



SINGHEALTH DUKE-NUS ACADEMIC MEDICINE & NATIONAL HEALTH INNOVATION CENTRE JOINT MEDTECH GRANT CALL FY2024 (For FY2024 Research Projects)

APPLICATION GUIDELINES

Closing date: 25 September 2023 (Monday), 5pm

1. Background

Medical technology development is a research growth area for SingHealth with the aim of bringing novel healthcare technology solutions to the patients' bedside. Its advancement is a mission spearheaded by the SingHealth Medical Technology Office (MTO). One of MTO's key roles is to link researchers and their validated clinical problem with technological solutions – with an end goal of improving patient care through clinically relevant technology.

The SingHealth Duke-NUS Academic Medicine (AM) & National Health Innovation Centre Singapore (NHIC) Joint MedTech Grant Call FY2024 is jointly supported by SingHealth Duke-NUS AM and NHIC – to fund feasibility studies and deserving pilot projects *prior* to embarking on follow-on grant applications, such as NHIC's developmental and translational grants.

2. Aim

This grant is intended to provide **seed funding** for investigators to explore novel research ideas, support exploratory efforts for early-stage projects that involve an unmet clinical need and show potential for further development with the next stage of Proof of Concept (POC) funding.

3. Funding Quantum and Deliverables

- I. The award value is capped at **S\$100,000/-** per successful application, to be utilised over a period of **1 year**.
- II. The end deliverable should be a physical clinical device, drug or diagnostic solution, potentially applicable in SingHealth Duke-NUS Academic Medicine Centre (AMC) and optimally, across other healthcare institutions; and/or show potential for patent protection. Digital health solutions addressing clinical needs will also be considered if there is a potential for novelty and innovation, as opposed to simple automation.

- III. Projects should aim towards securing follow-on funding [such as NHIC Innovation to Develop (I2D) Grant, SMART Innovation 2.0 Grant and NRF Central Gap fund] or take other concrete steps to develop the technology towards commercialization, at the end of the project.

4. Eligibility

- I. Only investigators/researchers **primarily employed** in SingHealth and her member institutions are encouraged to apply provided the following criteria are fulfilled:
- a) Principal Investigators (PIs) with previous MedTech/Biomedical research funding (irrespective of funding source) of <S\$1 million in total between the period 1 September 2021 to 31 August 2023 are eligible to apply.
 - b) PIs (other than Allied Health professionals and Nurses) must not have held more than 1 SHF-Foundation/AM grant¹ (i.e. a maximum of 2 SHF-Foundation/AM grants may be awarded to any PI who is not an Allied Health professional or Nurse); Allied Health professionals and Nurses must not have held more than 2 SHF-Foundation/AM grants (i.e. a maximum of 3 SHF-Foundation/AM grants may be awarded if the PI is an Allied Health professional or Nurse).
 - c) Association/Affiliation with an Academic Clinical Programme (ACP):
 - i. The PI must be under an ACP or contributing to the growth and development of research in/under an ACP through active collaboration. Justifications must be given to support these research contributions and activities.
 - Applicants will need to complete a self-declaration on the ACP to which their research has contributed and obtain acknowledgement from the respective ACP Vice Chair (Research).
 - ii. If the applicant is unable to fulfil the above condition (i), the applicant should have his/her proposal signed-off by the relevant ACP Vice Chair (Research) and have it endorsed by the ACP's Academic Chair while keeping the respective ACP Administrators informed. The signing-off in support and as endorsement of the proposal signifies that the applicant is associated to the ACP.
 - d) The proposed research project must be conducted within SingHealth Duke-NUS academic health system and the PI must be primarily employed by SingHealth or her member institutions (e.g. MOHH employed medical officers and residents are not eligible). PI must have an official employment (permanent/contract) throughout the effective grant period.
 - e) For proposals involving patients, the PI or Co-I should be Singapore Medical Council (SMC) or Singapore Dental Council (SDC) registered, as appropriate; or be able to demonstrate ability to access patients through SMC or SDC registered collaborators.

¹ If applicant is unsure whether they fall under this category, please contact your Institutions' Research Office or SingHealth Office of Research (OoR).

For example: If PI was awarded 1 SHF-Foundation/AM grant, he/she can apply for the SingHealth Duke-NUS AM & NHIC Joint MedTech Grant Call FY2024. For Allied Health professionals and Nurses who were awarded with 2 SHF-Foundation/AM grants, they can apply for the SingHealth Duke-NUS AM & NHIC Joint MedTech Grant Call FY2024.

- f) PIs must not be recipients of NMRC Talent Programme [Singapore Translational Research Investigator Award (STaR), Clinician Scientist Award (CSA), Health Promotion, Preventive/Population Health and Health Services Research (HPHSR) Clinician Scientist Award (HCSA), Clinician Innovator Award (CIA) & Transition Award (TA)]; or be current recipients of SingHealth Duke-NUS AM's Nurturing Clinician Researcher Scheme (NCRS) or Khoo Mentored Research Award (KMRA); or have been hired under SingHealth Research Strategic Hire or Research Talent schemes, at the point of application and upon award.
- g) The project's aims and objectives, and/or the same protocol and/or scope of work must not be funded by other funding agencies.
- h) No outstanding reports from previous SHF-Foundation/AM grants.
- II. If eligible, successful (awarded) investigators must apply for follow-on funding [such as NHIC Innovation to Develop (I2D) Grant, SMART Innovation 2.0 Grant and NRF Central Gap fund] or take other concrete steps to develop the technology towards commercialization (details of which must be provided to the grant implementing agencies), at the end of the project.
- III. All awarded investigators will need to agree to have a project monitor for their project, assigned by MTO and mutually agreed on by the PI.
- IV. Applications that do not fulfil the eligibility criteria will be automatically disqualified from review.
- 5. Application Procedures – Compulsory information**
- I. All applications must be made using the prescribed form. Failure to comply with all the requirements will result in the grant application being disqualified from review.
- II. Each eligible applicant can only submit **one** application per SingHealth Duke-NUS AM Research Grant Call as the PI (i.e. a PI can only apply for either '*SingHealth Duke-NUS AM & NHIC Joint MedTech Grant Call FY2024*' or '*SingHealth Duke-NUS AM Research Grant Initiative FY2024*').
- III. Applicants and Team members must declare concurrent submission(s) (or with similar aims) to other funding agencies and provide the abstract(s).
- IV. The total number of Co-Investigator(s) and Collaborator(s) is limited to a maximum of five (5) and they should be directly involved in the project.
- V. Association/Affiliation with an Academic Clinical Programme (ACP)
- a) For PIs who are under an ACP or already contributing to the growth and development of research in/under an ACP through active collaboration, applications must be acknowledged by ACP Vice Chair (Research).
- b) If the applicant is unable to fulfil the above condition (a), the applicant should have his/her proposal signed-off by the relevant ACP Vice Chair (Research) and have it endorsed by the ACP's Academic Chair while keeping the respective ACP Administrators

informed. The signing-off in support and as endorsement of the proposal signifies that the applicant is associated to the ACP.

- VI. Applications that focus on setting up a data/tissue repository or setting up a new laboratory with new equipment will not be supported.
- VII. Application must be endorsed by the applicant's Head of Department (HOD) and the Research Director of the pertinent institution. If the HOD or Research Director is involved in the project (as PI, Co-I or Collaborator), the HOD's or Research Director's supervisor is required to endorse the application instead.
- VIII. The completed soft copies of the application form and all accompanying documents must be submitted through the Host Institution's Research Office to SingHealth OoR
 - 1. (i) A single Microsoft word document without signatures, and (ii) a single PDF document with signature.
 - 2. Please name the documents in the following format:
Joint MedTech_Host Institution_PI's Name
- IX. Incomplete or late applications will be automatically disqualified from review.

6. Budgeting

- I. The SingHealth Duke-NUS AM Research Grant Funding Guidelines is attached as Annex 1 in the application form.
- II. For projects that will use the SingHealth Core Platforms, Strategic Programmes & Supporting Centres, please contact the relevant staff for the appropriate costings:
Weblink: <http://infopedia/SingHealth/Departments/Group%20Research/Pages/AMRI.aspx>
 - a) Advanced Molecular Pathology Laboratory (AMPL) @ SingHealth
General Enquiries: ampl@singhealth.com.sg
 - b) SingHealth Advanced Bio-imaging
General Enquiries: bioimaging@singhealth.com.sg
 - c) SingHealth Experimental Medicine Centre (SEMC)
General Enquiries: shs.semc@singhealth.com.sg
 - d) SingHealth Flow Cytometry
General Enquiries: flow@singhealth.com.sg
 - e) SingHealth Health Services Research Centre (HSRC)
General Enquiries: hsr@singhealth.com.sg
 - f) SingHealth Investigational Medicine Unit (IMU)
General Enquiries: imu@singhealth.com.sg
 - g) SingHealth Tissue Repository (STR)
General Enquiries: tissue.repository@singhealth.com.sg

VI. Applicants must contact their Host Institution's Research Office or Research Finance for accurate budgeting of manpower expenses and other services.

7. Project Support and Technical Advisory from Division of Innovation and Transformation

- I. For related project support, technical support or advisory, please contact Medical Technology Office (MTO) at mtto@singhealth.com.sg.
- II. The Impact Assessment Unit (IAU), under the Academic Medicine Innovation Institute (AMII), provides guidance and expertise on the evaluation of the impact of healthcare innovation. The unit conducts various health economics analyses including cost-utility and cost-effectiveness analyses to generate evidence on the value of the innovation. For general enquiries, please email to Elaine.tai@singhealth.com.sg.

8. Selection Process/ Criteria

- I. Applications will be triaged for eligibility by the SingHealth OoR.
- II. Each submission will be reviewed by four (4) experts from a platform-specific (MedTech) Review Panel, drawn from both within and outside SingHealth Duke-NUS AMC. Reviewers (1 clinical, 1 technical, 1 commercial and 1 NHIC representative) will be appointed by SingHealth MTO and NHIC.
- III. All proposals will be evaluated based on the following criteria:
 - a) Clarity of key aspects of the unmet clinical need.
 - b) The significance and clinical impact of the unmet need.
 - c) The novelty and competitiveness of the solution (if one is proposed) or clarity of the features required of a successful solution (if none is proposed yet).
 - d) The potential for securing follow-on funding or commercialization.
 - e) Proposals without a clear hypothesis or primarily for setting up databases and registries will not be funded.
 - f) The end deliverable should be a physical clinical device, software, drug or diagnostic solution, potentially applicable within SingHealth Duke-NUS AMC and optimally, across other healthcare institutions; and/or show potential for patent protection.
- IV. SingHealth OoR reserves the right not to award the grants should it be decided that the applicants do not meet the eligibility/ selection criteria or the intent of the SingHealth Duke-NUS AM & NHIC Joint MedTech Grant Call.

9. Disqualifications

Proposals may be disqualified from review or not approved for funding under the following circumstances:

- I. PI leaves the Institution prior to the approval of the grant.
- II. PI will be on leave for such an extended period of time that the completion of the project by the specified time is affected. Example: Health Manpower Development Programme (HMDP) or long unpaid leave
- III. Exceptions will be considered on a case-by-case basis with valid explanations written by the Investigator.

10. Ethics Approval

- I. Successful proposals must submit supporting documents of ethics approval granted by the relevant Ethics Committee for studies involving human subjects, human tissues/cells and/ or animals within 5 months from grant approval letter through the Host Institution's Research Office, prior to the release of funds.
- II. **PI must ensure that PI's name and Project title used to apply for the research grant and relevant ethics approval (upon grant approval) are the same.**
- III. Exceptions will be considered on a case-by-case basis with valid explanations written by the Investigator and endorsed by the Host Institution. Subsequent ethics renewal must be submitted to the SingHealth OoR through Host Institution's Research Office.

11. Extension of Grants

Awardees will be allowed a maximum of 6 additional months of grant extension, upon request. Extension requests must be made at least 3 months before the project end date.

12. Expenditure of Award

- I. The funds can be used for any category of research expenditure (i.e. Manpower, Capital Equipment, Other Operating Expenses and Overseas Travel). Allowable costs will follow the guidelines outlined in the SingHealth Duke-NUS AM Research Grant Funding Guidelines (Annex 1 of the prescribed application form).
- II. Every attempt should be made to adhere to the approved budget plan as stated in the Letter of Award. Variations from different categories are permitted only with written approval from the SingHealth OoR.
- III. All variation requests must have inputs from MTO appointed Project Managers before submission and approval from SingHealth OoR.

13. Reporting

- I. The Award Holder must submit reports on the progress of the research funded by the Joint Grant Call using the prescribed reporting template, in accordance to the schedule below. PI

must also submit a Final Report within two months of the grant expiry date. Reports are to be cleared by MTO appointed Project Managers and then submitted to SingHealth OoR before final submission to SingHealth Duke-NUS AM and NHIC.

- II. Each project year is defined as 12 calendar months from the project start date as stipulated in the Letter of Award. Projects will be reviewed according to the following schedule:
 - a) At 6 months post-award: the Award Holder must submit a progress report and have a face-to-face meeting with a MTO and NHIC representative.
 - b) On completion of project: the Award Holder must submit a final report and give a final presentation to a joint NHIC-MTO/ OoR panel.
 - c) If extension is granted, the Award Holder must submit a second progress report at 12 months post-award.
- III. Requests for changes in project (*e.g. Changes in protocol and/ or Team Members*) must have inputs from MTO appointed Project Managers and approved by SingHealth OoR.

14. Enquiries

Please contact your Host Institution's Research Office OR

SingHealth Office of Research

1. Ms Tan Yi Mei at tan.yi.mei@singhealth.com.sg
2. Ms Ang Shu Wei at ang.shu.wei@singhealth.com.sg
3. Dr See Jie Yang at see.jie.yang@singhealth.com.sg