

## NMRC Awarded Projects Competitive Research Grants - November 2019 Grant Calls

### Clinician Scientist Individual Research Grant (CIRG) 19 November Grant Call

Application ID	Project ID	Project Title	PI name	Host institution
CIRG19nov-0001	MOH-000525	ASCL1 as an oncogenic master transcription factor and therapeutic target in neuroblastoma	Takaomi Sanda	National University of Singapore
CIRG19nov-0004	MOH-000526	Study designs and analytic methods for improving the evaluation of vaccines and other preventive measures against infectious diseases by using within-unit comparison	Cheung Yin Bun	Duke-NUS Medical School
CIRG19nov-0006	MOH-000527	Defining the super-enhancer landscapes in multiple myeloma and its clinical implication	Chng Wee Joo	National University of Singapore
CIRG19nov-0015	MOH-000528	Targeting the epigenetic circuits in MLL1-rearranged leukemia for telomerase inhibition	SHANG LI	Duke-NUS Medical School
CIRG19nov-0020	MOH-000529	Biologics development for immunomodulatory therapy in multiple myeloma	Makoto Yawata	National University of Singapore
CIRG19nov-0024	MOH-000530	Understanding the pathogenesis of a foodborne strain of Group B Streptococcus unique to Singapore and Southeast Asia	Swaine Chen	National University of Singapore
CIRG19nov-0030	MOH-000531	A Biomechanical Sensing Model of Scleral Remodeling in High Myopia	Hoang Quan Van Manh	Singapore Eye Research Institute
CIRG19nov-0031	MOH-000495	Precision medicine using single cell genomics, transcriptomics, proteomics and lipidomics in fluid biopsies to diagnose and manage primary vitreoretinal lymphoma	Anita Chan	Singapore Eye Research Institute
CIRG19nov-0042	MOH-000532	The role of the maternal and infant microbiome/metabolome unit on the development of atopic dermatitis in early life – an integrated multi-omics approach	Lee Bee Wah	National University of Singapore
CIRG19nov-0044	MOH-000533	Cytokine-induced rat model of minimal change nephrotic syndrome: mechanism of interleukin-27-induced podocyte injury	Yap Hui Kim	National University of Singapore

### Clinician Scientist Individual Research Grant - New Investigator Grant (CNIG) 19 November Grant Call

Application ID	Project ID	Project Title	PI name	Host institution
CNIG19nov-0007	MOH-000583	Determining the differences in hepatic insulin resistance in Indian and Chinese men	Lim Yuan Ling Amanda	National University Hospital
CNIG19nov-0011	MOH-000582	The Role of Caveolin-1 in Inner Retina Neurovascular Coupling in Experimental Glaucoma	Rachel Chong Shujuan	Singapore Eye Research Institute
CNIG19nov-0006	MOH-000589	Characterizing the Genome and Epigenome of Congenital Heart Disease and Functional Validation for Disease-related Variants [PROfiling the Genome and Epigenome of coNgenital heart disease studY (PROGENY)]	Chen Ching Kit	National University of Singapore
CNIG19nov-0014	MOH-000591	Developmental Programming of Chronic Kidney Disease- Role of Renal Inflammation	Lu Liangjian	National University Hospital
CNIG19nov-0017	MOH-000592	Biomarkers of Homologous Recombination Deficiency to Predict Outcomes in Patients with Triple Negative Breast Cancer Treated with Olaparib or Olaparib – Immunotherapy Combination	Tan Jing Ying Tira	National Cancer Centre Singapore

### Open Fund - Individual Research Grant (OFIRG) 19 November Grant Call

Application ID	Project ID	Project Title	PI name	Host institution
OFIRG19nov-0015	MOH-000521	Molecular control of totipotency and cell fate plasticity	Tee Wee Wei	Institute of Molecular and Cell Biology
OFIRG19nov-0053	MOH-000522	A patented antibody for traumatic brain injury	Liao Ping	National Neuroscience Institute
OFIRG19nov-0066	MOH-000523	Modulation of chimeric antigen receptor T cell (CAR-T) signalling to enhance anti-cancer T cell function	Nicholas Robert John Gascoigne	National University of Singapore
OFIRG19nov-0096	MOH-000524	Investigate the viral/host determinant(s) for the vertical transmission of flaviviruses using mouse models	Satoru Watanabe	Duke-NUS Medical School
OFIRG19nov-0037	MOH-000542	Cilia and airway disease: Genes, mechanisms and therapeutic strategy	Sudipto Roy	Institute of Molecular and Cell Biology
OFIRG19nov-0019	MOH-000558	Host cytokine modulation in the amelioration of HFMD neurological complications	John Chua Jia En	National University of Singapore
OFIRG19nov-0021	MOH-000559	Functional dissection of SV2C as a novel Parkinson's disease associated gene	Foo Jia Nee	Nanyang Technological University
OFIRG19nov-0041	MOH-000560	Defining the role of NF1 in brain tumor microenvironment	Ho Ai-wei, Ivy	National Neuroscience Institute
OFIRG19nov-0050	MOH-000561	ASC as a new target for fighting inflammatory diseases	Wang Linfa	Duke-NUS Medical School
OFIRG19nov-0055	MOH-000562	Mapping the signaling pathways coupling mitochondrial functions with the invasive hyphal growth in the fungal pathogen Candida albicans	Wang Yue	Institute of Molecular and Cell Biology

OFIRG19nov-0063	MOH-000563	Identifying circuit & molecular pathways that underlie tremor using models of Spinocerebellar ataxia 3	Sherry Shiyng Aw	Institute of Molecular and Cell Biology
OFIRG19nov-0081	MOH-000564	Direct and multiplexed analysis of circulating RNAs	Huilin Shao	National University of Singapore
OFIRG19nov-0090	MOH-000565	FluCluster-AI - Innovations in virus transmission cluster analysis	Sebastian Maurer-Stroh	Bioinformatics Institute
OFIRG19nov-0105	MOH-000566	Targeting Host-Pathogen Synergy in Wound Infection	Guillaume Thibault	Nanyang Technological University
OFIRG19nov-0112	MOH-000567	Contribution of arterial resident macrophage in abdominal aortic aneurysm development	Veronique Angeli	National University of Singapore
OFIRG19nov-0114	MOH-000568	PIM1 Integrates PPAR $\gamma$ Signaling with Epigenomic Reprogramming to Promote Brown Fat Development and Function	Xu Feng	Institute of Molecular and Cell Biology
OFIRG19nov-0116	MOH-000569	Identifying Novel Epigenetic Alterations in Asian Patients with Breast Cancer for Improved Risk Prediction and Molecular Classification	Ann Lee-Lim Siew Gek	National Cancer Centre Singapore
OFIRG19nov-0089	MOH-000570	Molecular profiling using CRISPR-Cas9 to reveal the unique metastatic features in human hepatocellular carcinoma.	Hui Kam Man	National Cancer Centre Singapore
OFIRG19nov-0106	MOH-000571	The role of cytoskeletal microtubule remodeling as a tractable therapeutic target in cancer metastasis	Tam Wai Leong	Genome Institute of Singapore

### Open Fund - Young Individual Research Grant (OFYIRG) 19 November Grant Call

Application ID	Project ID	Project Title	PI name	Host institution
OFYIRG19nov-0001	MOH-000534	In vivo studies of development of ALT tumors and their response to novel ALT-targeted therapies	Maya Jeitany	Nanyang Technological University
OFYIRG19nov-0005	MOH-000535	Novel enterovirus A71 host dependency factors as broad-spectrum host-directed antiviral therapy targets	Tan chee wah	Duke-NUS Medical School
OFYIRG19nov-0073	MOH-000536	Landscape of transcriptionally active chromatin in brain health and malignancies	Chen Ye	National University of Singapore
OFYIRG19nov-0008	MOH-000537	DAP3 Reshapes the Cancer Transcriptome as a Master Regulator of RNA Processing: Mechanistic Understanding and Therapeutic Potential	Han Jian	National University of Singapore
OFYIRG19nov-0016	MOH-000538	Role of GAS1-ROCK2 axis in the regulation of liver metabolism under pathological conditions	Liu Chungang	Institute of Molecular and Cell Biology
OFYIRG19nov-0019	MOH-000539	Developing a protease-substrate tracking tool for determining altered protease landscape in cancer	Alli Shaik Asfa	Institute of Molecular and Cell Biology
OFYIRG19nov-0059	MOH-000540	Microfluidic Droplet-Based High-Throughput Functional Screening of Single B Cells for Monoclonal Antibody Discovery	Tay Zirui Matthew	A*STAR Infectious Diseases Labs
OFYIRG19nov-0067	MOH-000543	Evolution of human cells following essential gene inactivation	Katherine Larrimore	Skin Research Institute of Singapore
OFYIRG19nov-0028	MOH-000544	Targeting a novel mutant TP53-BCAR1 complex to inhibit cancer metastasis	GUO KUNYAO, ALVIN	Duke-NUS Medical School
OFYIRG19nov-0066	MOH-000545	Regulation of the tricarboxylic acid cycle by one-carbon metabolism in Epstein-Barr virus-driven transformation	Wang Liang Wei	Singapore Immunology Network
OFYIRG19nov-0024	MOH-000546	The regulation and function of BAX $\beta$ , a potent inducer of apoptosis, in cancer.	Chin Hui San	Duke-NUS Medical School
OFYIRG19nov-0010	MOH-000547	Optimal treatment target identification from longitudinal electronic medical records	Willem van den Boom	National University of Singapore
OFYIRG19nov-0051	MOH-000548	Elucidating molecular mechanisms of cellular viral-hijacking to validate known and novel therapy targets	Guillaume Robert Carissimo	A*STAR Infectious Diseases Labs
OFYIRG19nov-0020	MOH-000549	Mammalian embryonic pluripotency: Characterization of a candidate gene linked to monozygotic twinning.	Franziska Paul-Shushan	Institute of Molecular and Cell Biology
OFYIRG19nov-0033	MOH-000550	Machine learning to estimate effects of in vitro fertilization and other assisted reproductive technologies on early adolescent cardiometabolic health	Jonathan Huang	Singapore Institute for Clinical Sciences

OFYIRG19nov-0074	MOH-000551	Clone Wars: Investigating clonal interactions and their functional contribution to gastric tumorigenesis and development	Teresa Ho	p53 Laboratory
OFYIRG19nov-0053	MOH-000552	Investigating the Role of Top-Down Cortical Control in Feeding Behavior and Energy Homeostasis	Ng Yi Han	National University of Singapore
OFYIRG19nov-0075	MOH-000553	Testing a bio-behavioural toolbox designed to promote self-regulatory eating behaviours in childhood	Keri McCrickerd	Singapore Institute for Clinical Sciences
OFYIRG19nov-0054	MOH-000554	Neural circuitry underlying compulsive-eating behavior	Hasan Mohammad	Institute of Molecular and Cell Biology
OFYIRG19nov-0056	MOH-000555	Illuminating neuromodulatory role of primary cilia cAMP signaling in central satiety control	Phua Siew Cheng	Institute of Molecular and Cell Biology
OFYIRG19nov-0069	MOH-000556	Autologous neutrophil-infused PCL-TCP scaffold for bone tissue engineering: therapeutic efficacy in a clinically relevant rabbit mandibular model and molecular mechanism	Thanuja DK Herath	National Dental Centre Singapore
OFYIRG19nov-0045	MOH-000557	Regulation of mitochondrial dynamics and function by O-GlcNAc transferase (OGT) in brown adipose tissue	Ong Qunxiang	Institute of Molecular and Cell Biology

#### Clinical Trial Grant - Investigator Initiated Trial) 19 November Grant Call

Application ID	Project ID	Project Title	PI name	Host institution
CTGIIT19nov-0002	-	Early oral step-down versus continued intravenous antibiotic therapy for uncomplicated Gram-negative bacteraemia	David Lye	Tan Tock Seng Hospital
CTGIIT19nov-0004	-	A Biomarker Enrichment Phase II trial of 177Lu-DOTATATE in Metastatic Nasopharyngeal Carcinoma	Daniel Tan	National Cancer Centre Singapore