# THE UNIVERSITY OF HONG KONG LI KA SHING FACULTY OF MEDICINE

# Awarded Projects under NSFC/RGC Joint Research Scheme

# **2024/2025**

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)	
	Research Grants			
Professor SCW Tang	Medicine	Exploring the role of anaphylatoxins in the pathogenesis of diabetic kidney disease	1,223,482	
Professor M He	Biomedical Sciences	Conserved mechanisms that underlie motile cilia function	1,223,482	

#### *2023/2024*

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)
		Research Grants	
Dr WP Wang	Pharmacology and Pharmacy	Photoresponsive mRNA Delivery System for Esophageal Carcinoma Treatment	1,184,400

# <u>2022/2023</u>

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)		
	Research Grants				
Dr SF Yuan	Microbiology	Development of novel anti-coronavirus drugs targeting the multi-domain SARS-CoV-2 NSP3 protein	1,244,750		

# <u>2021/2022</u>

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)
		Research Grants	
Professor D Chan	Biomedical Sciences	Molecular insights of cell therapy for skeletal conditions of low bone mass	1,184,158
Dr SW Lai	Biomedical Sciences	Micro-circuitry and beneficial effects of auditory perceptual learning	1,152,935
Professor AYH Leung	Medicine	Deciphering recurrent mutation combinations in myelodysplasia syndromes using zebrafish - mechanistic and therapeutic insights	1,185,561
Professor WW Lu	Orthopaedics & Traumatology	Mechanism research of borosilicate bioactive glass modulating the microenvironment of bone regeneration and inhibiting on the bone tumors	1,185,561
Conference Grant			
Dr Y Huang	Biomedical Sciences	Workshop on single cell data science: emerging technology and statistical challenges	247,900

# <u>2020/2021</u>

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)		
	Research Grants				
Professor CM Lo	Surgery	Organizational Reform and Innovation in Management of Public Hospitals basing on integration of systems through Shenzhen-Hong Kong Collaboration	1,171,828		
Professor EHY Ng	Obstetrics & Gynaecology	Reconstruction of Endometrium-like Tissue from Human Endometrial Stem Cells	1,124,955		

# <u>2019/2020</u>

Principal Investigator	Department/ School	Project Title	Amount Awarded (HK\$) (exclusive of on-costs)	
		Research Grants		
Professor MSY Huen	Biomedical Sciences	The role of RNF169 in DNA double-strand break repair pathway choice and genome stability maintenance	1,130,560	
Professor DY Jin	Biomedical Sciences	Perturbation of mammalian and mosquito adaptive immunity by flaviviruses	1,177,667	
Professor ML Lung	Clinical Oncology	Proteomics-based identification of tumor metastasis-associated proteins and functional and mechanistic study of MEST in esophageal cancer	1,177,667	
	Conference Grant			
Professor K. Fukuda	Public Health	Stakeholders and Policy-Makers Meeting: Antimicrobial Resistance and One Health	249,500	

#### *2018/2019*

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Professor GSW Tsao	Biomedical Sciences	A mechanistic and clinicopathological study on the impact of invadosomes in promoting nasopharyngeal carcinoma (NPC) metastasis under the interplay of stromal macrophages and EBV infection	1,164,858
Professor JSM Peiris	Public Health	Investigation on the immunological cross-protection between different human coronaviruses	1,050,053

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Dr CL Cheung	Pharmacology and Pharmacy	Identification of susceptibility genes involved in the pathogenesis and prediction of thyrotoxic periodic paralysis	956,480
Professor KMC Cheung	Orthopaedics and Traumatology	Study of the degradation behaviors and osteogenic effects of Mg-Si based biomaterials	1,200,000

# **2015/2016**

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Professor EYH Chen	Psychiatry	Neurodevelopmental effect of gene-environment interaction among early-onset schizophrenia patients: a combined genetic and neuroimaging approach	1,195,955

# <u>2014/2015</u>

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Professor YS Chan	Physiology	Orexin-induced modulation of activity-dependent synaptic plasticity is critical for the maturation of vestibular circuitry and functions	1,098,872
Professor PC Sham	Genomic Sciences	Schizophrenia-related de novo and compound heterozygous mutations	1,098,618
Professor KY Yuen	Microbiology	Understanding the evolution and interspecies transmission of betacoronaviruses by structural and biophysical approaches	1,098,911
Professor Aimin Xu	Medicine	Fatty acid binding protein-4 as a mediator of autoimmune diabetes: from molecular mechanism to clinical significance	1,098,911

# <u>2013/2014</u>

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Professor KSE Cheah	Biochemistry	Identifying critical transitions and gene regulatory networks controlling phases of chondrocyte differentiation in the growth plate	1,125,000
Dr MSY Huen	Anatomy	Study Role of PCNA-binding protein TRAIP in Replicative Stress Responses and Tumor Suppression	1,123,616

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Professor XY Guan	Clinical Oncology	Analysis of the role of ATOH8 and HCC cancer stem cell and somatic cell reprogramming	1,022,212
Professor D Jin	Biochemistry	Molecular dissection of NSs virulence factor in severe fever with thrombocytopenia syndrome virus (SFTSV), a novel bunyavirus identified in China	1,027,619
Professor HF Tse	Medicine	Targeted gene correction and disease modeling using Wilson's disease induced pluripotent stem cells	1,027,619

# <u>2011/2012</u>

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Dr Z Chen	Microbiology	Blocking HIV infection by gene-encoding neutralizing antibodies	892,290
Professor DKY Shum	Biochemistry	From bone marrow cells to Schwann cells – in vitro route to specification and utility in re-myelination therapy	700,000
Dr W Tu	Paediatrics & Adolescent Medicine	Induction of tolerance by alloantigen-specific regulatory T cells in humanized mice and non-human primates	712,492
Dr KM Yao	Biochemistry	Investigating the role of FOXM1 in the maintenance of human embryonic stem cell pluripotency and genome stability	900,000

#### 2010/2011

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Professor WW Lu	Orthopaedics & Traumatology	Role of Strontium-calcium Silicate - A Novel Biomaterial in the Regeneration of Osteoporotic Bone - An In-vivo/vitro study	799,940
Dr JJ Wang	Biochemistry	Understanding genetic and epigenetic features of active promoters in human/mouse embryonic stem cells	756,000
Dr MP Wong	Pathology	p38 MAPK in human lung cancers and its potential involvement in treatment resistance to tyrosine kinase inhibitors	500,000

Principal Investigator	Department/ School	Project Title	Awarded
Investigator			Amount (HK\$)
Dr Q Lian	Medicine	Generation of corneal epithelial stem cells from human induced pluripotent stem cells (iPSC) and application for corneal epithelial tissue engineering	744,000
Dr J Yue	Physiology	Identifying novel regulators in cADPR-mediated calcium signaling by combining approaches of synthetic organic chemistry and RNAi screen	744,000

# **2008/2009**

Principal Investigator	Department/ School	Project Title	Awarded Amount (HK\$)
Dr YP Ching	Anatomy	The roles of CDK5 activator binding protein, LZAP, in the pathogenesis of neurodegenerative disease	628,400
Dr J Huang	Biochemistry	Toward the treatment of breast cancer by targeting breast tumor initiating cells with microRNAs	712,000
Dr D Jin	Biochemistry	Roles and regulation of MIP-T3 in centrosomal and ciliary function	712,000
Professor HC Lee	Physiology	Chemical synthesis and biological characterizations of antagonists of a novel calcium signaling enzyme - CD38	712,000
Professor KF So	Anatomy	Investigate retinal neuromechanisms of seasonal affective disorder	584,000
Dr A Xu	Medicine	Adipocyte fatty acid binding protein as a novel diagnostic marker and therapeutic target to combat vascular complications of diabetes: mechanisms and clinical implications	712,000

# **2007/2008**

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Dr RCC Chang	Anatomy	Elucidating the roles of ER stress responses in β-amyloid	799,000
		peptide production and tau phosphorylation as a common	
		pathological pathway	
Dr ST Cheung	Surgery	Circulating cancer biomarkers in liver cancer patients	657,000
		undergoing liver transplantation	
Professor AWC	Medicine	To identify osteoporosis susceptibility gene(s) at	799,000
Kung		chromosome 2q, 4q, 5q, 7q, 10q and 12q in Chinese	
Dr L Lu	Pathology	Regulation of dendritic cell function and its therapeutic	789,000
		application in autoimmune diabetes	

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Dr CKF Lee	Obstetrics &	Functional characterization of a testis-specific Trs4 gene on	730,700
	Gynaecology	spermatogenesis by tissue-specific conditional inactivation	
Professor IOL	Pathology	Characterization of regulatory molecules of	730,700
Ng		Wnt/betacatenin signaling in liver caner	
Professor RTP	Surgery	A study of the effect of vascular endothelial growth factor	670,700
Poon		(VEGF) on chemoresistance of hepatocellular carcinoma	
		(HCC) and blockade of VEGF to enhance chemosensitivity	
		of HCC	

# **2005/2006**

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Professor TH	Community	Genetic and environmental risk factors of atherosclerotic	800,000
Lam	Medicine	cerebrovascular and cardiovascular disease in Hong Kong	
		and Guangzhou Chinese	
Professor HF	Medicine	Hypoxia-mediated differentiation of murine and human	796,000
Tse		embryonic stem cells into cardiomyocytes: mechanistic	
		roles of calcium and ion channels	
Dr A Xu	Medicine	The use of adiponectin as biomarker to identify novel	784,000
		anti-diabetic and anti-atherogenic agents from Chinese	
		herbs	

Principal	Department/	Project Title	Awarded
Investigator	School		Amount (HK\$)
Professor CL	Surgery	Development and clinical evaluation of peptide vaccines for	631,403
Lin		immunotherapy of Epstein-Barr virus-positive	
		nasopharyngeal carcinoma	
Dr L Lu	Pathology	Functional interactions of dendritic cells and B cells in	385,990
		autoimmunity	
Professor GSW	Anatomy	Functional study of EBV infection and genetic alterations	470,574
Tsao	·	in immortalized epithelial cells	