

BMRC 3rd Grant Call 2004 - Results

BMRC's 3rd Grant Call was launched on 3 May 2004, and applications closed on 3 June 2004. This year saw a 95% increase in submissions, and after the process of peer review, 74 projects were selected for funding that totalled \$48.2 million. Of the 74 successful proposals, 45 are for basic science and the remaining 29 on translational research.

The Press Release issue for the 3rd Grant Call results is available [here](#) and more information on the funded proposals is included in the table below:

No.	PI	Host Institution	Project Title
1	Carol Tang	NCC	Isolation and directed differentiation of brain tumor stem cells
2	Hui Kam Man	NCC	Using a molecular signature for human hepatocellular carcinoma as a proof-of-concept experiment for designing cancer diagnostic nano chips
3	Paula Lam	NCC	Engineering HSV-1 amplicon vectors that could target human glioma cells to deliver an apoptotic effect
4	Zheng Wei	NCC	Fluorescence Excitation-Emission Matrix spectroscopy and Confocal Microscopy imaging for early detection of Precancerous tissue in the head and neck
5	Eugene Kwang Wei Sim	NHC	Regulatable vascular endothelial growth factor gene expression system for cardiac repair
6	Winston Shim	NHC	Dose response relationship and mechanistic effects of adult human bone marrow-derived cardiomyocyte and endothelial progenitors in repairing infarcted myocardium
7	Christopher Chen	NNI	Multimodal Magnetic Imaging Study of the Efficacy of Nitric Oxide in Stroke
8	Ivan Ng	NNI	Assessing a neurosurgical robot (Neurobot) in in-vitro and in-vivo (animal/cadaveric) models for accuracy, safety and its potential clinical utility
9	Philippe Taupin	NNI	Isolation of homogenous populations of neural stem cells from primates non-human brain tissues
10	Wong Meng Cheong	NNI	To validate the integrity of alkylator chemotherapy induced methyl-Guanine-MisMatch Repair-Ataxia Telangiectasia Mutated-p53-apoptotic Bcl (meG-MMR-ATM-p53-Bcl) pathway signalling in Brain Tumour Stem Cells (BTSCs)

11	Yee Woon Chee	NNI	Homologous recombination of gene correction of dystrophin mutations using a novel fusion protein nuclear transfer system
12	Yu Wei Ping	NNI	Functional study of a novel intronic promoter and its protein products in the synapsin III locus
13	Yu Wei Ping	NNI	Transcriptional regulation of protocadherin locus
14	Bee Na Lee	NTU	Characterization of NPS6, a non-ribosomal peptide synthetase gene in <i>Aspergillus fumigatus</i> and identification of fungal virulence genes using a proteomic approach
15	Heese, Klaus	NTU	Signal transduction in neuronal stem cells and in-vivo imaging (PET/MRI/MRS) in a living alzheimer's disease mouse model
16	Jaume Torres	NTU	Optimisation of a mimic transmembrane peptide delivery system, consisting of a chimeric bacterial-hairpin-like construct, for specific labelling of membrane proteins. In vitro and in vivo application to structure and function of the SARS CoV E protein
17	Koh Cheng Gee	NTU	The role of the phosphatase POPX in the regulation of cell signalling and cell morphology
18	Peter Cheung	NTU	Regulation of the TAK1 and MEKK3 protein kinases in the inflammatory response
19	Peter Preiser	NTU	Role of multigene families in adaptation and immune evasion of the malaria parasite
20	Sze Chun Chau	NTU	A novel mixed-species biofilm approach to screen for promoters with potential for use in pathogen biosensors
21	Tan Suet Mien	NTU	Leukocyte integrin alpha cytoplasmic tails: diversity and functional specialization
22	Yoon Ho Sup	NTU	Molecular Characterization and regulatory mechanism of immunosuppressant FK506 binding protein 38 (FKBP38) in Apoptosis
23	Adeline Seow	NUS	The Singapore Lymphoma Study: a multi-centre investigation of the etiologic and prognostic determinants of lymphoid malignancies in Singapore

24	Alex Urs Boelsterli	NUS	Identifying genetic abnormalities in mitochondria as determinants of susceptibility to drug-induced idiosyncratic liver injury
25	Barry Halliwell	NUS	Determination of the antioxidant uric acid and its oxidation products as specific biomarkers of oxidative stress in human studies
26	Barry Halliwell	NUS	Iron, atherosclerosis, and neurodegeneration - a crucial role for iron and zinc in atherosclerosis and neurodegenerative diseases?
27	Barry Pereira	NUS	The role of intramuscular innervation in the functional recovery of lacerated skeletal muscles after repair- Investigating morphological and molecular changes after repairing the intramuscular nerve branch
28	Bian Jinsong	NUS	Alpha 1A-adrenergic receptor stimulation regulates HERG potassium channel function
29	Chew Fook Tim	NUS	Allergens for diagnosis, treatment and control of dust mite allergy
30	Choolani Mahesh	NUS	Enhancing enrichment of fetal primitive erythroblasts from maternal blood by identification of unique fetal surface antigens and the development of a novel MEMS device to deplete adult anucleate erythrocytes
31	David Michael Kemeny	NUS	Characterization of a novel CD8 T-cell mediated immunoregulatory pathway that prevents type (IgE) hypersensitivity and systemic lupus erythematosus (SLE)
32	Francis Tay Eng Hock	NUS	Development of Wearable Vital Signs Monitoring sensors with Wireless Communications
33	Gan Yunn Hwen	NUS	Genetic and immune determinants of pathogen virulence and host susceptibility in melioidosis
34	Henry Mok Yu Keung	NUS	Identification and structural/functional studies of chelerythrine homologues as inhibitors of Bcl-xl
35	Hooi Shing Chuan	NUS	Biomarkers that regulate metastatic potential in colorectal cancer cells: the role and regulation of CDCR4 and B1 integrins
36	Huang Zhiwei	NUS	Optical Bioimaging of premalignant lesions in the gastrointestinal tract: Development of endoscope-based raman spectroscopy and NIR autofluorescence imaging technique

37	Hutmacher Dietmar	NUS	Bone tissue engineering by using novel scaffold systems doped with heparan sulphate
38	James Hui	NUS	Enhancement of meniscus repair using mesenchymal stem cells in a porcine model
39	Jeffrey S. Armstrong	NUS	The role of mitochondrial superoxide in hyperglycemia-mediated signal transduction in the endothelium
40	K Jeyaseelan	NUS	Biomarkers in stroke: Effects of novel venom components on MCAo induced cerebral ischemia in rat models
41	Ko Tun Kiat	NUS	Elucidating the mechanism(s) that is involved in the cytoplasmic retention of the transcription factor RUNX3 and its effect on gastric cancer
42	Kuleshova Lilia	NUS	Study on vitrification of cells and tissues
43	Lee Beng-Huat, Martin	NUS	Regulation of subfamily V nuclear receptors by SUMO-modification and DEAD-box helicases
44	Leung Ka Yin	NUS	Studies of bacterial secretion systems as targets for novel antimicrobials
45	Liang Fengyi	NUS	Functional characterization of CROSP: a cytoskeleton-related oligodendroglia-specific novel protein
46	Lynne Lim	NUS	Genotypic and Phenotypic Correlations of Hereditary Non-Syndromic Hearing Loss in Singapore: Connexin 26, Connexin 30, Pendrin and A1555G Mutations
47	Madhav Bhatia	NUS	"Hydrogen sulphide" a novel mediator of inflammation
48	Marie-Veronique Clement	NUS	Study to assess superoxide-mediated activation of the pro-survival kinase, Akt through a Na ⁺ /H ⁺ exchanger 1-dependent activation of PI3K and/or an oxidation-mediated inhibition of the phosphatase PTEN in tumor cells
49	Ong Choon Nam	NUS	A prospective study of antioxidant biomarkers in the etiology of coronary heart disease

50	Phan Toan Thang	NUS	The role of connective tissue growth factor (CTGF) in the biology of epithelial-mesenchymal interactions of scar pathogenesis and skin aging
51	Philip K Moore	NUS	An investigation of the cardiovascular significance of hydrogen sulphide: role in the vascular complications of diabetes mellitus
52	Philippa Melamed	NUS	A system biology approach to elucidate the frequency decoding of GnRH signals that governs the differential expression of mammalian gonadotropin subunit genes
53	Philip K Moore	NUS	Nitric oxide as an endogenous inhibitor of proteasome - significance for inflammatory and neurodegenerative disease
54	Ratha Mahendran	NUS	Breaking tolerance to tumour antigens using anti-IL-10, PGE2 or TGF-B in conjunction with BCG or cytokine gene immunotherapy in murine models of bladder cancer
55	Samuel Chong	NUS	Automated Mutation/SNP Lab-on-a-Chip Devices for Molecular Diagnostics and Genomic Research
56	Shen Han-Ming	NUS	Critical roles of TNF signalling molecules in reactive nitrogen species-induced cell death
57	Sim Meng Kwoon	NUS	Effects of des-aspartate angiotensin I on plasma levels of insulin and glucose in type II diabetic animals
58	Soong Tuck Wah	NUS	Investigations into the neurobiological consequences of overloading iron into neurons via an iron transporter: implications in Parkinson's disease
59	Soong Tuck Wah	NUS	Implications of alternative splicing of voltage-gated calcium channel 1.2 subunit in cardiovascular physiology and disease
60	Tan May Chin, Theresa	NUS	Hepatic microRNAs: expression, function and potential role in disease
61	Tay Sam Wah, Samuel	NUS	Role of diabetes mellitus and retinoic acid in the development of congenital heart defects in the mouse embryo

62	Wenk Markus	NUS	Lipidomics of membrane signalling as a tool in clinical prognostics
63	Wong Hee Kit	NUS	Mechanical analysis of human lumbar facet joints after artificial disc replacement
64	Yang Hong Yuan	NUS	Genome-wide screening for genes that regulate cellular dynamics of lipid bodies in the budding yeast <i>Saccharomyces cerevisiae</i>
65	Yap Hui Kim	NUS	Th2 cytokines in minimal change nephrotic syndrome – in vivo and in vitro study of the underlying molecular mechanisms
66	Yeoh Khay Guan	NUS/NUH	Identification of novel biomarkers for the screening of gastric cancer in Singapore
67	Yeong Foong May	NUS	Understanding the mechanistic links between late mitotic events and cytokinesis, and cell separation using <i>Saccharomyces cerevisiae</i> as the model system
68	Yong Eu Leong	NUS	Molecular mechanisms whereby non-protein small molecules are recruited to chromatin and their role as co-regulatory molecules for hormone-mediated steroid/nuclear receptor signalling
69	Yoon Pin Lim	NUS	Phosphoproteomic fingerprinting and identification of activated tyrosine kinases and substrates in laser-captured microdissection-purified human breast cancer epithelial cells as potential molecular markers
70	Tai E-shyong	Sing Health	A study to determine the effects of common genetic variants at the CETP and LIPC loci on reverse cholesterol transport
71	Tan Eng King	Sing Health	Haplotype tagging analysis in Parkinson's Disease
72	Michael Chee	Sing Health	A longitudinal study of cognitively normal elders relating brain structure, function and cognition to factors known to modulate cognition in the elderly
73	Leonard Ang	SNEC	The ex vivo expansion of ocular surface epithelial cells for transplantation – Novel use of cord blood and fetal fibroblasts and stem cell

74	Howe Hwee Siew	TTSH	A novel anti-inflammatory role for statins as therapeutic agents in systemic lupus erythematosus
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