NMRC National Medical Research Council Singapore

OPEN FUND – LARGE COLLABORATIVE GRANT (OF-LCG)

MAY 2024 GRANT CALL

APPLICATION GUIDE FOR LETTER OF INTENT (LOI)

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I. OPEN FUND – LARGE COLLABORATIVE GRANT

(A) AIM & FUNDING PRINCIPLES

Aim

The Open Fund – Large Collaborative Grant (OF-LCG) aims to bring together the best teams from public institutions to advance human health and wellness, as well as create economic value for Singapore and Singaporeans, through the pursuit of excellence in research and its applications. The purpose of the OF-LCG scheme is to support patient-centric translational[1] research, underpinned by basic[2] and/or applied research[3]. The scheme will not support pure basic science, pure clinical or pure applied research.

Key Elements

- Interdisciplinary collaboration across institutions is preferred and encouraged so as to integrate, coordinate and leverage on the full spectrum of research capabilities in Singapore, from basic science to clinical research.
- LCG programmes should aim to make significant contributions to the advancement of knowledge in therapeutic areas and help establish Singapore as a global leader in these areas.
- They should facilitate the discovery and application of basic science ideas relevant to the advancement of health, as well as the translation of clinical findings into policy and practice. They should also provide opportunities for international partnerships and/or industry collaborations.
- Pathway(s) to impact should be clearly articulated.

Research Themes

Application to the OF-LCG scheme will be through open grant calls. The OF-LCG is open to proposals of the highest quality in all areas, typically involving multi-disciplinary teams. To better realise the goals of HHP domain in Singapore, the following seven areas have been identified as national priorities for research.

a. Cancers and neoplasms
b. Cardiovascular
c. Eye
d. Infection
e. Mental health
f. Metabolic and endocrine
g. Neurological

For each grant call, specific therapeutic areas will be selected as the emphasised therapeutic areas. The HBMS community is encouraged to address these areas. At the same time, proposals in other areas will also be considered.

Funding Quantum and Duration

There are two funding tiers for application:

- Tier 1: Up to $10M inclusive of indirect cost* up to 5 years; and
- Tier 2: Up to $25M inclusive of indirect cost* up to 5 years.

The following categorisation of research activity is based on UK Health Research Classification System (HRCS):
[1] Translational Research: Prevention, Detection and Diagnosis, Treatment Development and Treatment Evaluation
[2] Basic Research: Underpinning and Aetiology
[3] Applied Research: Disease Management and Health Services

**Indirect cost is provided at a fixed percentage of 30% of the project's qualifying direct cost.*

Grant Call Frequency

Once a year, starting from June 2021.

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May 2024 OF-LCG Grant Call

For the May 2024 OF-LCG grant call, two therapeutic areas are selected as the emphasised therapeutic areas:

1. **Mental health**
2. **Neurological**

Besides the 2 therapeutic areas, proposals in other areas will also be considered.

(B) Definitions and Eligibility Criteria

Definitions

Overview: The research programme should comprise no more than 5 research themes, each led by one or more Theme Principal Investigators (PIs). All the Theme PIs should form the Leadership Team, and one of the Theme PIs should be nominated as the Corresponding PI.

Leadership Team: Comprises all Theme PIs. The leadership team shares the responsibility in making the OF-LCG programme a success and is essential for implementing programme strategies and achieving desired outcomes.

Corresponding PI: The Theme PI who will coordinate the OF-LCG programme, serves as the main point of contact between NMRC and the OF-LCG Leadership Team, and is accountable to NMRC for the proper conduct of the whole programme. He/ She will work closely with the Theme PIs to resolve any issues which arise during the course of the programme, including the usage of funding, any variations to the scope of the programme etc. Limited to only 1 Corresponding PI per leadership team.
Please note that in IGMS, the Corresponding PI will take on the role of "Lead PI".

Theme PI: Theme PIs have the responsibility to direct each specific research theme being supported by the grant, and are accountable for the proper conduct of the specific research theme. The main Theme PIs (one for each Theme) are responsible for raising budget variation requests, collating and submitting fund requisitions for direct and/or indirect costs, on behalf of the theme to NMRC for the disbursement of funds. There is no limit on the no. of Theme PIs per theme but a cap of 5 themes and one main Theme PI per theme apply. An individual can be a Theme PI for multiple themes.
Please note that in IGMS, the main Theme PIs will take on the role of "Team PI" while the other Theme PIs will take on the role of "Co-Team PI".

Eligibility Criteria

- **Only one Corresponding Principal Investigator (PI) is allowed per application, and there is no cap placed on the number of Theme PIs per theme. However, a cap of 5 themes applies.**

- **The Corresponding PI and Theme PIs form the Leadership Team and are required to fulfil the following criteria at the point of application:**

  i. Holds a primary appointment in a local publicly funded institution and salaried by the institution.
  ii. Has PhD or MD/MBBS/BDS qualifications (exceptions would be made on a case-by-case basis).
  iii. Is an independent investigator (with PI status in institution) with a demonstrated track record of research, as evidenced by the award of nationally competitive funding (international funding to be considered on a case by case basis), substantial publication record in the past 3 years.
  iv. Has a laboratory or clinical research program that carries out research in Singapore.
  v. Holds a minimum of 9 months employment (per calendar year) with local Singapore institution(s). Upon award, the PI must agree to fulfil at least 6 months of residency in Singapore for each calendar year over the duration of the grant award.
  vi. Has no outstanding report from previous BMRC, NMRC grants, and other national grants.
  vii. For proposals involving patients, the PI should be SMC registered; or should be able to demonstrate ability to access patients through SMC registered Co-Is or collaborators.

(C) Review Process

Overview

The OF-LCG comprises a 2-stage review process. In the first stage, interested applicants are required to submit a letter of Intent (LOI). The LOIs solicited will be put through an internal review process with the OF-LCG Review Panel (OF-LCG RP) that is made up of local and international clinicians and basic scientists, as well as industry experts appointed by NMRC. Based upon a review and selection of the most promising projects, a certain number of applicants will be invited to submit full proposals.

In the second stage, the full proposals will be evaluated by international domain experts followed by the OF-LCG RP. Shortlisted applicants will be invited to submit a rebuttal to address the issues raised by the international reviewers, and will subsequently be interviewed by the OF-LCG RP. The OF-LCG RP will do a collective review/ranking of the proposals and make funding recommendations for endorsement. The number of awards given out for the grant call will depend on the quality of the proposals and the amount of funding available.

Evaluation Criteria

Selection of successful proposals would be based on the following evaluation criteria:

i. High-quality scientific research focusing on patient-centric translational research, supplemented with basic and/or applied research (including Health Services Research). Proposed research must be well-differentiated and highly competitive. It should demonstrate a high potential to be world class.
ii. Proposed research topic should address issues of national importance. These should typically be challenges that no single institution or discipline can solve and require collaborative and interdisciplinary approaches. Provided they are scientifically meritorious, proposals which address the therapeutic areas would be given priority consideration.
iii. Proposed research team should have established track record and research productivity. Proposed governance to manage the programme should be feasible and sustainable.
iv. Proposed programme should contribute to capacity development of human capital and research infrastructure.
v. Demonstrate the potential to improve health outcomes and capture economic value* with a clear indication of pathway(s) to impact.

Additional Criterion for Application Seeking Renewal of Funding

vi. For renewal applications, the proposal should demonstrate the good progress made in achieving health and economic outcomes, and demonstrate the potential to leverage these for implementation to achieve greater impact or value capture.

Translation Pathways to Healthcare and Economic Outcomes are required in the application. For economic value, an industry engagement plan will also be required in the application, and applicants are encouraged to obtain letters of support from the industry.

(D) Reporting Requirements

Reporting requirements are detailed in the NMRC's Terms and Conditions and Guidelines for the Management of MOH/NMRC (Grantor) Funding Programmes (available on the NMRC's website).

In addition, research programmes funded under the OF-LCG will be required to undergo annual review of their progress by an NMRC-appointed Scientific Advisory Board (SAB) and a mid-term review by an

appointed Review Panel. More details will be shared with the grantees at the start of their research programme.

(E) Terms & Conditions

If awarded, all applicants would have read, understood and will abide to the **NMRC's Terms and Conditions and Guidelines for the Management of MOH/NMRC (Grantor) Funding Programmes** (available on the NMRC's website) upon their acceptance of the grant.

II. GENERAL INSTRUCTIONS

- Please complete all required sections in the IGMS application for the LOI application in **Table 1** below.

- Please provide Section 0 – 7 in **MS Word format** (Section 5 – Annex F Industry Support Letters and Section 6 Declaration can be in PDF or Word format).

- Use **Arial font size 10** for all text and attachments. Please follow the instructions for each section closely.

- **The Corresponding PI and Theme PIs must fulfill the eligibility criteria specified in Section I of this application guide.** Please note that in IGMS, the Corresponding PI and the main Theme PIs will take on the role of "Lead PI" and "Team PIs" respectively; the rest of the Theme PIs will take on the role of "Co-Team PIs".

- Each application is limited to only **1 Corresponding PI**. No cap is placed on the number of Theme PIs allowable per theme, but a cap of 5 themes per application and one main Theme PI per theme apply. **A Corresponding PI must be a Theme PI**. An individual can be a Theme PI for more than 1 theme.

- **Only the Corresponding PI and Theme PIs are required to submit their CVs for the LOI application, each limited to 3 pages.** Please indicate "NA" if the required information is not applicable and please note that NMRC will not be responsible for any missing information not provided in the CV.

- **Co-Is[4] are required to hold at least an adjunct position at a local public institution. Researchers from overseas institutions or private companies can only participate as Collaborators[5].** The terms of collaboration with overseas research institutions and private companies must conform to NMRC's existing policies. Co-Is and Collaborators are not required to be added to the IGMS Research Team section for the LOI application.

- **Please note that resubmission attempts are capped at up to two times. Funding is not guaranteed for resubmitted proposals.**
  Note: Resubmission refers to proposal resubmitted based on the OF-LCG Review Panel/ External Reviewers' assessments. It is not a re-written proposal from a new perspective. If more than 50% of the proposal is to be revised, it should be submitted as a new application instead of a resubmission.

- Plagiarism (without permission from author or reference made to source) will be referred to Host Institution for investigation and may be subjected to disciplinary actions.

Application Submission

- All applications must be submitted by the Corresponding PI and endorsed by the Corresponding PI's Host Institution through IGMS by **28 June 2024 (Fri), 5pm**.

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[4] **Co-I:** An individual involved in the scientific development and execution of the project. A co-Investigator typically devotes a higher percentage of effort to the project compared to a collaborator and is considered a key research personnel of the research team.
[5] **Collaborator:** An individual involved in the scientific development and execution of project. A collaborator typically devotes only a specific percentage of effort to the project.

- Internal Host Institution submission deadline may apply, please check with your Research Office for more information.

- The following will be rejected upon submission:

    - Incomplete applications e.g. missing documents such as resubmission/renewal materials required, missing signatures, sections left blank, missing CVs, etc.
    - Outdated/Wrong application templates.
    - Proposal or CV templates that exceed the stipulated page limits.
    - Missing or incomplete declarations (e.g., past funding received, concurrent grant applications)

- No late submission or revision to the submitted application will be entertained after the closing date.

- For enquiries, please contact the NMRC OF-LCG secretariat at kahyim.peh@mohh.com.sg.

III. TABLE 1: REQUIRED SECTIONS OF THE LOI APPLICATION

The application will comprise a "Summary Details" section and 7 additional sections (i.e. Sections 1-7), as shown in Table 1.

<table>
<tr><th>SECTION</th><th>DESCRIPTION</th><th>LOCATION OF TEMPLATE IN IGMS</th><th>LOCATION TO UPLOAD COMPLETED TEMPLATE IN IGMS
(Snapshots are provided in Pg 11-12)</th></tr>
<tr><td>-</td><td>Summary Details</td><td rowspan="2">"Research Proposal" tab of "Research Details" section</td><td rowspan="2">"Research Proposal" tab of "Research Details" section
• To upload each section as a separate file</td></tr>
<tr><td>1</td><td>Research Proposal (page limit: 10 for new application; 11 for renewal application)</td></tr>
<tr><td>2</td><td>Curriculum Vitae of the Corresponding and Theme PIs (page limit: 3 per CV)</td><td>"Research Team" tab of "Research Team, Collaborators, Referees" section</td><td>"Research Team" tab of "Research Team, Collaborators, Referees" section
• To upload CVs individually into the respective PIs' profiles</td></tr>
<tr><td>3</td><td>Peer reviewed funding received in the past 5 years as PI (CY2018 – present; from local and overseas funding agencies)

Note: Please attach the scientific abstracts of all grants listed as <u>Annex E</u>.</td><td rowspan="3">"Research Proposal" tab of "Research Details" section

(same location as templates for "Summary Details" and "Research Proposal")</td><td rowspan="3">"Attachments" tab of "Other Attachments" section
• To upload each section as a separate file
• To upload each Annex as a separate file</td></tr>
<tr><td>4</td><td>Top 10 publications of Corresponding PI and Theme PIs in the last 10 years (CY2013 – present)</td></tr>
<tr><td>5</td><td>Annexes

Please note that provision of any supplemental information/data to the proposal, other than the NMRC-specified Annexes, is not allowed.

<table><tr><th>Annex</th><th>Description</th></tr></table></td></tr>
</table>

	Annex A (max. 5 pages)	**Additional documents for RENEWAL applications:** i) Summary of achievements of the last funding and if they met the aims and objectives of the previous research programme. Explain unmet goals. ii) Brief description of plans laid out for the new tranche of funding and how it is a progression from the last funding in terms of health and/or economic impact. iii) Sustainability plan to ensure the continuation of research and translation beyond the OF-LCG funding period (if awarded), e.g. gap/innovation funding to further translate assets developed through the OF-LCG project, scale-up toward system-level deployment, and/or private sector funding for commercialisation.		
	Annex B (max. 3 pages for (i))	**Additional documents for RESUBMISSION applications:** i) Response to past reviewers'/panel's comments (if any) ii) Original past review reports (inserted as images) (if any)		
	Annex C	*Not applicable for the LOI stage*		
	Annex D	*Not applicable for the LOI stage*		
	Annex E	**Scientific abstracts of all grants listed in Section 3**; Specifically for NMRC funded projects, please indicate the project number and provide the latest research outcomes (qualitative and/or quantitative in the form of Key Performance Indicators).		
	Annex F	**Industry support letters (if any)**		
6	**Declaration** by Leadership Team and Host Institution Endorsement.			
7	**Data Sharing Plan**			

IGMS Template Locations and Snapshots

Templates to Download

- For the "Summary Details" Section, Section 1, and Sections 3-7, the templates can be downloaded from the "***Research Proposal***" tab of the "***Research Details***" section.
- For Section 2 (Curriculum vitae of the Corresponding and Theme PIs) , the template can be downloaded from the "***Research Team***" tab of the ***"Research Team, Collaborators, Referees"*** section.

Documents to Upload

- Completed Summary Details template should be uploaded to the "***Research Proposal***" tab of the "***Research Details***" section.
- Completed Research Proposal template (Section 1) should be uploaded to the "***Research Proposal***" tab of the "***Research Details***" section.

Snapshot of the **"Research Proposal"** tab of the "**Research Details**" section

- Completed individual CV template for each PI (Section 2) should be uploaded to the "***Research Team***" tab of the ***"Research Team, Collaborators, Referees"*** section.

Snapshot of the "**Research Team**" tab of the "**Research Team, Collaborators, Referees**" section

- The remaining completed templates for Sections 3-7 should be uploaded to the "***Other Attachments***" section.

Snapshot of the "**Attachments**" tab of the "**Other Attachments**" section