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

## RGC GRF/ECS 2014-15

## List of Awarded Projects

	Funding Scheme	Principal Investigator	Department/School	Project Title	Project Fund Awarded	ECS Grant Awarded	Grant Total Awarded
1.	GRF	Dr. Z. Xia	Anaesthesiology	The role of FoxO1 in diabetic heart susceptibility to ischemia/reperfusion injury and sensitivity to ischemic postconditioning and its interplay with adiponectin	599,535		599,535
2.	ECS	Dr. T.K. Chan	Anatomy	Governing information disclosure for consent to invasive medical procedures: an empirical and normative study	573,612	50,000	623,612
3.	GRF	Dr. A. Cheung	Anatomy	Role of miR-338-5p as a novel modulator of chemoresistance in esophageal cancer	960,759		960,759
4.	ECS	Dr. M.C.H. Cheung	Anatomy	In vivo functional characterization of a Rho GTPase-activating protein, DLC1, in neural crest development	711,564	50,000	761,564
5.	GRF	Dr. Y.P. Ching	Anatomy	Functional characterization of the roles of NIMA-related kinase, Nek2 in liver cancer development and metastasis	1,060,000		1,060,000
6.	GRF	Dr. M.S.Y. Huen	Anatomy	Examining Negative Regulatory Mechanisms of DNA Damage Signal Transduction & Their Impact on Maintenance of Genome Stability	1,131,600		1,131,600
7.	GRF	Dr. B. Lin	Anatomy	Ectopic expression of the light-sensitive protein melanopsin in rod photoreceptors prevents retinal degeneration	677,640		677,640

8.	ECS	Dr. S.K.Y. Ma	Anatomy	Regulatory role of microRNA-1246 and Wnt/?catenin pathway interaction in CD133+ liver cancer stem cells-driven hepatocellular carcinoma	744,800	50,000	794,800
9.	GRF	Professor G.S.W. Tsao	Anatomy	Regulation of invadopodia formation by the EBV-encoded LMP1 in nasopharyngeal epithelial cells	1,209,600		1,209,600
10.	GRF	Professor W. Wu	Anatomy	Bridge the gap in nerve tissue injury to promote axonal regeneration with fabrication of a bioactive nanofibrous conduit	637,005		637,005
11.	GRF	Professor D. Chan	Biochemistry	Mechanisms of energy management in hypertrophic chondrocyte adaptation to ER Stress	958,840		958,840
12.	GRF	Dr. K.M.J. Chan	Biochemistry	Functional analysis of the role of Mcm3 in epigenetic gene silencing	946,800		946,800
13.	GRF	Professor K.S.E. Cheah	Biochemistry	Mechanisms controlling determination of sensory versus non-sensory fate in inner ear development	1,326,546		1,326,546
14.	GRF	Professor D.Y. Jin	Biochemistry	Identification and characterization of human cyclic dinucleotide phosphodiesterases that hydrolyze cGAMP second messenger	938,025		938,025
15.	GRF	Dr. C. Qian	Biochemistry	Structural and Mechanistic Studies of Human SLX4 Complex in Interstrand Crosslink Repair	933,289		933,289
16.	GRF	Professor M.H. Sham	Biochemistry	The roles of Suppressor of fused (Sufu) in the maintenance of mammalian neural progenitor cells	1,066,520		1,066,520
17.	GRF	Dr. J.A. Tanner	Biochemistry	DNA origami interfaced with aptamer-mediated molecular recognition for integrated modular diagnostics	1,026,750		1,026,750
18.	GRF	Dr. J.J. Wang	Biochemistry	A novel computational framework to identify transcription factor-DNA interaction for cancer genomics	1,282,684		1,282,684
19.	GRF	Dr. Y.M.E. Wong	Biochemistry	Genetic analyses of Cdo and Boc function in inner ear development	914,000		914,000

20.	GRF	Dr. K.M. Yao	Biochemistry	Elucidating the nuclear function of EPS8/EPS8L2: Crosstalk with FOXM1 and regulation of cancer cell proliferation and migration/invasion	904,952	904,952
21.	GRF	Professor J. Shen	Chinese Medicine	Exploring Caveolin-1 as a Novel Molecular Target for Hampering T lymphocytes Infiltration through Blood Brain Barrier and Attenuating Disease Progress in Experimental Autoimmune Encephalomyelitis	658,179	658,179
22.	GRF	Dr. H.L. Lung	Clinical Oncology	The functional role(s) of SAA1 polymorphisms in integrin-focal adhesion kinase-mediated cell adhesion and tumor metastasis	788,541	788,541
23.	GRF	Professor M.L. Lung	Clinical Oncology	Secretory NID2, a basement membrane protein facilitating cell adhesion, migration, and metastasis in human cancers	1,122,210	1,122,210
24.	GRF	Dr. S.K. Hui	Diagnostic Radiology	Stroke assessment using diffusional kurtosis imaging	471,706	471,706
25.	GRF	Professor K.R. Boheler	Li Ka Shing Faculty of Medicine	Mechanistic Study of Vascular Ehlers-Danlos Syndrome using Induced Pluripotent Stem Cells derived from Humans with COL3A1 Mutations	1,022,494	1,022,494
26.	GRF	Professor D.T.M. Chan	Medicine	The role of Ku70 and Ku80 in the pathogenesis of lupus nephritis	787,581	787,581
27.	GRF	Dr. K.Y. Cheng	Medicine	The MDM2-p53 pathway as a novel regulator of glucose-stimulated insulin secretion in pancreatic beta cells	716,548	716,548
28.	GRF	Dr. C.L. Cheung	Medicine	Genetics and genomics of anti-thyroid drug induced agranulocytosis	905,558	905,558
29.	GRF	Dr. I.F.N. Hung	Medicine	A double blind randomized controlled trial of intradermal hepatitis B vaccination with topical imiquimod in dialyzed patients with chronic renal failure	551,319	551,319

30.	GRF	Dr. G.H. Singh	Medicine	Mechanisms of leukaemic transformation from myelodysplastic syndromes (MDS) failing treatment with demethylating agents.	835,546	835,546
31.	GRF	Professor H.F. Tse	Medicine	Lower Thoracic Spinal Cord Stimulation for Treatment of Heart Failure with Preserved Ejection Fraction: Insight from a Porcine Model of Hypertensive Cardiomyopathy	865,890	865,890
32.	GRF	Professor A. Xu	Medicine	Interplay between Adiponectin and Alternatively-activated Macrophages in Cold-induced Remodeling and Adaptive Thermogenesis of White Adipose Tissues	957,794	957,794
33.	GRF	Dr. T.C.C. Yau	Medicine	Randomized Phase II Trial of Sorafenib, Capecitabine and Oxaliplatin (SECOX) versus Single Agent Sorafenib in Patients with Advanced Hepatocellular Carcinoma	626,806	626,806
34.	GRF	Dr. S.S.Y. Yung	Medicine	Fibronectin fragments and isoforms in the pathogenesis of tubulo-interstitial damage in lupus nephritis	874,592	874,592
35.	GRF	Dr. H. Chen	Microbiology	Adaptive strategies of the H7N9 virus PB2 polymerase for replication in humans	700,617	700,617
36.	GRF	Professor Z. Chen	Microbiology	Role of a newly identified PD-1 isoform in modulating immune responses	1,144,050	1,144,050
37.	GRF	Dr. L. Liu	Microbiology	Defining the role of monocyte-derived dendritic cells in potentiating durable and protective T-cell immunity by a newly identified PD-1 isoform	1,054,962	1,054,962
38.	GRF	Dr. W. Deng	Nursing	A novel function of IL-6/IL-6R?signaling activation in nasopharyngeal epithelial cells: facilitation of cellular immortalization	998,490	998,490
39.	GRF	Dr. K.K.L. Chan	Obstetrics and Gynaecology	Role of pyruvate dehydrogenase kinase 1 (PDK1) in tumorigenesis and metastasis of ovarian cancer	567,202	567,202

40.	GRF	Dr. C.N. Chiu	Obstetrics and Gynaecology	The role of galectin-3 in spermatozoa-zona pellucida binding and its association with fertilization in vitro	1,133,440	1,133,440
41.	GRF	Dr. C.K.F. Lee	Obstetrics and Gynaecology	Human embryonic stem cell-derived trophoblastic cells for the development of a novel implantation model	1,198,800	1,198,800
42.	GRF	Dr. R.H.W. Li	Obstetrics and Gynaecology	Role of adrenomedullin and inflammatory mediators in pathogenesis of tubal ectopic pregnancy	645,264	645,264
43.	GRF	Professor H.Y.S. Ngan	Obstetrics and Gynaecology	Functional characterization of CD71(+) population and the roles of HPV-E6 protein in cervical cancer	671,552	671,552
44.	GRF	Dr. Y.H.I. Wong	Ophthalmology	An Optical Coherence Tomography study to investigate a novel parameter for visual correlation and progress prediction in patients with diabetic macula oedema	512,143	512,143
45.	GRF	Professor P.K.Y. Chiu	Orthopaedics and Traumatology	Is Endothelin-1 Signaling A Therapeutic Target to Rescue Osteoarthritis? An Experimental Study	647,475	647,475
46.	GRF	Professor W.W. Lu	Orthopaedics and Traumatology	The Use of Novel UCST Polymers to Develop an Anti-leakage Bone Cement Injection System for the Treatment and Prevention of Elderly Osteoporotic Fractures	692,521	692,521
47.	GRF	Dr. D. Samartzis	Orthopaedics and Traumatology	Modic Changes of the Lumbar Spine	970,875	970,875
48.	GRF	Dr. S.Y. Chan	Paediatrics and Adolescent Medicine	Role of TSPYL2 in epigenetic control of gene expression	618,829	618,829
49.	GRF	Dr. S.S.S. Chiu	Paediatrics and Adolescent Medicine	A prospective longitudinal study to correlate maternal antibodies against influenza A and B with influenza infection and hospitalization in the first 6 months of life	1,150,225	1,150,225
50.	GRF	Dr. P.P.W. Lee	Paediatrics and Adolescent Medicine	The role of NLRP3 inflammasome in the induction of protective Th1 and Th17 immune response towards Penicillium marneffei	973,024	973,024

51.	GRF	Dr. W. Tu	Paediatrics and Adolescent Medicine	Human gammadelta-T cell-mediated virus-specific immune regulation during influenza virus infection	701,839	701,839
52.	GRF	Dr. W. Yang	Paediatrics and Adolescent Medicine	Meta-Analysis of three GWAS datasets from Hong Kong, Anhui China and UK followed by replication in independent cohorts in Asia and UK for identification of novel susceptibility genes associated with SLE	1,098,000	1,098,000
53.	GRF	Dr. K.W. Lee	Pathology	The clinical relevance and role of cancer-associated fibroblast-derived HGF in the regulation of liver tumor-initiating cells	1,392,000	1,392,000
54.	GRF	Professor L. Lu	Pathology	The role of B1 cells in the development of autoimmune arthritis	736,354	736,354
55.	GRF	Professor I.O.L. Ng	Pathology	Delineation of the role of RPS6KA3, which encodes p90 ribosomal S6 kinase 2 (RPS6KA3), and their natural mutants in liver cancer	618,408	618,408
56.	GRF	Dr. C.C.L. Wong	Pathology	Clinical relevance and roles of hypoxia-induced NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 4-like 2 (NDUFA4L2) in hepatocellar carcinoma progression	701,470	701,470
57.	GRF	Dr. M.P. Wong	Pathology	The role and mechanisms of tumor initiating cells regulation by nuclear factor of activated T-cells (NFAT) pathway in non-small cell lung cancer	881,856	881,856
58.	GRF	Dr. J.W.P. Yam	Pathology	Functional role and clinical significance of galectin-1 in liver cancer	725,406	725,406
59.	GRF	Dr. E.W. Chan	Pharmacology and Pharmacy	Pharmacoepidemiology of oral anticoagulation agents a comparison of dabigatran etexilate, warfarin and dual-antiplatelet therapy in patients with atrial fibrillation.	213,938	213,938
60.	GRF	Dr. J.K.W. Lam	Pharmacology and Pharmacy	Development of a highly effective, pH responsive peptide, siRNA delivery system to the respiratory tract to combat influenza virus infections	1,240,976	1,240,976

61.	GRF	Dr. S.W.S. Leung	Pharmacology and Pharmacy	Vasoconstrictor signals in hypoxia: role of soluble guanylyl cyclase	1,171,188		1,171,188
62.	GRF	Dr. W.Y.V. Lui	Pharmacology and Pharmacy	MAPK1 Genomic Alterations as Predictor of Treatment Response and Driver for Tumor Growth in Head and Neck Cancer	661,203		661,203
63.	ECS	Dr. E.H.C. Tang	Pharmacology and Pharmacy	Enhancement of the fat-burning capacity of white and brown adipose tissue by activation of prostaglandin E receptor subtype 4	1,004,128	50,000	1,054,128
64.	GRF	Dr. Y. Wang	Pharmacology and Pharmacy	Molecular dissection of the pathogenic adipose-vascular signaling axis associated with obesity - focusing on polyamination and deamidation of lipocalin-2	1,731,763		1,731,763
65.	GRF	Dr. K.H. Cheung	Physiology	Electrophysiological Characterization of the Two-Pore Channel 2	924,761		924,761
66.	GRF	Professor R.A. Li	Physiology	Ontogenic combinatorial conditioning of 3D human pluripotent stem cell ventricular models for facilitated maturation	764,100		764,100
67.	GRF	Dr. J. Yue	Physiology	Applying a Novel cADPR Photoaffinity Labelling Analogue to Dissect the Cyclic ADP-Ribose (cADPR)-Ca2+ Signaling in Mammalian Cells	667,381		667,381
68.	GRF	Dr. K.O. Lai	Physiology	Investigating the functional role of a novel synaptic protein TBC1D24 in activity-dependent spine morphogenesis.	1,115,044		1,115,044
69.	GRF	Dr. W.W.T. Lam	Public Health	The role of cognitive bias in relation to persistent distress among women diagnosed with breast cancer	382,360		382,360
70.	ECS	Dr. E.H.Y. Lau	Public Health	Transmission dynamics of hand, foot and mouth disease in children and its implications for school-based control strategies	461,373	50,000	511,373
71.	GRF	Dr. M.Y. Lee	Public Health	Determining the ligand and function of TLR10: a novel innate immune sensor in viral infection	632,266		632,266
72.	GRF	Dr. S. Sanyal	Public Health	Host factors involved in dengue infection	644,557		644,557

				Total Amount of Grants Awarded:	(	67,290,692	
				<b>Total Number of Successful Projects:</b>		79	
79.	GRF	Professor P.K.H. Tam	Surgery	Using genome-editing system to establish human stem cell-based disease model for studying Hirschsprungs (HSCR) associated genetic lesions	1,150,642		1,150,642
78.	GRF	Dr. E.S.W. Ngan	Surgery	Genetic analysis of interaction between Sufu, Gli and Sox10 in Hedgehog mediated gliogenesis of enteric neural crest cells	748,278		748,278
77.	GRF	Professor K. Man	Surgery	Role of Inflammatory chemokine-CXCL10 in early phase graft injury induced chemoresistance after liver transplantation	737,603		737,603
76.	GRF	Dr. M.M. Garcia-Barcelo	Surgery	Causative genes for perinatal biliary atresia: a follow-up of whole-exome sequencing	632,569		632,569
75.	GRF	Professor K.M. Chu	Surgery	Role of EP2 receptor in sensitization of platinum-based anticancer drug in gastric cancer	591,767		591,767
74.	GRF	Dr. A.C.Y. Chan	Surgery	Sequential transarterial chemoembolization and portal vein embolization versus portal vein embolization alone before major hepatectomy for patients with hepatocellular carcinoma: a prospective randomized control trial	415,003		415,003
73.	GRF	Dr. H. Zhu	Public Health	Molecular basis for the infectivity and transmissibility of the human isolated A(H7N9) influenza virus in a ferret model	825,705		825,705