

Congratulations!

WINNER OF RESEARCH GRANT 2022



GERAN UNIVERSITI PUTRA MALAYSIA (GERAN PUTRA)

Kitaran 1 & 2

Faculty of Medicine and Health Sciences, Universiti Putra Malaysia

NO.	NAME	GERAN PUTRA	TITLE
1	AP Dr. Cheah Pike See	GPB	Targeting JAK-STAT Signaling Pathway to Revert Neurogenic-To-Gliogenic Shift and Cognitive Deficits in the Brain of TS1CJE Mouse Model for Down Syndrome.
2	Prof. Dr. Daud Ahmad Bin Israf Ali	GPB	Differentiation of Sheep Induced Pluripotent Stem Cells into Cultured Meat: Proof of Concept.
3	AP Dr. Tham Chau Ling	GP-IPB	Elucidation of the Molecular Sensitization Profile to Blomia Tropicalis Allergens and its Association with Clinical Symptoms using Component Resolved Diagnosis in Different Regions of Malaysia.
4	Dr. Hanifatiyah Binti Ali	GP-IPM	Contraceptive Prescribing Practice Among Primary Care Providers in Malaysia: Its Associated Factors and Barriers.
5	Dr. Loh Wei Chao	GP-IPM	Metagenomics and Histopathology Analysis of Thrombi From Cerebral Arteries of Patients with Acute Ischaemic Stroke: Etiology and the Clinical Outcomes.
6	Dr. Sithra A/P Rengasamy @ Ragasamy	GP-IPM	Identification of SARS-COV-2 and Respiratory Viral Carriage Among Children Attending Day-Care in Selangor, Malaysia.
7	Dr. Aisah Binti Moktar	GP-IPM	The Built Environment Risk Factors Associated with Physical Activity Using GIS Technique Among Adults in Putrajaya.
8	Dr. Thew Hui Zhu	GP-IPM	To Develop online Education Video Platform and Determine its Effectiveness in Enhancing Diabetes Knowledge Among Type 2 Diabetes Patients in Primary Care Clinics.
9	Dr. Wan Syamimee Binti Wan Ghazali	GP-IPM	Asymptomatic Vertebral Fracture in Osteoarthritis and its Associated Factors.
10	Dr. Zawiah Mansor	GP-IPM	Effectiveness of Health Belief Model Intervention on Promoting Ultraviolet Radiation Preventive Practice Towards Skin Cancer Among Paddy Development Agency Farmers in Kuala Selangor.
11	Dr. Irm Zarina Binti Ismail	GP-IPS	Intention to Make Preconception Lifestyle Changes Among Married Men and its Associated Factors.
12	AP Dr. Karmegam A/L Karupiah	GP-IPS	Knowledge, Attitude and Practice Towards COVID-19 Standard Operating Procedure (SOP) Compliance Among School Management in Kuala Lumpur, Putrajaya and Selangor.
13	Dr. Masriana Binti Hassan	GP-IPS	Immunomodulatory Effects of Mitragyna Speciosa Methanolic Extract (MSME) on Cellular Immunity Investigated in a Sheep Red Blood Cells (SRBC)-Induced Delayed Type Hypersensitivity (DTH) in BALB/C Mouse.
14	AP Dr. Mohd Nasir Bin Mohd Desa	GP-IPS	Molecular Characterisation of Streptococcus Pneumoniae Capsule Polysaccharide Gene Towards the Establishment of A More Robust Serotyping Approach.
15	AP Dr. Mohd Nizlan Bin Mohd Nasir	GP-IPS	A Pilot Single-Blind Parallel Randomized Controlled Trial Comparing Mobile App (Upscaler) to Standard Care in the Rehabilitation of ACL Injury After Reconstructive Surgery.
16	AP Dr. Mok Pooi Ling	GP-IPS	Effect of Photobiomodulation (PBM) on Proliferation and Osteochondrogenic Differentiation of Meniscus Stem Cells.
17	AP Dr. Norhafizah Mohtarrudin	GP-IPS	Determining Potential Role of Rankl, Rank and OPG Cytokine Receptor System I Cancer Cell Proliferation and Bone Metastasis in Patients with Prostate Cancer Among Malaysia Population.
18	Dr. Norliza Binti Ahmad	GP-IPS	Relative Risk of Determinants of Adverse Pregnancy Outcomes Among Pregnant Mothers Attending Government Health Clinics, Peninsular Malaysia.
19	Prof. Dr. Rukman Bin Awang Hamat	GP-IPS	Effects of Food Safety Interventional Module on the Level on the Knowledge, Attitude and Practice of Secondary School Students in Tangkak, Johor.

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20	Prof. Dr. Chan Yoke Mun	GP-IPS	Effectiveness of M-Health Education on Pregnancy Outcomes among Pregnant Women in Klang Valley.
21	Prof. Ts. Dr. Cheah Yoke Kqueen	GP-IPS	Isolation and Mitochondrial Function Characterization of Head and Neck cancer Stem Cells.
22	AP Dr. Ezamin bin Abdul Rahim	GP-IPS	Asymmetrical Cortical Vein Sign (ACVS) Predicts Neurological and Radiological Improvement in Large and Distal Vessel Occlusion Post Reperfusion Therapy.
23	Dr. Liew Siew Khei	GP-IPS	The Association of Clinical and Electrophysiological Findings in Carpal Tunnel Syndrome and Its Concurrent Compressive Neuropathy. A Cross Sectional Prospective Study in Tertiary Centres in Malaysia.
24	AP Dr. Intan Nureslyna Binti Samsudin	GP-IPS	Assessing the Performance of Capillary Electrophoresis (CE) and High-Performance Liquid Chromatography (HPLC) Methods for Measurement of HBA1C in Subjects with and Without Haemoglobin Variant.
25	Prof. Dr. Soh Kim Lam	GP-IPS	A Randomised Control Trial of Fall Prevention Education to Reduce Fall Risk Among Older Adults Attended Government Clinics in Sarawak.
26	AP Dr. Subashini A/P Chellappah Thambiah	GP-IPS	A Pilot Study in Malaysia to Evaluate Estimated Low-Density Lipoprotein Cholesterol (LDL) Concentration by Novel Sampson Equation, By Comparing with Fried Ewald Equation and Direct LDL Assay.
27	Dr. Tengku Zetty Maztura Binti Tengku Jamaluddin	GP-IPS	Genomic Determinants of Resistance in Extended Spectrum Beta Lactamases (ESBLs) Klebsiella Pneumoniae Isolates of Hospital Pengajar Universiti Putra Malaysia (HPUPM).
28	AP Dr. Zulfitri 'Azuan Bin Mat Daud	GP-IPS	Unraveling The Predictive Role of Bioelectrical Impedance Analysis-Derived Phase Angel to Detect Sarcopenia in Malaysian Peritoneal Dialysis Patients Dialysis Patients.
29	Prof. Dr. Sharmili Vidyadaran	GP-IPS	Optimising Neuronal Differentiation of N2A Neuroblastoma Cells and Selecting a Common Culture Media for a Microglia-Induced Neurotoxicity (MINT) Model.
30	Dr. Sindhu Nair	GP-IPS	A Study of Parenting Styles, Screen Time, Sleep Time and Physical Activity with Executive Function Among 5-6 Years Old Preschool Children in Hulu Langat, Selangor.
31	AP Dr. Siti Nur'Asyura binti Adznam	GP-IPS	Effectiveness of Protein Supplementation on Frailty Improvement, Muscle Strength and Physical Performance Among Pre-Frail Elderly People a Randomized Clinical Study.
32	Dr. Siti Yazmin Zahari Sham	GP-IPS	Determination of Expression Pattern of MIR-101-3P AND mir-145-5p IN Renal Cells I Response to High Glucose.
33	AP Dr. Norshariza Binti Nordin	GP-IPS	Synergistic Effect of Centella Asiatica (CA) Ethanolic Extracts in Comparison with Synthetic Triterpenoid Compounds on Trans Differentiation of Full-Term Amniotic Fluid Stem Cells (AFSCS) Into Neural Stem Cells (NSCS).

Hospital Pengajar Universiti Putra Malaysia (HPUPM)

NO.	NAME	GERAN PUTRA	TITLE
1	Ms. Nurul Iman Hafizah Adanan	GP-IPM	Development and Evaluation of an Evidence-based Smartphone Mobile App with the Integration of Metaverse to Promote Healthy Behaviours during the COVID-19 Endemic.

Geran Putra 2022

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Geran Inisiatif Putra Muda (GP-IPM)

MS. NURUL IMAN HAFIZAH ADANAN

Principal Investigator

RM35,000



DEVELOPMENT AND EVALUATION OF AN EVIDENCE-BASED SMARTPHONE MOBILE APP WITH THE INTEGRATION OF METAVERSE TO PROMOTE HEALTHY BEHAVIOURS DURING THE COVID-19 ENDEMIC

Mentor:

Assoc. Prof. Dr. Chew Boon How

Team members:

1. Dr. Aidalina Mahmud
2. Assoc. Prof. Dr. Chee Hui Yee
3. Prof. Dr. Rahmita Wirza
4. Dr. Yew Sheng Qian
5. Dr. Nur Aazifah Ilham
6. Salwana Ahmad
7. Nurfaizah Saibul

- **Aim:** To develop an evidence-based smartphone app with the metaverse integration to strengthen immunity through healthy lifestyle practices in terms of weight and nutrition management, physical activity, and mental health during the COVID-19 endemic for the Malaysian general population.

- **Why is it important?**

- To the best of our knowledge, this will be the first study in Malaysia to develop an evidence-based, scientifically proven, and Malaysian population-based smartphone app with a metaverse element to nurture health-related knowledge in combating NCDs and enhance the public's autonomy skills in monitoring their lifestyle habits and health status.

- **How will it be done?**

- **Phase 1: Design and development**

- **Assessing needs:** A comprehensive literature review of effective lifestyle behaviours will be conducted to scope the appropriate and proven healthy behaviours that could potentially reduce the COVID-19 infection and post-infection complications. If there is no good local data available, an exploratory focus group discussion among potential end-users will be conducted.
- **Content consensus:** A team consisting of an expert advisory group will review the potential content of the app based on the findings of the systematic review or focus group discussion.
- **User interface:** To ensure the increased likelihood of use and effectiveness of the app, the consensus meeting will also discuss the design of the app. The content and design of the app will be available in two language versions: (i) Malay version and (ii) English version.

- **Phase II: Testing early iterations**

- The final version of the app will be developed for almost all mobile operating system (OS) such as Android, Apple (iOS), Windows Phone and HTML 5. A link to download the app will be provided either through Google Play Store for android users or Apple Store for iPhone users. The app will be tested iteratively for face validity and quality assurance by the end users (the research team members, collaborators and colleagues, and volunteers). During this series of testing, alpha and beta testing will be conducted to assess the functionality of the mobile apps and ensure it meets the objectives of the project.
- **Usability assessment**
The usability of the developed app will be evaluated using mHealth App Usability Questionnaire (MAUQ) (Zhou et al., 2019).
- **Quality assessment**
The quality of the mobile app will be assessed using Mobile Application Rating Scale (Stoyanov et al., 2015).

- **Expected output:**

- ✓ The developed smartphone app is expected to enable people to monitor their weight, fitness level, nutrition and eating behaviour, mental health status as well as storing other health data such as blood pressure, blood chemical profiles and etc.
- ✓ Journal publications: 2 (At least 1 in Q1 – Q2 ISI-indexed journals)