

**I2D Projects Awarded in FY2023**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
3D Printed osteoinductive bone void filler	Woo Yew Lok	SGH	MedTech	Musculoskeletal
Evaluating hCMV-specific T cell and NK cell response with a rapid assay to guide the clinical management of hCMV reactivation	Anthony Tanoto TAN	Duke-NUS	BioPharma	Infectious Diseases

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**I2D Projects Awarded in FY2022**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
CXCL5, a potential protein therapy for systemic lupus erythematosus	Fan Xiubo	SGH	BioPharma	Rheumatology & Immunology
Design, Development, Clinical Trial and Pilot Manufacturing of Contaminant-free Nasogastric Tube Tip Locator (Puffinder)	Siti Zubaidah Mordiffi	NUHS	MedTech	Oral and Gastrointestinal
Active delivery of Sirolimus-loaded ultraSound-responsive Multi-cavity microParticle (SSMPs) for the treatment of vascular restenosis	Yeo Khung Keong	NHCS	MedTech	Cardiology

**I2D Projects Awarded in FY2021**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Frailty Screening using SCREENii (Space-saving, Cost-efficient, Responsive, Economizes time, Easy-to-use, uses Normative data, Innovative, Intelligent)	Pua Yong Hao	SGH	MedTech	Musculoskeletal
Evaluation of an intraocular delivery system for VEGF siRNA in treating retinal disorders	Wang Xiaomeng	SERI	BioPharma	Ophthalmology
Nanoprobe-Based Mutation Assays for Precision Medicine in Colorectal Cancer Treatment	Emile Tan Kwong Wei	SGH	MedTech	Oncology
Development of a proprietary cGMP cord blood (CB) derived $\gamma\delta$ T cell platform for cancer immunotherapy	Alice Cheung	SGH	BioPharma	Oncology
Magnetic adjunct treatment to enhance chemotherapeutic outcome in patients with breast cancer	Alfredo Franco-Obregón	NUHS	MedTech	Oncology
Pre-clinical safety study and manufacturing optimization of laminin-based cultured epithelial autografts (CEA) in Good Manufacturing Practice setting for a first-in-human burns trial	Chua Wen Choong Alvin	SGH	BioPharma	Dermatology
Development of anti-acne smart bomb – a novel targeted treatment	Maurice Adrianus Monique van Steensel	NTU-LKC	BioPharma	Dermatology

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**I2D Projects Awarded in FY2020**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
A novel device to regulate drainage of cerebrospinal fluid from external ventricular drain (EVD)	Ling Ji Min	NNI	MedTech	Neurology
Therapeutic targeting of mutant p53 as an approach to improve cancer therapy	Kanaga Sabapathy	NCCS	BioPharma	Oncology

**I2D Projects Awarded in FY2019**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Wireless Miniaturised GonioPEN for irido-corneal imaging	Shamira Perera	SERI	MedTech	Ophthalmology
Evaluation of safety and efficacy of subconjunctival injection of liposomal tacrolimus for allergic conjunctivitis	Jodhbir Mehta	SERI	BioPharma	Ophthalmology
Precision immunotherapy for gastric, and head and neck cancer targeting the MARK3 splice variant antigen	Narayanan Gopalakrishna Iyer	Duke-NUS	BioPharma	Oncology
Developing solutions for cryopreservation and hypothermic transport of therapeutic modified MSCs for brain tumor treatment	Too Heng-Phon	NUHS	BioPharma	Oncology
Development of highly conductive microneedle array for painless dental anaesthesia	Goh Bee Tin	NDCS	MedTech	Dentistry
Evaluation of an Improved Design of Vaginal Swab for Biological Sample Collection	Suzanna Binte Sulaiman	KKH	MedTech	Obstetrics and Gynaecology

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**I2D Projects Awarded in FY2018**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Computerized adaptive testing (CAT) technologies to improve patient-provider experience and healthcare outcomes for patients	Ecosse Lamoureux	SERI	MedTech	Ophthalmology
A Rapid Point-of-Care Test Kit for Diagnosing Zika Virus Infection	Leo Yee Sin	TTSH	MedTech	Infectious Diseases
Prodrug converting matrix implant for the treatment of resected tumor margin	Chester L. Drum	NUHS	BioPharma	Oncology
Efficacy and Safety of e-Polylysine as a Potent Ophthalmic Antifungal for Clinical Development	R. Lakshminarayanan	SERI	BioPharma	Ophthalmology
Subconjunctival liposomal prednisolone phosphate for post cataract surgery	Tina Wong	SERI	BioPharma	Ophthalmology
Oral Irrigation-Suction Device for Patients with Motor or Cognitive Problems Maintaining Mouth Hygiene	Wong Seng Mun	SGH	MedTech	Dentistry
A smarter, user-friendly, portable and reliable automated (SUPRA) perimetry device	Victor Koh	NUHS	MedTech	Ophthalmology

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**I2D Projects Awarded in FY2017**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Non-leachable Antimicrobial Electrospun Nanofibre Mats for Treatment of Topical Infections	R. Lakshminarayanan	SERI	BioPharma	Plastic, Reconstructive & Aesthetic Surgery
A Novel 3D-Printed Patient-Specific Immediate Dental Implant	Liu Yuchun	NDCS	MedTech	Dentistry
A Handheld Pupillometer for a Fast and Cost-effective Ocular Disease Screening	Dan Milea	SERI	MedTech	Ophthalmology
Development of an ultrasound guided automated spinal landmark identification with real-time neuraxial needle insertion system (ULTRA-SINE study)	Sng Ban Leong	KKH	MedTech	Anaesthesiology
Intelligent spacer for the treatment of childhood asthma	Hugo van Bever	NUHS	MedTech	Respiratory & Critical Care Medicine
Haptoglobin detection using an integrated surface enhanced Raman spectroscopy (SERS) for intraoperative diagnosis of ovarian cancer	Jeffrey Low	NUHS	BioPharma	Oncology
To Investigate Therapeutic Efficacy of A Neutrophil Elastase Inhibitor AZD9668 in Idiopathic Pulmonary Fibrosis	Wong Wai Shiu Fred	NUHS	BioPharma	Cardiology
Developing a compact in-situ real-time blood detection device	Chionh Chang Yin	CGH	MedTech	Haematology
Pre-clinical Development of Expanded Umbilical Cord Blood Grafts using Imidazole Derivatives for Bone Marrow Transplantation	William Ying Khee HWANG	NCCS	BioPharma	Haematology

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**I2D Projects Awarded in FY2016**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Natriuretic peptide analogues with vasodilatory or renal activities for personalized care of heart failure patients	Arthur Mark Richards	NUHS	BioPharma	Cardiology
An Empowering Smart Device App Solution for Childhood Myopia – PLANO	Tien Yin Wong	SERI	MedTech	Oncology
Clinical development and validation of automated EEG data interpretation system	Rahul Rathakrishnan	NUHS	MedTech	Neurology
Preclinical evaluation of novel JAK3-specific inhibitors for Natural Killer/T-cell lymphoma (NKTCL)	Ong Choon Kiat	NCCS	BioPharma	Oncology
The Allevetix™ Reversible Roux-en-Y device: restricts food intake and caloric absorption in the stomach and duodenum in obese and diabetic patients	Asim Shabbir	NUS	MedTech	Oral and Gastrointestinal
Optimization of neutralizing antibodies against IL11 for the treatment of fibrotic diseases	Stuart Cook	NHCS	BioPharma	Cardiology
Development of a Intravitreal Extraction Injection Device: A Novel Diagnostic-Therapeutic Device for the Eye	Marcus Ang	SERI	MedTech	Ophthalmology
Validation of Novel Tear Biomarkers Assessed using Nanoparticle Based Assays for Early Detection of Flares in Patients with Systemic Lupus Erythematosus	Julian Thumboo	SGH	BioPharma	Rheumatology & Immunology
cANGPTL4 as a novel biomarker for rapid diagnosis and prediction of severity of acute pneumonia	Vincent TK Chow	NUHS	BioPharma	Infectious Diseases

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**I2D Projects Awarded in FY2015**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Robotic Sock Technology for Prevention of Deep Vein Thrombosis and Joint Contracture	Lim Jeong Hoon	NUHS	MedTech	Cardiology
Development of 3rd Generation Modular Endoprosthesis for Mandible Reconstruction	Goh Bee Tin	NDCS	MedTech	Dentistry
Development of Mobile Interactive Supervised Therapy (MIST)	James Steven Molton	NUHS	MedTech	Infectious Diseases
Development of a Pulsed Electromagnetic Fields (PEMFs) Device aimed at Rejuvenating or Maintaining Human Muscles	Alfredo Franco-Obregón	NUHS	MedTech	Surgery
A Swellable Drug Loaded Coating for Stents to Target Fibrosis-Induced Ureteral Stricture	Chong Tsung Wen	SGH	BioPharma	Urology
Developing an Automated Bio-Imaging Platform: The Automated Ultrasound Scoring of Joint Inflammatory and Damage Pathologies in Rheumatoid Arthritis (AUSCORA) Study	Tan York Kiat	SGH	MedTech	Rheumatology & Immunology
Lyt:iT – Open Deep Cavity Surgical Lighting	Tan Ngian Chye	NCCS	MedTech	Oncology
NANO-SORB: Thin Biodegradable PLLA Stent Material Using Nanocomposite Fillers	Nicolas Foin	NHCS	MedTech	Cardiology
Optimization of SELENA - an automated, real time detection tool for early detection of Diabetic Retinopathy	Wong Tien Yin	SERI	MedTech	Ophthalmology

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**I2D Projects Awarded in FY2014**

Project Title	Principal Investigator	Host Institution	Domain	Medical Speciality
Towards a novel drug therapy for treatment-resistant depression, adjunct 5-hydroxytryptophan slow-release: determining the human colonic absorption of 5-hydroxytryptophan.	Johnson Fam	NUHS	BioPharma	Mental Health
Detection and quantitation of post-surgical fibrosis with biophotonic imaging technology	Tina T Wong	SERI	MedTech	Ophthalmology
Further Development of a Dysphagia Rehabilitation Training Device (DRT Device)	Goh Huai Zhi	SGH	MedTech	Speech Therapy
An Augmented Four-Limb Cooling Device for the Prevention of Chemotherapy Induced Peripheral Neuropathy (PreChIN)	Einar Wilder-Smith	NUHS	MedTech	Neurology
Automated Continuous Post-surgical Monitoring of Vascularized Grafts using Electrochemical Metabolite Detector	Tan Ngian Chye	NCCS	MedTech	Oncology
Vital-signs-integrated patient-assisted intravenous opioid analgesia for postsurgical pain: a novel modality to improve patient safety by detecting and preventing respiratory depression	Sng Ban Leong	KKH	MedTech	Anaesthesiology
Development of novel ultrathin miniature force sensor to deliver optimal cricoid pressure for airway protection in patients at high risk of gastric aspiration	Hee Hwan Ing	KKH	MedTech	Anaesthesiology
Experimentation, Refinement and Development of Devices for in-office tracheal-esophageal puncture (TEP), Prosthesis Sizing and Insertion.	Constance Teo Ee Hoon	SGH	MedTech	Respiratory & Critical Care Medicine
Development of a Portable Device for Real-Time Risk Stratification of Adverse Cardiac Events	Marcus Ong Eng Hock	SGH	MedTech	Cardiology
Pre-Clinical Efficacy Testing of AB513, a Humanized Monoclonal Antibody that Neutralizes Dengue Virus Serotypes 1-4	Eng Eong Ooi	Duke-NUS	BioPharma	Infectious Diseases
Dual eye drop formulation to suppress T cell-mediated inflammation and replenish lipids in dry eye disease	George K. Chandy	NTU-LKC	BioPharma	Ophthalmology
Proof-of-Concept for an enhanced surrogate marker of endothelial function for macro-cardiovascular diseases risks in patients diagnosed with Diabetes Mellitus	Rinkoo Dalan	TTSH	MedTech	Endocrinology

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