

4TH BMRC GRANT CALL RESULTS

BMRC's 4th Grant Call was launched in May 2005, and applications closed in June 2005. The grants awarded in this grant call will raise the total number of extramural projects awarded since 2001 to 239, with a total budget of \$185.65 million. This year's results reflect the nation's emphasis to build up translational research, while maintaining our strengths in basic research.

The Press Release issue for the 4th Grant Call results is available [here](#) and more information on the funded proposals is included in the table below:

S/N	Project Title	PI	Host Institution
1	Early DENGue infection and outcomes study(EDEN Study)	Adrian Ong	TTSH
2	The relationship between inflammation,endothelial dysfunction, oxidative stress,microvascular function and chronic kidney disease (CKD):A population-based case-control study	Anoop Shankar	NUS
3	Macromolecular depletion as a determinant of red blood cell aggregation and adhesion	Bjoern Holger Neu	NTU
4	Establishment of well-characterized brain tumor stem cell lines derived from primary malignant brain tumors	Carol Tang	NNI
5	Molecular studies of Angelman syndrome imprinting control	Chen Ken Shiung	NTU
6	Asthma mouse: Generation of Blomia tropicalis and Dermatophagoides pteronyssinus CD4 T cell receptor transgenic mice for investigation of the asthmatic lung model.	David Michael Kemeny	NUS
7	Elucidation of the roles of a novel protein MLL5 in cell cycle regulation and tumor suppression	Deng Lih Wen	NUS
8	Differentiation of human embryonic stem cells (hESC)into pneumocytes:co-culture of hESC with foetal lung tissue	Elaine Lim	NUS
9	Study the molecular mechanisms of bFGF induced neuronal trans-differentiation of bone marrow stem cells and the therapeutic potential of treatment of spinal damage	Feng Zhi Wei	NNI
10	Study the mechanisms of ASK1 and NF- κ B in MPP+induced neuronal apoptosis and neuroprotection from IGF-1	Feng Zhi Wei	NNI

11	Novel Brain Reactive Autoantibodies and Magnetic Resonance Imaging in Systemic Lupus Erythematosus: Potential Pathogenetic Mechanisms in neuropsychiatric Lupus	Fong Kok Yong	SGH
12	Serotonin receptor subtypes expressed by neural progenitor cells and the molecular pharmacology of antidepressant-induced cell proliferation and neurogenesis	Gavin Stewart Dawe	NUS
13	Effects of Dynamic Tension on Degenerated Human Annulus Fibrosus and Nucleus Pulposus Cells:an In Vitro Study	Hee Hwan Tak	NUS
14	Isolation of multipotent progenitor cells from the retina of the GFP-transgenic pig and transplantation to the pig retina in conjunction with biodegradable polymer scaffolds	Henry Klassen	SERI
15	Proteomic Approaches for Biomarker Discovery in Gastric Cancer	Ho Meng Fatt	NCC
16	Medaka fish as a model for stem cell research: Molecular stem cell signature and potential of adult male germ cells for somatic differentiation and programmed sperm production	Hong YunHan	NUS
17	Development of a Gamma Delta T cells therapeutic regimen for human nasopharyngeal carcinoma	Hui Kam Man	NCC
18	Dissecting the Roles of Scaffolding Proteins in Ras Signaling Pathways	James Tam	NTU
19	towards the design of specific anti-inflammatory drugs: crystal structure determination of the TAK1 protein kinase	Julien Lescar	NTU
20	Understanding the role and regulation of the proto-oncogene c-Jun during cell survival and apoptosis	Kanaga Sabapathy	NCC
21	To develop reliable and robust biomarkers in breast cancer chemotherapy through high-throughput proteomic profiling	Lee Soo Chin	NUH
22	Cell biology analysis and 3D computational modeling of the production of the localized RanGTP concentration and its role in mitotic progression	Li Hoi Yeung	NTU

23	A Systems Biology Approach to Elucidate the Role of Adherent and Tight Junctions as Mechanotransducers in Regulating Cell Proliferation	Lim Chwee Teck	NUS
24	Molecular epidemiology of nephropathy secondary to type 2 diabetes	Lim Su Chi	AH
25	Medicinal Chemistry: Total Synthesis and Biological Evaluation of Natural Products and Analogs with Interesting Biological Activities.	Loh Teck Peng	NTU
26	Cellular and molecular mechanisms of BNIP-2 functions in cell morphogenesis, cell-cell adhesion and cell polarity during neuronal differentiation and cancer development	Low Boon Chuan	NUS
27	Protein Structure, Autoantibodies and Stroke	Low Chian Ming	NUS
28	Investigation of the class A macrophage scavenger receptor (SR-AI) in microbial recognition and sensing	Lu JinHua	NUS
29	Surface Enhanced Raman Spectroscopic Bio-fluid Analysis using Metallic Nano-structures	Malini Carolene Olivo	NCC
30	Elucidating the arrhythmogenic mechanisms of calcium overload in myocardial ischemia and reperfusion	Martin Buist	NUS
31	Aneuploidy Systematic Identification of Oncogenic Cellular Pathways and Processes in Gastric Cancer for Patient Stratification and Personalized Therapy	Patrick Tan	NCC
32	Mycobacterial HSP70 cross-presentation: Defining the role of DC-T lymphocyte interactions and G-protein coupled receptor(s)	Paul MacAry	NUS
33	Roles of Stem Cell Factor/c-Kit (SCF/c-Kit) and Therapeutic Effects of Glivec/STI571 in Keloid and Scar Pathogenesis	Phan Than T	NUS
34	An investigation of angiogenic factors in normal pig retina and in retina made ischaemic by selective in vivo embolisation of the retinal circulation with fluorescent microspheres	Roger W Beuerman	SERI

35	X-ray crystallographic studies to explore the detailed DNA/RNA unwinding mechanisms of the viral helicases from SARS and hepatitis C	Rupert Willmouth	NTU
36	Reactive Oxygen Species-dependent Inhibition of MAP Kinase Phosphatase for Sensitization of Tumor cells to TRAIL-induced	Shazib Pervaiz	NUS
37	Structural and functional characterization of Sprouty -Cbl complexes	Sivaraman Jayaraman	NUS
38	Changes in Functional Connectivity of fMRI Brain Activation at Various Stages in the Progression of Schizophrenia	Steven Graham	NUS
39	Survival of Mycobacterium tuberculosis inside the Phagolysosomes of Activated Macrophages: Relevance for Persistence, Drug Susceptibility and Vaccine Efficiency	Sylvie Alonso	NUS
40	The genetics of high density lipoprotein metabolism	Tai E Shyong	SingHealth
41	Molecular and Cellular Characterization of Blastocystis Programmed Cell Death: Identification of novel genes and pathways	Tan Kevin SW	NUS
42	The roles of fasting-induced adipose factor (FIAF) during skin homeostasis and wound repair in normal and diabetic conditions.	Tan Nguan Soon	NTU
43	Regulation of WAS protein (Wiskott Aldrich Syndrome Protein) by its interacting proteins	Thirumaran Thanabalu	NTU
44	Ex Vivo Expansion Of Cord Blood Cells On Mesenchymal Stem Cells	William Hwang Ying Khee	SingHealth
45	Investigating the effect of caloric restriction on neuronal glucose metabolism in an Alzheimer's disease animal model.	Wong Boon Seng	NUS
46	Identifying the glycan profile on apolipoprotein E polymorphism as clinical tool for Alzheimer's disease	Wong Boon Seng	NUS
47	Solution Structure and Dynamics of Hemoglobin as a Basis towards Developing a New Generation of Recombinant Hemoglobins as Blood Substitutes	Yang Daiwen	NUS

48	Developing A High-Throughput Platform For Organism-Wide Identification And Characterizations Of Enzymes	Yao Shao Qin	NUS
49	Quantitative Proteomics of the Intraerythrocytic Developmental Cycle of the Human Malaria Parasites Plasmodium falciparum	Zbynek Bozdech	NTU
50	Real time noninvasive imaging of skeletal myoblasts transplanted into the heart using quantum dot /chitosan nanoparticles	Zhang Yong	NUS