## List of Successful Projects for RGC CERG 2006-07

<table>
<thead>
<tr>
<th>Project Code</th>
<th>Department</th>
<th>PI</th>
<th>Project Title</th>
<th>Award (HK$)</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKU 7603/06M</td>
<td>Li Ka Shing Faculty of Medicine</td>
<td>Dr GR Li</td>
<td>Studies on ion channels and cell proliferation in human cardiac fibroblasts</td>
<td>1,159,000</td>
<td>30</td>
</tr>
<tr>
<td>HKU 7526/06M</td>
<td>Li Ka Shing Faculty of Medicine</td>
<td>Dr C Liu</td>
<td>Identification and characterization of chromosomal functional domains in completely sequenced genomes</td>
<td>798,276</td>
<td>36</td>
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<tr>
<td>HKU 7552/06M</td>
<td>Anatomy</td>
<td>Dr RCC Chang</td>
<td>Elucidating the biological mechanisms of autophagy in Alzheimer's disease</td>
<td>1,229,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7556/06M</td>
<td>Anatomy</td>
<td>Dr A Cheung</td>
<td>Centromeric instability in human cells undergoing immortalization: implication for progression of chromosomal instability in carcinogenesis</td>
<td>1,252,500</td>
<td>36</td>
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<tr>
<td>HKU 7504/06M</td>
<td>Anatomy</td>
<td>Dr SK Chung</td>
<td>Conditional knockout of osmotic responsive element binding protein, OREBP/NFATS/TonEBP, to study its role in brain edema and infarct after ischemic stroke: a leading cause of mortality and morbidity</td>
<td>1,374,300</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7631/06M</td>
<td>Anatomy</td>
<td>Professor GSW Tsao</td>
<td>Mechanisms involved in ld1 induced centrosome abnormalities</td>
<td>1,047,877</td>
<td>36</td>
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<tr>
<td>HKU 7643/06M</td>
<td>Anatomy</td>
<td>Dr W Wu</td>
<td>Axonal regeneration of CNS neurons after spinal cord injury</td>
<td>932,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7485/06M</td>
<td>Biochemistry</td>
<td>Dr J Huang</td>
<td>Towards a visualized proteome of <em>Escherichia coli</em></td>
<td>1,429,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7486/06M</td>
<td>Biochemistry</td>
<td>Dr D Jin</td>
<td>Characterization of fusion oncoprotein FUS-CREBSL2 found in soft tissue sarcoma</td>
<td>932,500</td>
<td>36</td>
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<tr>
<td>HKU 7685/06M</td>
<td>Biochemistry</td>
<td>Dr MH Sham</td>
<td>Genetic and developmental defects of a mouse mutant Mcc with microphthalmia, cataract and closed eyelid</td>
<td>1,229,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7670/06M</td>
<td>Biochemistry</td>
<td>Dr DKY Shum</td>
<td>Role of chondroitin sulfates in axonal growth and patterning in the developing hindbrain</td>
<td>1,229,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7488/06M</td>
<td>Biochemistry</td>
<td>Dr JA Tanner</td>
<td>Targeting sclerostin with aptamer-based inhibitors as an approach to osteoporosis therapy</td>
<td>654,500</td>
<td>24</td>
</tr>
</tbody>
</table>
## List of Successful Projects for RGC CERG 2006-07

<table>
<thead>
<tr>
<th>Code</th>
<th>Department</th>
<th>Investigator</th>
<th>Project Title</th>
<th>Amount</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKU 7686/06M</td>
<td>Biochemistry</td>
<td>Dr NS Wong</td>
<td>Redox-mediated posttranscriptional regulation of CHOP expression: its implication in CHOP-mediated pathologies</td>
<td>1,145,200</td>
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<tr>
<td>HKU 7655/06M</td>
<td>Biochemistry</td>
<td>Dr Z Zhou</td>
<td>Triggering senescence in tumor cells via unprocessed lamin A</td>
<td>932,500</td>
<td>36</td>
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<tr>
<td>HKU 7672/06M</td>
<td>Community Medicine</td>
<td>Dr GN Thomas</td>
<td>SNP-based genome-wide screen for susceptibility genes for hypertension: a sibility study</td>
<td>1,566,916</td>
<td>24</td>
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<tr>
<td>HKU 7587/06M</td>
<td>Diagnostic Radiology</td>
<td>Dr PL Khong</td>
<td>Diffusion tensor MRI imaging (DTI) of radiation-induced white matter injury in a rat model</td>
<td>586,500</td>
<td>24</td>
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<tr>
<td>HKU 7550/06M</td>
<td>Medicine</td>
<td>Professor DTM Chan</td>
<td>Effect of rapamycin, alone or in combination with mycophenolate mofetil, in the treatment of murine lupus nephritis</td>
<td>754,500</td>
<td>24</td>
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<tr>
<td>HKU 7514/06M</td>
<td>Medicine</td>
<td>Dr Q Huang</td>
<td>Systematic evaluation and screen of the regions previously linked to osteoporosis in Southern Chinese</td>
<td>1,132,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7582/06M</td>
<td>Medicine</td>
<td>Professor MSM Ip</td>
<td>Endothelial damage and atherosclerosis in obstructive sleep apnea: the role of advanced glycation end products</td>
<td>1,276,550</td>
<td>30</td>
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<tr>
<td>HKU 7661/06M</td>
<td>Medicine</td>
<td>Professor KN Lai</td>
<td>The tubular peroxisome proliferator - activated receptors (PPAR) -γ system in IgA nephropathy: a potential therapeutic target</td>
<td>1,143,500</td>
<td>30</td>
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<tr>
<td>HKU 7590/06M</td>
<td>Medicine</td>
<td>Professor KSL Lam</td>
<td>Adipocyte fatty acid binding proteins: new mediators of the metabolic syndrome and coronary atherosclerosis</td>
<td>1,779,700</td>
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<tr>
<td>HKU 7592/06M</td>
<td>Medicine</td>
<td>Professor HY Lan</td>
<td>Regulation of immune response in glomerulonephritis by TGF-β/smrad signaling</td>
<td>1,429,500</td>
<td>36</td>
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<tr>
<td>HKU 7679/06M</td>
<td>Medicine</td>
<td>Dr G Lau</td>
<td>Role of upregulation of toll-like receptor 7 and functional polymorphisms within the toll-like receptor 7 gene in inducing sustained disease remission in chronic hepatitis B infection</td>
<td>754,500</td>
<td>24</td>
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<tr>
<td>HKU 7520/06M</td>
<td>Medicine</td>
<td>Dr AYH Leung</td>
<td>The roles of survivin in hematopoiesis, angiogenesis and tumorigenesis in a zebrafish knock-down and transgenic model</td>
<td>1,032,500</td>
<td>36</td>
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<tr>
<td>HKU 7633/06M</td>
<td>Medicine</td>
<td>Dr HF Tse</td>
<td>Genetic enrichment of cardiac derivatives from human embryonic stem cells and their bioengineering for cell-based heart therapies</td>
<td>1,154,500</td>
<td>24</td>
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<tr>
<td>HKU 7673/06M</td>
<td>Medicine</td>
<td>Dr AYM Wang</td>
<td>Endothelial progenitor cells in renal failure patients and its modulation by treatment with the peroxisome proliferator-activated receptor-gamma agonist in relation to clinical atherosclerosis</td>
<td>1,539,352</td>
<td>36</td>
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<tr>
<td>HKU 7645/06M</td>
<td>Medicine</td>
<td>Dr A Xu</td>
<td>Hypoxia inducible factor 1α as a mediator of obesity-induced chronic inflammation, aberrant production of adipokines, and insulin resistance</td>
<td>843,500</td>
<td>30</td>
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<tr>
<td>HKU 7653/06M</td>
<td>Medicine</td>
<td>Dr SSY Yung</td>
<td>The role of heparan sulfate proteoglycans in the pathogenesis of diabetic nephropathy and the effects of Sulodexide</td>
<td>654,500</td>
<td>24</td>
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<tr>
<td>HKU 7500/06M</td>
<td>Microbiology</td>
<td>Dr H Chen</td>
<td>H5N1 virus heterogeneity and mechanisms for adaptation to new hosts</td>
<td>1,210,692</td>
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<tr>
<td>HKU 7512/06M</td>
<td>Microbiology</td>
<td>Dr Y Guan</td>
<td>The role of migratory birds in the transmission of H5N1 influenza virus in eastern Asia</td>
<td>1,630,500</td>
<td>36</td>
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<tr>
<td>HKU 7513/06M</td>
<td>Microbiology</td>
<td>Dr PL Ho</td>
<td>The epidemiological relationships between CTX-M producing Escherichia coli from animal and human sources</td>
<td>484,180</td>
<td>24</td>
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<tr>
<td>HKU 7620/06M</td>
<td>Microbiology</td>
<td>Professor JSM Peiris</td>
<td>Role of toll-like receptors and retinoic acid-inducible gene 1 in the induction of cytokines in SARS-coronavirus infected human primary macrophages</td>
<td>1,054,500</td>
<td>24</td>
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<tr>
<td>HKU 7530/06M</td>
<td>Microbiology</td>
<td>Dr LLM Poon</td>
<td>Studies of mammalian, avian and chimeric influenza polymerase complexes</td>
<td>848,500</td>
<td>36</td>
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<tr>
<td>HKU 7546/06M</td>
<td>Microbiology</td>
<td>Dr B Zheng</td>
<td>A feasibility study on the inhibition of avian influenza virus H5N1 replication using siRNA</td>
<td>932,500</td>
<td>36</td>
</tr>
</tbody>
</table>
## List of Successful Projects for RGC CERG 2006-07

<table>
<thead>
<tr>
<th>Reference</th>
<th>Department/Field</th>
<th>Investigator(s)</th>
<th>Description</th>
<th>Grant Amount</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKU 7578/06M</td>
<td>Obstetrics and Gynaecology</td>
<td>Professor PC Ho</td>
<td>Adrenomedullin and sperm functions</td>
<td>654,500</td>
<td>24</td>
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<tr>
<td>HKU 7647/06M</td>
<td>Obstetrics and Gynaecology</td>
<td>Dr WSB Yeung</td>
<td>The mechanism of action of a novel glycoligin isoform from cumulus matrix on stimulating spermatozoa-zona pellucida binding</td>
<td>1,279,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7658/06M</td>
<td>Orthopaedics and Traumatology</td>
<td>Dr KMC Cheung</td>
<td>Uncovering new compounds and mechanisms for treatment of intervertebral disc degeneration by chemical genetics</td>
<td>376,500</td>
<td>12</td>
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<tr>
<td>HKU 7130/06E</td>
<td>Orthopaedics and Traumatology</td>
<td>Dr Y Hu</td>
<td>Novel method for fast extraction and auto-recognition of somatosensory evoked potentials</td>
<td>431,000</td>
<td>24</td>
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<tr>
<td>HKU 7153/06E</td>
<td>Orthopaedics and Traumatology</td>
<td>Dr WW Lu</td>
<td>The micro-structure and micro-mechanics of human intervertebral disc</td>
<td>490,000</td>
<td>24</td>
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<tr>
<td>HKU 7594/06M</td>
<td>Paediatrics and Adolescent Medicine</td>
<td>Dr ASY Lau</td>
<td>HIV dysregulation of the toll-like receptor system - implications for pathogenesis</td>
<td>654,500</td>
<td>24</td>
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<tr>
<td>HKU 7498/06M</td>
<td>Pathology</td>
<td>Dr TL Chan</td>
<td>Expression of microRNAs in various stages and pathways of colorectal</td>
<td>1,132,500</td>
<td>36</td>
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<tr>
<td>HKU 7503/06M</td>
<td>Pathology</td>
<td>Dr ANY Cheung</td>
<td>Akt and p21-activated kinase signaling pathways in gestational trophoblastic disease</td>
<td>844,500</td>
<td>24</td>
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<tr>
<td>HKU 7580/06M</td>
<td>Pathology</td>
<td>Dr F Huang</td>
<td>Mechanistic assessment of autoimmune responses induced by dendritic cells in interleukin-10 deficient mice - implications in lupus pathogenesis</td>
<td>902,500</td>
<td>24</td>
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<tr>
<td>HKU 7524/06M</td>
<td>Pathology</td>
<td>Dr SY Leung</td>
<td>Systematic characterisation of genes participating in Wnt signaling pathway that regulate colon stem cell renewal and their functional significance in colon cancer pathogenesis</td>
<td>1,630,500</td>
<td>36</td>
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<tr>
<td>HKU 7608/06M</td>
<td>Pathology</td>
<td>Dr L Lu</td>
<td>Plasma cell development and its regulation in autoimmunity</td>
<td>654,500</td>
<td>24</td>
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<tr>
<td>HKU 7615/06M</td>
<td>Pathology</td>
<td>Professor IOL Ng</td>
<td>Significance of LRP6 coreceptor upregulation in the aberrant activation of Wnt signaling in liver cancer</td>
<td>1,830,500</td>
<td>36</td>
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<tr>
<td>Grant No</td>
<td>Discipline</td>
<td>Investigator</td>
<td>Description</td>
<td>Amount (HK$)</td>
<td>Duration (M)</td>
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<tr>
<td>HKU 7627/06M</td>
<td>Pathology</td>
<td>Professor G Srivastava</td>
<td>Therapeutic potential and mechanisms of antitumor activity of proteasome inhibitor bortezomib in extranodal NK/T-cell lymphoma, nasal type</td>
<td>1,229,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7674/06M</td>
<td>Pathology</td>
<td>Dr JWP Yam</td>
<td>Characterization of tensin2, the binding partner of D1C1 tumor suppressor in liver cancer</td>
<td>932,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7565/06M</td>
<td>Pharmacology</td>
<td>Professor CH Cho</td>
<td>Cathelicidin: a potential peptide for gastric ulcer healing</td>
<td>784,500</td>
<td>24</td>
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<tr>
<td>HKU 7681/06M</td>
<td>Pharmacology</td>
<td>Professor RYK Man</td>
<td>Gender differences in the regulation of endothelium-dependent contracting factor</td>
<td>932,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7490/06M</td>
<td>Pharmacology</td>
<td>Professor PMGR Vanhoutte</td>
<td>Genomic and proteomic basis of endothelial dysfunction in regenerated endothelium</td>
<td>954,500</td>
<td>24</td>
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<tr>
<td>HKU 7492/06M</td>
<td>Physiology</td>
<td>Dr JP Bourreau</td>
<td>Ventricular excitation-contraction coupling during septic shock: influence of adrenomedullin</td>
<td>507,500</td>
<td>24</td>
</tr>
<tr>
<td>HKU 7657/06M</td>
<td>Physiology</td>
<td>Professor YS Chan</td>
<td>Functional maturation of excitatory and inhibitory synaptic receptors in canal-and otolith-related neurons of the inferior olive</td>
<td>1,229,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7510/06M</td>
<td>Physiology</td>
<td>Dr ML Fung</td>
<td>Renin-angiotensin system in the carotid body: its expression and functional implications in intermittent hypoxia</td>
<td>654,500</td>
<td>24</td>
</tr>
<tr>
<td>HKU 7470/06H</td>
<td>Psychiatry</td>
<td>Dr AM Lee</td>
<td>A multidimensional longitudinal study of disordered eating attitudes and behaviours and its risk factors and outcome among pregnant women</td>
<td>520,300</td>
<td>30</td>
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<tr>
<td>HKU 7669/06M</td>
<td>Psychiatry</td>
<td>Professor PC Sham</td>
<td>Optimal design of genome-wide association studies for multifactorial diseases</td>
<td>532,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7555/06M</td>
<td>Surgery</td>
<td>Professor SWK Cheng</td>
<td>A prospective randomized trial of endovascular stent graft repair versus best medical treatment for patients with acute Type B aortic dissection</td>
<td>1,335,906</td>
<td>36</td>
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<tr>
<td>HKU 7560/06M</td>
<td>Surgery</td>
<td>Dr ST Cheung</td>
<td>GEP as a novel molecular target for liver cancer therapy</td>
<td>654,500</td>
<td>24</td>
</tr>
</tbody>
</table>
# List of Successful Projects for RGC CERG 2006-07

<table>
<thead>
<tr>
<th>Reference</th>
<th>Discipline</th>
<th>Principal Investigator</th>
<th>Project Title</th>
<th>Amount (HK$)</th>
<th>Duration (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKU 7574/06M</td>
<td>Surgery</td>
<td>Professor ST Fan</td>
<td>Focal adhesion kinase and cell adhesion kinase β as the potential therapeutic targets of tumor recurrence and metastasis in hepatocellular carcinoma</td>
<td>1,067,000</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7606/06M</td>
<td>Surgery</td>
<td>Professor CM Lo</td>
<td>The impact of acute phase liver graft injury on tumor recurrence after liver transplantation in patients with hepatocellular carcinoma</td>
<td>932,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7528/06M</td>
<td>Surgery</td>
<td>Dr VCH Lui</td>
<td>Investigation of cell autonomous function of Hedgehog signaling on vagal neural crest cells by conditional knockout of Smoothened in mice</td>
<td>1,279,500</td>
<td>36</td>
</tr>
<tr>
<td>HKU 7621/06M</td>
<td>Surgery</td>
<td>Professor RTP Poon</td>
<td>Sensitization of hepatocellular carcinoma (HCC) to hypoxia and chemotherapy by inhibition of hypoxia inducible factor-1α (HIF-1α)</td>
<td>920,180</td>
<td>24</td>
</tr>
<tr>
<td>HKU 7628/06M</td>
<td>Surgery</td>
<td>Professor PKH Tam</td>
<td>Study of the genetic basis of biliary atresia</td>
<td>922,500</td>
<td>24</td>
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<tr>
<td>HKU 7651/06M</td>
<td>Surgery</td>
<td>Professor PW Yuen</td>
<td>The evaluation of the clinical application of hypermethylated promoter DNA as tumor marker for the early detection of surgically salvageable residual or recurrent head and neck squamous cell carcinoma after treatment</td>
<td>646,500</td>
<td>24</td>
</tr>
</tbody>
</table>

| Total Number of Successful Projects | 64 |
| Total Amount of Grants Awarded | 64,075,885 |

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June 30, 2006