

APPLICATION REQUIREMENTS & EVALUATION CRITERIA

Pitch-for-Funds (PFF)

Objective:

To pilot and seed research programmes for clinicians/non-clinicians aspiring to become future researchers.

General Information

- The main objective of the Pitch-for-funds (PFF) is to equip Academic Clinical Programme (ACP) with the resources to provide seed funding to aspiring researchers under their ACPs. The funding will allow the researchers to generate preliminary data with the intention that they will be able to eventually apply for a cluster or national competitive grant.
- 2. The seed funding will enable young researchers to acquire valuable experience in grants application, study design, project work, writing papers and presenting their data at an early stage of their career within the ACPs.
- 3. Each PFF award is capped at S\$120,000 and for a duration of 3 years. The budget of the PFF should be used primarily for the clinicians to off-set his/her research project expenses with an aim to generate useful data for subsequent research study.
- 4. Each ACP is allowed only one (1) PFF at any period. If the utilisation rate of the current PFF is less than 50% of approval grant amount (i.e. less than S\$60,000) 6 months before award end date, ACPs should submit an extension request for the current PFF and use the current funding to conduct the next grant call instead of applying for a new PFF.
- 5. Overlapping of PFF is not allowed and ACP should write in to JOAM for approval with strong justification to put up a case.
- 6. Pitch-For-Fund is currently only applicable for hospital-based ACPs.



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Nurturing Clinician Researcher Scheme (NCRS)

Objective:

To nurture young clinicians to become successful clinician-researchers within the SingHealth Duke-NUS Academic Medical Centre (AMC), and to spur them onto gaining competencies & experience to become competitive for external research grants, allowing them to embark on a sustainable research career [*i.e. either as a Clinician Scientist (CS) or a Clinician-Investigator (CIV) or a Clinician-Innovator (CIN).*]

Introduction:

- 1) Under the Nurturing Clinician Researcher Scheme (NCRS), nominations may be made for three categories of clinician-researcher, these being:
 - (a) Clinician Scientist (**CS**) support up to \$225,000 over a tenure of up to 3 years.
 - (b) Clinician-Investigator (CIV) support up to \$150,000 over a tenure of up to 3 years.
 - (c) Clinician-Innovator (CIN) support up to \$150,000 over a tenure of up to 3 years.

Guidance on the definitions of and expectations for these three categories may be found in the Guidelines below.

- 2) Each NCRS application must be applied using:
 - i) ACP Programme Funding Application Form and,
 - ii) NCRS Nomination Form.

If ACP has more than one nomination, each nominee should be accompanied by an ACP Programme Funding Application Form and an NCRS Nomination Form (Annex I).

3) In the ACP Programme Funding Application Form:

- (A) The ACP shall provide a list of existing NCRS award recipients in the ACP (if any) in Section P(a).
- (B) An ACP may nominate more than one candidate in any category. When there is more than one candidate in a category, the ACP shall rank the candidates in accordance with their expected potential to succeed in that category of clinician-researcher in Section P(b);
- 4) In each Nomination Form (Annex I) for the candidate, the following information shall be provided:
 - 1. Profile of applicant
 - 2. Description of applicant
 - 3. Departmental plan for applicant's research trajectory / plan
 - 4. Departmental NCSS Records
 - 5. Departmental plan to support applicant's research endeavours if he / she is awarded the NCRS grant.
 - 6. Endorsement by Head of Department
- 5) For each nomination, a research proposal is to be provided by the candidate using **Annex II** (**Research Write-up**), which must be endorsed by the candidate's appointed mentor.



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- the ACP must name the candidate's appointed mentor at the point of application and describe how the mentor will be able to nurture the candidate in his/her career development.
- 6) For each **CIN** nomination, *specific* guidelines for the research proposal (**Section 4-II**) are as below:

(a) Background & Preclinical/Clinical Need

- Background and significance of the preclinical/clinical need/gap identified.
- Current treatment/solutions and their shortcomings.
- What is needed to address the problem and/or treatment gap identified?
- Who is/are the target patients? What are the incidence and/or prevalence? What is the total amount spent per year to address the problem faced by these target patients?

(b) Description of Solution

Give a concise description of the proposed Solution covering the following areas:

- The need and rationale of developing the Solution
- The methods/approach and components of the Solution, and how it works.
- The alternatives that have been or can be considered (if any)
- *Pl's/Industry's preliminary studies (if any) or any other information that will help to establish the importance of the project.*

(c) Uniqueness & Competitive Analysis of Solution

How is the proposed Solution better than existing/emerging competing technologies/ product/service?

(d) Collaborations

Does the project have any associated agreements, such as Collaboration Agreements, Material Transfer Agreements (MTAs) or Non-Disclosure Agreements (NDAs)?

(e) Impact and Translation Pathway

(Public health impact, patient-related outcomes, value proposition) Please describe:

- Clinical importance and impact
- Where project outcomes have potential to be implemented/adopted into workflow, change clinical practice, health care policy
- Cost/ other efficiencies, advantages or benefits quantitated, if possible)

(f) Intellectual Property Management

• Briefly describe potential intellectual property/trade secret/copyright generated from the Solution and how it will be handled

(g) Follow-on Development and Commercialisation Plan

- Describe potential future funding sources beyond this phase such as AM-NHIC MedTech Grant, NHIC I2D Grant, SMART Innovation Grant and NRF Central Gap fund and/or steps to develop the technology
- Plans for licensing, commercialization and/or healthcare adoption into healthcare policy or practice.



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- 7) For each nomination, the **candidate's curriculum vitae**, together with a **Career Development Plan** endorsed by the **Academic Chair of the ACP**, shall be provided using **Annex III**.
- 8) For shortlisted candidates, a short interview with the review panel may be required. Details concerning the interview will be disseminated once it is finalised.
- All application(s) must be completed using the prescribed templates. <u>Failure to comply with</u> requirements in any of the templates and/or an incomplete application will be disqualified and will not be reviewed.
- 10) These documents and data therein will be used for the purpose to review, evaluate, recommend, and approve the NCRS award. The data shall also be used for the purpose to facilitate administration, talent management and development within the SingHealth Duke-NUS Academic Medical Centre.



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Guidelines:

1. The intents or long term objectives for the NCRS awardees are:

| Category | | Intent |
|--------------|---|---|
| Clinician | • | Supports clinicians with the intent and the potential to become career |
| Scientist | | clinician scientists; who will eventually spend a significant proportion of |
| (CS) | | their time in research, typically > 50% FTE (lesser FTE may be expected |
| | | from CS on a health technology track), in order to remain academically |
| | | competitive. CSes may be involved in translational clinical research, |
| | | population health / Health service research or health technology. |
| Clinician | • | Supports clinicians with the intent to make translational clinical research |
| Investigator | | and / or health services research a key part of their clinical career and |
| (CIV) | | who will, in the long run, spend at least > 20% of their FTE on |
| | | research, leading clinical trials or research programmes in areas of |
| | | translational clinical research or health services research, AND be |
| | | supported by research grants form government agencies and / or various |
| | | forms of external resources. |
| Clinician | • | Supports clinicians who approach unmet clinical needs with meaningful, |
| Innovator | | lasting solutions derived from innovation, leveraging on digital |
| (CIN) | | technology and / or bioengineering concepts and who, in the long run, |
| | | spend about 20% of their FTE, researching, in collaboration with |
| | | industries and / or external funding agencies, for innovative solutions / |
| | | devices to be translated to clinical care at the frontline, including those |
| | | with long term plan to be nationally funded (by NMRC, when available) |
| | | as career Clinician Scientist in health technology, or Clinician Innovator. |

2. The award quanta of the NCRS award categories are:

| Category | | Quantum |
|--------------|---|---|
| Clinician | • | The CS award is for a quantum of up to S\$75,000 a year, for tenure of up |
| Scientist | | to 3 years (maximum award \$225,000) |
| (CS) | | |
| Clinician | • | Each CIN and CIV award is for a quantum of up to \$\$50,000 a year, for |
| Investigator | | tenure of up to 3 years (maximum award \$150,000) |
| (CIV) | | |
| Clinician | | |
| Innovator | | |
| (CIN) | | |



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3. The deliverables of the NCRS award categories are:

| Category | Deliverables |
|--------------|---|
| Clinician | • The CS awardee is expected to apply for a NMRC grant, preferably a |
| Scientist | talent development Award, such as a NMRC (TA), within the duration of |
| (CS) | the NCRS support, with the viewing of working towards a CSA-INV award |
| | eventually. The awardees should continue in his/her effort to secure a |
| | national grant throughout the whole NCRS grant period, and beyond, if |
| | necessary. Failing to secure a TA or CSA-INV award, it is acceptable to |
| | attempt applying for a NMRC-NIG award or any of the equivalent. |
| Clinician | • The CIV awardee is expected to apply for an external competitive grant, |
| Investigator | including that from NMRC [Eg. NIG, HSRG, or any of the equivalent), or |
| (CIV) | any other government, public, or private research funding agencies, of a |
| | quantum equal to or higher than the NCRS award, within the duration of |
| | NCRS support. The awardees should continue in his/her effort to secure |
| | an external competitive grant throughout the whole duration of the |
| | NCRS grant period, and beyond, if necessary. |
| Clinician | • The CIN awardee, within the duration of the NCRS support, is expected |
| Innovator | to: |
| (CIN) | i. Apply for follow-on funding from government funding agencies (<i>e.g.</i> |
| | NHIC Innovation to Develop (I2D) Grant, SMART Innovation Grant |
| | and NRF Central Gap Fund) or a NMRC grant that provide support |
| | for sustained career development as a CIN; AND |
| | ii. Demonstrate potential of their project in securing subsequent |
| | financial support from industries. In which case, the end deliverable |
| | is the creation of a physical clinical device, diagnostic solution or |
| | medical technology etc, with the potential to implement across the |
| | AMC and optimally across other healthcare institutions and/or |
| | commercialization. |

Prospective candidates, who are interested to take the CIV or CIN paths, may approach the respective Leads for advice and guidance regarding career paths for these categories.
CIN Lead: Assoc. Prof Derrick Chan (email: <u>derrick.chan.w.s@singhealth.com.sg</u>)

CIV Lead: Assoc. Prof Deidre Anne De Silva (email: <u>deidre.desilva@singhealth.com.sg</u>)

5. The Review Panel may determine the quantum and tenure of any individual award and may also impose specific condition(s) on the potential candidate to undertake. The quantum and tenure of award and/or specific conditions shall have to be accepted by the candidate and the ACP concerned as a pre-requisite for the Review Panel to recommend the candidate to the award committee for an NCRS award. The sum awarded shall be inclusive of all related costs, including



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miscellaneous expenses imposed by the candidate's host institution or relevant agencies. Fund disbursements shall be on an annual basis.

- 6. Each NCRS awardee must enrol into Duke-NUS CCRD's (Centre for Clinician Researcher Development)* Individual Development Plan (IDP) and/or Khoo Scholars Programme and/or the ACE in Grants Programme to seriously prepare for a national grant application.
- 7. Each awardee, with endorsement and support of his/her HOD, is expected to have at least 20% protected time set aside for research. While the awardee is in the IDP/Khoo Scholars Programme, requirements of the programme(s) shall apply. For an awardee who is a Resident with PhD, ACGME residency guidelines shall then apply.
- 8. The ACP Vice-Chair Research and Academic Chair are responsible for all deliverables required of the ACP under the NCRS.

*This will be an expansion of the original Centre for Clinician-Scientist Development (CCSD) in Duke-NUS. Details will be announced later.



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Eligibility Criteria for the Candidate: (at the point of application)

- The NCRS candidate should be a qualified medical doctor/dental specialist registered with the Singapore Medical Council (SMC)/Dental Specialist Accreditation Board (DSAB) respectively, and employed to perform clinical duties in a SingHealth institution (hereinafter referred to collectively as "clinicians"). Additional SMC or DSAB certified qualifications, such as PhD, MCI or equivalent, are preferred.
- 2. On a case-by-case basis, a nursing or allied-health practitioner with a relevant PhD qualification, who performs clinical duties and aspires to become a clinician-researcher, working on human clinical research that has potential health impact, may be considered. Such a nominee must be strongly supported by the ACP with which the nominee is associated.
- 3. The nominee must not be a scientist or staff whose primary career commitment is to perform research.
- 4. The nominee must not be past recipient of a NCSS award.
- After receiving the NCRS grant, the applicant <u>must not have received</u> funding to conduct their own research project which <u>cumulatively exceeds S\$300,000 regardless of funding source</u> e.g. internal, external, philanthropy or industry etc. This is to ensure that the applicant is able to fulfil the NMRC CS-IRG-NIG criteria.
- 6. For a clinician (with MBBS/MD/BDS), the maximum number of years after exiting from specialist training should not exceed 7 years; and for a PhD holder who is applying on an exception basis, the maximum number of years of post-doctoral experience is 7 years post PhD. [Since NMRC's criteria is ≤10 years post specialist exit/post PhD].
- 7. An application <u>must include a Career Development Plan endorsed by the Academic Chair of the</u> <u>ACP</u>, which briefly outlines steps to be taken over the immediate next 5 years to put the nominee on track to becoming a clinician researcher.
- 8. The ACP must commit to set aside at least 20% protected time for the awardee to perform the research (Khoo Scholars programme and ACGME residency guidelines in terms of protected time will apply where applicable). The associated cost shall be borne by the awardee's host institution.
- 9. The Project should encompass elements to support the transition of the candidate to become a proficient clinician researcher (i.e. to be able to initiate and direct his or her own line of research).



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10. In this grant call, newer ACPs and ACPs which have fewer NCRS (previously known as NCSS) awardees are especially encouraged to apply. Strong tangible support in the applicant's preparation by a well-established Clinician Researcher of the appropriate field, who should also mentor the applicant, in the submission is strongly advised