perineal cleansing using chlorhexidine versus normal saline to decrease maternal and neonatal infection	\$1,500,000
Dr. CYL Lee	Department of Obstetrics and Gynaecology, School of Clinical Medicine	The role of human decidualized endometrial stromal cells invasion induced by trophoblastic spheroids for predicting pregnancy outcomes of in vitro fertilization	\$1,109,000
Professor RHW Li	Department of Obstetrics and Gynaecology, School of Clinical Medicine	A multimodal deep learning-based model of comprehensive sperm assessment for prediction of male fertility	\$1,494,474

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Professor L Jiang	Department of Obstetrics and Gynaecology, School of Clinical Medicine	Investigation on etiology and potential prognosis marker for recurrent pregnancy loss	\$1,165,520
Professor CKS Leung	Department of Ophthalmology, School of Clinical Medicine	Impact of home intraocular pressure telemonitoring on intraocular pressure control and glaucoma progression – A randomized control trial	\$1,497,840
Professor PK Chan	Department of Orthopaedics and Traumatology, School of Clinical Medicine	Therapeutic strategy targeting THY1+ fibroblasts mediated osteoclastogenesis and inflammation in early osteoarthritis based on progression at single cell resolution	\$1,430,410
Professor K Yeung	Department of Orthopaedics and Traumatology, School of Clinical Medicine	Photo-induced zinc-doped graphite-crystalline phase carbon nitride-based (CN-Zn/BiS) nanostructures on titanium surface enabling in situ bacterial killing and implant-to-bone integration	\$1,376,432
Dr. KY Kwong	Department of Paediatrics and Adolescent Medicine, School of Clinical Medicine	RNA sequencing as diagnostic tool for unresolved and severe forms of drug-resistant epilepsies - Developmental and Epileptic Encephalopathies (DEE)	\$495,720
Professor W Yang	Department of Paediatrics and Adolescent Medicine, School of Clinical Medicine	Understanding the genetic factors underlying clinical heterogeneity for systemic lupus erythematosus and development of a prediction model for disease progress	\$1,497,832
Professor DWH Ho	Department of Pathology, School of Clinical Medicine	Multimodal investigations of liquid biopsy in detection and clinical management of hepatocellular carcinoma	\$1,498,888
Dr. D Lee	Department of Pathology, School of Clinical Medicine	Targeting MVD of the mevalonate pathway induces ferroptosis as a therapeutic strategy against hepatocellular carcinoma	\$1,499,888
Dr. LS Wong	Department of Pathology, School of Clinical Medicine	Characterization of CASC11, a long noncoding RNA (LncRNA) as a new generation of RNA therapeutics in hepatocellular carcinoma	\$1,500,000
Professor EWY Chan	Department of Pharmacology and Pharmacy	Importance of attributes and willingness to pay for lipid-lowering agents in patients with hypercholesterolemia in Hong Kong: A discrete choice experiment	\$1,122,040
Mr. FWT Cheng	Department of Pharmacology and Pharmacy	Cost-effectiveness of automated peritoneal dialysis and continuous ambulatory peritoneal dialysis for patients with end-stage renal disease in Hong Kong	\$323,056

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Professor FTT Lai	Department of Pharmacology and Pharmacy	Acceleration of multimorbidity incidence after COVID-19 infection and modification by vaccination status: a territory-wide retrospective cohort study	\$1,238,936
Professor KW Chan	Department of Psychiatry, School of Clinical Medicine	Self-harm prediction in patients with first-episode psychosis receiving the early intervention for psychosis service: a three-year follow up study	\$1,120,832
Professor WC Chang	Department of Psychiatry, School of Clinical Medicine	Risk prediction models of mortality and major complications of Chinese patients with severe mental illness and co-existing diabetes in Hong Kong: a population-based cohort study	\$840,112
Professor PW Cheng	Department of Psychiatry, School of Clinical Medicine	Efficacy of 24-week long term transcranial pulse stimulation (TPS) on cognition and brain structure in older adults with the mild neurocognitive disorder (NCD)	\$495,580
Professor SY Lui	Department of Psychiatry, School of Clinical Medicine	The interplay between prospective memory and psychopathology and its effects on functional outcomes in patients with schizophrenia: Network analysis of two longitudinal cohorts	\$995,184
Professor SWK Cheng	Department of Surgery, School of Clinical Medicine	S100A12: emerging biomarker for Abdominal Aortic Aneurysm (AAA) and potential therapeutic target	\$1,497,464
Professor A Kwong	Department of Surgery, School of Clinical Medicine	Comparison of Abbreviated Breast MRI with Conventional Breast MRI for diagnostic performance among women with BRCA 1 and BRCA 2 mutations	\$1,498,000
Professor L Ng	Department of Surgery, School of Clinical Medicine	Patient-derived colorectal circulating tumor cells (CTCs) sphere culture for predicting drug response and identification of personalized molecular target to overcome chemoresistance of colorectal cancer patients	\$1,498,000