



NHG-LKCMedicine Clinician-Scientist Preparatory Programme (CSPP) INFORMATION SHEET

1. INTRODUCTION

- 1.1. The NHG-LKCMedicine Clinician-Scientist Preparatory Programme (CSPP) is a joint programme between NHG and Lee Kong Chian School of Medicine (LKCMedicine) that aims to provide clinicians with **an exposure to research in the early phase of their careers** through **research training** and **project experience**.
- 1.2. Awardees are required to complete the programme within two years.
- 1.3. For residents, the programme should be completed within the duration of their residency. Exceptions apply for those who are employed by NHG institutions post-residency exit. They are recommended to discuss with their Residency Programme Directors on the feasibility and recommended year to embark on CSPP, as well as how he/ she plans to complete the programme within residency.
- 1.4. The programme comprises of three components:
 - a) An award quantum of up to S\$11,000;
 - b) A comprehensive basic research training package; and
 - c) Mentorship.
- 1.5. The programme is overseen by the CSPP Faculty which comprises of key clinician-researchers from NHG institutions, NHG's academic partner LKCMedicine, as well as subject matter experts from other organisations.

2. ELIGIBILITY

2.1. Applicants should be:

- a) **Doctors** (i.e. clinically qualified with MD/MBBS/BDS) enrolled in the NHG Residency Programme; or with primary appointments as Associate Consultants at NHG institutions;
OR
- a) **Health science / healthcare professionals** with non-medical degrees, such as nurses, pharmacists and other allied health professions listed on [MOH's website](#) in clinical practice, with primary appointments at NHG institutions and at least 3 years of clinical or relevant experience. Others may contact the Secretariat for discussion on suitability of the programme. Applicants should have at least a Bachelors (Hons)/Masters with an Upper Second, preferably First class honours degree in a relevant field. Experience as first or co-author of research publications is preferred but not required.

2.2. All applicants should also fulfil the following criteria:

- a) Is interested in research but have little or no research experience; and
- b) Able to commit time to complete the required CSPP research training.

2.3. Applicants are recommended to commit an estimated 0.1FTE to complete their research project within the award period, with the approval from their Reporting Officer.

2.4. Interested clinicians are strongly encouraged to contact the CSPP Secretariat for discussion on suitability of the Programme prior to submitting a Letter of Intent (LOI).

2.5. Applicants are required to seek endorsements for their applications from the following personnel:

- a) Reporting Officer (RO);
- b) Head of Department (HOD);
- c) Director/Chief/Head of Family Group (applicable for health science / healthcare professionals only);
- d) Director of Research (DOR); and
- e) Residency Programme Director (applicable for Residents only).

3. FUNDING SUPPORT

3.1. Each awardee will receive an award quantum of up to S\$11,000¹.

3.2. Within this award quantum, S\$2,000 is ring-fenced for the fees of required courses under the CSPP Training Curriculum.

¹ Awards for medical doctors would be equally co-funded by NHG and LKCMedicine, while awards for other healthcare professionals would be funded by NHG only.

- 3.3. The remaining S\$9,000 may be utilised as project funding (in accordance to the CSPP Funding Guidelines) and as further top-up for required CSPP training course fees, if the awardee is unable to secure funding support for training from his/her department/institution.

4. TRAINING

- 4.1. Awardees are required to fulfil the training requirements based on the CSPP Curriculum (refer to Annex 2). The required modules (1 – 3 days each) must be completed within the tenure of the award.
- 4.2. Awardees are required to undergo the “Do-It-Right Programme”, which comprises of 2 components:
- a) A Study Start-Up Training and Consultancy session – conducted within 3 months of the commencement date of the Programme by the NHG Research Education (RE) Unit; and
 - b) An Educational Study Review – conducted during the term of the programme by the NHG Research Quality Management (RQM) Unit.
- 4.3. Awardees are also required to ensure that they have met the minimum training requirements of NHG Domain Specific Review Board (DSRB) and/ or any other regulatory body (e.g. Health Sciences Authority (HSA)).

5. MENTORSHIP

- 5.1. Each applicant is required to nominate a mentor from NHG and a mentor from LKCMedicine (subject to approval by the review committee) to guide them in their research project. They should approach and discuss the details of the project with their nominated mentors. The CSPP Secretariat may assist in the nomination and matching of appropriate mentor(s) where required.
- 5.2. The Faculty will approve the choice of mentors based on the following eligibility requirements:
- a) Is a clinician/ scientist; if scientist, additional requirement of a co-supervisor who is a clinician;
 - b) Has had experience as a Principal Investigator (PI) in a relevant area of research;
 - c) Has a strong foundation and knowledge in proper conduct of research; and
 - d) Has had experience in supervising or providing mentorship to junior investigators in their research work.

Nominated mentor(s) are recommended, but not limited to be (1) NMRC TA / CSA past or current recipient, (2) Director of Research, (3) CSCS past or current awardee or (4) member of the CSPP Faculty.

Should you require any assistance in identifying suitable mentor(s), please contact the CSPP Secretariat.

6. ASSESSMENT

- 6.1. Awardees must submit an Interim Report within 1 month from the mid-point of the CSPP funding period and a Final Report within 3 months from the end of the funding period.
- 6.2. Those with outstanding report(s) for grants/programmes administered or managed by NHG Group Research that is/are not submitted by the stipulated timeline, will not be eligible to submit new applications² as Principal Investigator (PI) until such report(s) is/are submitted. This will exclude report(s) with extended submission timeline as acknowledged or accepted by the grant/programme Secretariat due to a valid consideration.
- 6.3. Awardees are required to present to the Faculty at the mid-point and/or at the end of the CSPP award period.
- 6.4. Awardees are required to report their research achievements up to 5 years after the end of the award period.

7. APPLICATION PROCESS

- 7.1. Applicants are required to propose a research project and nominate a mentor from NHG and a mentor from LKCMedicine of his/ her choice. These must be detailed in the application form.
- 7.2. Applicants must comply with the requirements of NHG DSRB to be the PI of the proposed project.
- 7.3. Applicants are to note that the proposed project:
 - a) Must be a project with specific aims to be achieved within the award quantum;
 - b) Must be able to achieve the set objectives within the award term.Please refer to Annex 1 for general pointers on writing a good research proposal.
- 7.4. Applicants are required to submit all application documents **in softcopy** to the CSPP Secretariat at NHG Group Research through their Institution's Clinical Research Unit / Clinical Research and Innovation Office (CRU/ CRIO):

Letter of Intent Submission:

- a) **Letter of Intent (LOI)**; and
- b) **Curriculum Vitae (CV)**.

² This refers to any new application for grant/programme administered or managed by NHG Group Research, including the Centre for Medical Technologies and Innovations (CMTi) MedTech Grant, CMTi-National Health Innovation Centre (NHIC) Joint MedTech Grant, NHG-LKCMedicine Clinician Scientist Preparatory Programme (CSPP), NHG-LKCMedicine Clinician Scientist Preparatory Programme Plus (CSPP+), NHG-LKCMedicine Clinician Scientist Fellowship (CSF), NHG-LKCMedicine Clinician Scientist Career Scheme (CSCS), NHG CMTi Clinician Innovator Preparatory Programme (CiPP) and NHG CMTi Clinician Innovator Preparatory Programme Plus (CiPP+).

Full Application Submission:

- c) **CSPP Application Form**; and
- d) **Mentor(s)' Curriculum Vitae (CV)**

- 7.5. The Institution's CRU/ CRIO will set the respective **internal deadlines** for the above submissions. The Institution's CRU/ CRIO will ensure that the respective documents reach the CSPP Secretariat through NHG Group Research by the stipulated deadlines. Applications submitted after the call closing date and time will not be considered.
- 7.6. The Application Form and the Letter of Intent (LOI) can be downloaded from the NHG Research Website (www.research.nhg.com.sg) from the opening date of the Call for Applications.
- 7.7. Shortlisted applicants may be required to conduct a presentation of his/ her research proposal to the CSPP Faculty after the submission of their applications.
- 7.8. Ethics applications are to be submitted to NHG DSRB, relevant IRBs or other regulatory bodies for review after award recommendation, if not already done so. The CSPP Secretariat will coordinate with shortlisted applicants on these matters.
- 7.9. Please allow 6-8 months from the application closing date for processing and review of all applications.

8. APPLICATION EVALUATION CRITERIA

- 8.1. The applications will be reviewed based on the following criteria:
 - a) Potential of Applicant to be developed as a Clinician-Scientist (CS)
The review will be based on the Applicant's Letter of Intent (LOI), Curriculum Vitae (CV), and recommendations by:
 - Nominated mentor(s)
 - Reporting Officer
 - Residency Programme Director (for Residents only).
 - b) Proposed Project
The review is based on the CSPP Application Form and related documents provided. The evaluation of the project should be based on the recommended review criteria stated below:
 - Aims/ objectives/ hypotheses;
 - Importance of the project and what is known about this area of research;
 - Preliminary data, if applicable;
 - Proposed research methodology;
 - Project budget plan;
 - Project team structure;
 - Project timeline;

- Measurable/ trackable milestones; and
- Potential clinical impact and results.

c) Choice of Mentor(s)

The review will be based on the nominated Mentor(s)' Curriculum Vitae (CV).

9. CONTACT INFORMATION

For more information, please refer to the NHG Research Website at www.research.nhg.com.sg and/or contact the CSPP Secretariat:

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Pointers for Good Research Proposals

Good ideas are often undermined by poor proposal preparation. Take time to review and improve on your proposal. Each section of the research proposal should be tackled carefully and to the point, as evaluations are based on how well the guiding questions are answered.

Some general pointers in writing a good proposal are:

- Define the problem statement and build a compelling case for need upfront based on the research gap identified. State your aims and hypotheses clearly.
- Illustrate your understanding of the existing competition in the selected area of research, including an appraisal of current literature and any preliminary results where available.
- Elaborate on your statistical plan e.g. sample size calculation and substantiation.
- Avoid inflating the budget. Propose a realistic budget that can cater to the scope of proposed work to be accomplished. Where possible, leverage on existing equipment/facilities.
- Explain the impact of your research clearly and how you would achieve it. This should not be confused with output KPIs (e.g. no. of paper publications, no. of postdocs recruited etc.) Be specific and quantitative if possible on the research outcomes – e.g. a specific achievement, or a new concept etc.
- Explain how the proposed project would fit into institutional/ programmatic/ organisational research strategy, if applicable.
- Use clear, accessible language. Avoid insider jargon and acronyms. Use direct statement and an active voice.
- Root out inconsistencies in format, typos, misspellings, mislabelling of diagrams, grammar etc. Get another person to proof-read.

CSPP Training Curriculum

Type	Course Titles	Course Fees (incl. GST) ⁴ Accurate as at time of print
Core Course	1. Biostatistics	\$881.27
	2. Good Clinical Practice (GCP) ² Online	\$599.50
	3. Research Preparatory and Study Design	\$412.02
	4. Manuscript Writing and Poster Presentation	\$286.13
	5. Grant Writing and Management	\$526.47
Elective Course (Pick any <u>one</u> Elective) ³	1. Introduction to Evidence in Healthcare	\$572.25
	2. Questionnaire Design	\$618.03
	3. Prognostic Model Course	\$560.81
	4. <i>Introduction to Health Services Research</i>	To be advised by respective course providers
	5. <i>Operations Research Appreciation</i>	
	6. <i>Data Analysis in HSR</i>	
	7. <i>Systematic Review, Health Technology Assessment and Health Economics</i>	
	8. <i>Evaluation of Health Programmes and Economic Evaluation</i>	
	9. <i>Molecular Biology Techniques for Clinical Application</i>	
	10. <i>Extracting the Genome and Targeting Genes</i>	
	11. <i>Gene Expression Microarray</i>	
	12. <i>Capillary Electrophoresis Instruments and Real-Time PCR</i>	
	13. <i>Flow Cytometry</i>	
	14. <i>Clinical, Translational Epigenetics and Epigenomics</i>	
	15. <i>Genome Editing</i>	
	16. <i>Skin Biology and Practice</i>	

²Awardees are required to also be familiar with the Standard Operating Procedures (SOPs) for Proper Conduct of Research (PCR) as supplementary readings.

³Awardees may also propose other elective courses not listed in the table, with justification, and subject to CSPP Faculty's approval.

⁴GST will not be charged for course fees claimed under the CSPP award quantum.

Elective Courses 4 to 16 are subject to availability by the respective external course providers.

Information is accurate as at time of print. Please refer to www.research.nhg.com.sg for latest information.
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