

THE UNIVERSITY OF HONG KONG  
LI KA SHING FACULTY OF MEDICINE

ITF - Innovation and Technology Support Programme (ITSP)

2020

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr CX Fang	Orthopaedics and Traumatology	Pre-Clinical Validation of a Novel Tensegrity-Based Orthopaedic Implant Technology Platform for Elderly Osteoporotic Bone	1,258,427
Dr JWP Yam	Pathology	The Production, Optimization and Preclinical Efficacy of Monoclonal Antibody for Targeting Oncogenic NID-Enriched Extracellular Vesicles in Liver Cancer	1,370,409
Dr SKY Ma	Biomedical Sciences	Development and Pre-clinical Evaluation of a Humanized ANXA3 Neutralizing Monoclonal Antibody for Hepatocellular Carcinoma Treatment	1,221,875
Professor LML Poon	Biomedical Sciences	Development of Vaccine against SARS-CoV-2 with Attenuated Influenza Virus by Codon Usage Bias	1,395,226
Dr WHK Chiu	Diagnostic Radiology	Novel Lossless Medical Image Compression using Artificial Intelligence	1,378,249

2019

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr HCC Chang	Diagnostic Radiology	Develop a Novel Self-Navigated 3D Diffusion-Weighted Magnetic Resonance Imaging Technology	1,134,884
Dr JPY Cheung	Orthopaedics and Traumatology	A Novel Mobile Application Enabling Automated Body Contour Comparison and Spine Alignment Examination Using Artificial Intelligence	1,374,774

Professor FKL Leung	Orthopaedics and Traumatology	The Anti-Migration Osteoporotic Thread: A Technology Platform for the Next Generation of Bone Implants for Elderly Patients with Fractures of the Hip, Shoulder, and Spine	2,639,641
Professor KWK Yeung	Orthopaedics and Traumatology	Development of Sponge-Like Monodisperse PLGA/Alginate Core-Shell Microsphere Delivery Device to Enable Precisely Controlled Release of Magnesium Ions for In-Situ Bone Regeneration	1,069,762
Professor YL Lau	Paediatrics and Adolescent Medicine	Development of a molecular diagnosis tool for Primary Immunodeficiency patients	1,388,487
Professor LML Poon	Public Health	Development of genetically stable codon bias influenza virus of live attenuated vaccine potential	1,398,712

**2018**

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr SL Wong	Biomedical Sciences	Advanced Platform for High-throughput Discovery of Three-way Combination Therapies	1,399,906
Dr WKW Seto	Medicine	An Artificial Intelligence System For The Detection And Characterization Of Early Liver Cancer	4,232,540
Professor KWK Yeung	Orthopaedics and Traumatology	Development of Magnesium Based Osteogenic Bionanocomposites for Bone Specific Bio-scaffold 3D Printing	1,199,985

**2017**

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Professor Y Feng	Chinese Medicine	Secondary Development of Classical Chinese Medicine Formula Huanglian Jiedu Decoction (HLJDD): HLJDD Reducing Chemotherapy-induced Diarrhoea and Improving Chemotherapy Response	1,194,684
Dr CWS Sze	Chinese Medicine	Research and Development of the Chinese Medicine Formula ZB and Its Bioactive Compounds as Adjuvant Therapy for Colon Cancer and for Alleviation of Chemotherapy-Induced Osteoporosis	1,115,221

		using Network and Systems Pharmacological Approaches	
Professor Z Chen	Microbiology	A Novel Therapeutic AAV-vectored Bi-Specific Neutralizing Antibody against HIV/AIDS	1,399,550
Dr Y Hu	Orthopaedics and Traumatology	A Novel Measurement System of Hand Function	1,397,574
Dr TM Wong	Orthopaedics and Traumatology	A Novel Osteoporotic Bone Fracture Simulation System Enabling Safer and More Effective Fracture Fixation Surgery and Implant Design for Elderly Patients	1,398,114
Professor US Khoo	Pathology	Testing Ivabradine on Patient Derived Xenografts: A Novel Potential Targeted Treatment for Breast Cancer	1,329,925

### 2016

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr RCC Chang	Biomedical Sciences	Establishment of pre-clinical platform and a novel 3D tissue visualisation protocol for therapeutic drug development of Lewy Body Dementias	1,169,961
Professor FKL Leung	Orthopaedics and Traumatology	Development of Anti-Cutout Implants for Internal Fixation of Osteoporotic Femoral and Humeral Neck Fractures	1,966,569

### 2015

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Professor KR Boheler	LKS Medical Faculty	Establishing an internationally competitive Stem Cell Biotech Cluster in HK: Bioartificial Human Hearts	10,000,000
Dr Y Hu	Orthopaedics and Traumatology	Development of a wearable transcranial dc-stimulator for chronic pain management	1,248,904
Professor KWK Yeung	Orthopaedics and Traumatology	Development of a Degradable Hybrid Bioactive Coating for Osteoporotic Fracture Fixation Implants (Clustered Project #4)	1,369,932



**2014**

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Professor HF Tse	Medicine	Development of Wireless Powered Miniature Pacing Devices for Cardiac Rhythm Management	1,399,993
Professor Z Chen	Microbiology	A New Therapeutic Vaccine for HIV/AIDS	1,391,408

**2013**

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Professor HF Tse	Medicine	Viral-Vector Integration-Free Human Induced Pluripotent Stem Cells Platform Derived from Urine Samples for Disease Diagnosis and Drug Screening	993,031
Professor US Khoo	Pathology	Development of Antibody Specific to Splice Variant of NCOR2 for the Management of Breast Cancer	899,845

**2012**

<b>Principal Applicant</b>	<b>Department/School/Centre</b>	<b>Project Title</b>	<b>Awarded Amount (HK\$)</b>
Dr Q Lian	Medicine	Platform of Human Pluripotent Stem Cell-derived Mesenchymal Stem Cells for Tissue Regeneration and Industrial Application	948,232
Dr Y Hu	Orthopaedics and Traumatology	A novel technology for objective low back pain rehabilitation assessment based on automatic dynamic topography analysis of lumbar muscular contraction	957,255
Dr KW Lee	Pathology	Therapeutic targeting of liver cancer by use of monoclonal antibodies against CD47	993,678
Professor SYK Law	Surgery	Development of a blood-based assay to quantitate the serum level of microRNA-16 and microRNA-193b for discriminating esophageal squamous cell carcinoma patients with response to chemoradiation	926,900
Dr NPY Lee	Surgery	An Investigation into the Pre-clinical Efficacy of Monoclonal Antibody against Cadherin-17 and its Combined Treatment with Chemotherapeutic Drugs using Live Imaging in an Orthotopic Tumor Xenograft Model	965,400
Dr Y Zhang	Chinese Medicine	Investigation of Therapeutic Efficacy and Mechanisms of Polysaccharide of <i>Dendrobium officinale</i> in Alleviating Cigarette-Induced Pulmonary Inflammation	826,701