

University Surgical Cluster
RESEARCH

Grants (Year 2020)

No	Research Title	Principal Investigator (PI) / Co-Investigator (Co-I) / Collaborator	Actual Funding to USC	Funding Source
Breast & Trauma Surgery				
1	BREAsT screening Tailored for HEr ("BREATHE")	PI – Mikael Hartman	\$ 3.2 million	JurongHealth Fund Board
2	Breast Cancer Screening and Prevention Programme (BCSPP)	PI – Mikael Hartman	\$ 2 million	NUHS Grant
3	AI Assisted Breast Cancer Diagnosis: Prototype Development and Clinical Validation	PI – Mikael Hartman	\$ 249,600	NHIC INNOVATION TO DEVELOP ("I2D") GRANT – I2START PROGRAM
4	Understanding the Etiology of Breast Mastitis	PI – Mikael Hartman Co-I – Thomas Choudary Collaborators – Chan Ching Wan, Li Jingmei	\$ 148,500	NUHS Seed Fund – MOE Tier 1
Cardiac, Thoracic & Vascular Surgery				
1	Translational Biophotonics Innovation Platform @ SBIC	Lead PI – Malini Olivo (SBIC) Team PIs – Steven Tien Guan Thng, Mahesh Choolani, Maurice Van Steensel, Quek Swee Tian, Yong Geng Goh, Jackie Ho Pei, Ann Lee Siew Gek, Bhanu Prakash KN, Teng Jinghua, Dinish US	\$ 258,000	RIE2020 Health & Biomedical Sciences (HBMS) Industry Alignment Fund Pre- Positioning (IAF-PP) (\$ 8,387,040)
Colorectal Surgery				
1	Understanding, Influencing and empowering the spouses of colorectal cancer patients	PI – Tan Ker Kan Co-Is – Lim Tian Zhi, Dedrick Chan	\$ 675,000	NMRC Clinician Scientist Award
2	Identification and characterisation of dedifferentiating colorectal cancer transcriptomic targets using single cell RNAseq	PI – Dedrick Chan	\$ 606,234	NMRC Research Training Fellowship
3	Testing of Drug Combinations Identified by QPOP in Primary and Paired Metastatic Colorectal Cancer Tissue	PI – Tan Ker Kan Co-Is – Bettina Lieske, Lee Kuok Chung, Chong Choon Seng, Dedrick Chan, Alfred Kow, Yong Wei Peng, Shi Wang	\$ 150,000	NUHS Seed Fund – MOE Tier 1
General Surgery				
1	WisDM: Institute for Digital Medicine – A Collaborative programme between Medicine and the N.1 Institute for Health	Lead PI – Dean Ho Co-PI – Ngiam Kee Yuan	\$ 2.5 million	NUS (\$ 7.5 million)
2	The NUS NANONASH PROGRAMME: A Crosss Disciplinary Approach to address Non-Alcoholic SteatoHepatitis (NASH), a serious epidemic around the world and in Singapore	PI – Lee Chuen Neng	\$ 2 million	NUS
3	Optimizing the Robotic Endoscope for Clinical Application	PI – Kaan Hung Leng	\$ 452,500	NMRC Research Training Fellowship
4	Safety Of The Ingestible Magnetically Inflated Balloon Capsule (IMI-BC) For The Treatment Of Obesity	PI – Kaan Hung Leng	\$ 100,000	NMRC Clinician Innovator Development Award
5	Developing a Hybrid Robotic Retractor System for Non-Traumatic Tissue Retraction	PI – Kaan Hung Leng Co-I – Raye Yeow Chen Hua	\$ 50,000	NUHS-NUS Engineering in Medicine Fund (\$ 100,000)
6	Routes to Cancer Diagnosis - Establishing the Patient's Cancer Journey and Understanding the Underlying Health Seeking Behavior	PI – Tiffany Gan	\$ 22,500	NUS Pitch for Funds

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Hepatobiliary & Pancreatic Surgery				
1	The Role of the Gut-Liver Axis in New Onset Diabetes Mellitus After Liver Transplantation (NODALT) – Transplant Related Immunology and Microbiome (TRIM-Liver) Study	PI – Alfred Kow Co-Is – Mark Muthiah, Kevin Tan, Khoo Chin Meng, Zhang Yongliang, Jarrod Tan , Nick Gascoigne, Tan Poh Seng Collaborators – Krishnakumar Madhavan , Iyer Shridhar , Glenn Bonney , Daniel Huang, Lee Guan Hwei, Dan Yock Young, Eileen Koh	\$ 319,000	NUHS
2	PRESCRIBE: Mobile Game to Train Health Professional Learners on Safe Prescribing in Clinical Practice	PI – Alfred Kow Co-Is – Lau Tang Ching, Gavin Dawe, Tan Chay Hoon, Low Seow Peng, Benjamin Goh , Victor Loh, Gene Chan, Denise Goh, Zhou Wentao, Jackie Soong, Christine Teng	\$ 180,000	NUS Learning Innovation Fund (Technology) LIFT
3	Interplay between 3'UTR Shortening and MicroRNA Regulation: Non-genetic Control of Cancer Driver Gene Expression in Hepatocellular Carcinoma	PI – Glenn Bonney , Yvonne Tay	\$ 100,000	Joint NCIS and NUS Cancer Programme Seed Funding
4	"Bedside-to-Bench" and Back Again: An Interventional Trial Using Ex-Vivo Drug Sensitivity Testing to Personalize Chemotherapy in Pancreatic Cancer	PI – Glenn Bonney	\$ 50,000	NCIS Centre Grant Seed Funding Program
5	MOOC Learning Surgery In STYLE (Surgery Teaching by real Examples)	PI – Alfred Kow	\$ 12,868	NUS Learning Innovation Fund (Technology) LIFT
Neurosurgery				
1	Use of a Wirelessly-Powered Intracranially Implanted Near-Infrared Light Delivery Device for Neuro-Protection in Rodent Model of Parkinson's Disease	PI – Aaron Foo	\$ 50,000	MOH Clinician Scientist Residency Seed Funding
2	The Burden of Health-Related Quality of life (HRQoL) in Glioma and Validation of a Disease-specific HRQoL Instrument for Brain Tumours in Singapore	PI – Mervyn Lim	\$ 49,491	SCS Cancer Research Grant 2020
3	Deciphering Aging-Dependent Human Neuronal Activity Changes, Tissue Microenvironment and Gene Expression Patterns	PI – Jai S Polepalli Co-Is – Yeo Tseng Tsai , Vincent Nga	-	MOH Healthy Longevity Catalyst Awards (\$ 69,600)
Plastic, Reconstructive & Aesthetic Surgery				
1	Development of User-Friendly 3D-printed Surgery Tools for Plastics Surgery	PI – Lee Hanjing	\$ 24,996	NTUitive NAMIC@NUS Programme - National Additive Manufacturing Innovation Cluster @ NUS
Upper Gastrointestinal Surgery				
1	The Importance of Structural Changes in Diaphragmatic Crura in the Development of Gastro-esophageal Reflux After Sleeve Gastrectomy	PI – Law Jia Hao Mentor – Asim Shabbir	\$ 20,000	NUHS Clinician Scientist Program - Residency
Urology				
1	Robot-Optimized Bladder Endoscopy Resection of Tumour (ROBERT)	PI – Edmund Chiong Co-Is - Phee Soo Jay , Miyasaka Muneaki , Wu Qing Hui , Wang Ziting	\$ 147,000	NUHS Seed Fund – MOE Tier 1
2	Phallus Armour – An Assistive Device in Erectile Dysfunction	PI – Joe Lee Co-I – Yen Chin-Chiuan	\$ 50,000	NUHS Innovation Grant
3	COIL N LOCK; A Device to Secure Drainage Tubings After Surgery	PI – Kelven Chen Co-Is – Yen Ching-Chiuan , Edmund Chiong , Wu Qing Hui	\$ 50,000	NUHS Innovation Grant