

**ACP PROGRAMME FUNDING**  
**RESEARCH SUPPORT - Nurturing Clinician Scientist Scheme**  
**(NCSS)**

**APPLICATION REQUIREMENTS & EVALUATION CRITERIA**

**Objective:**

To nurture young clinicians 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 Scientist Scheme (NCSS), 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 1 year, 2 years or 3 years.
  - (b) Clinician-Investigator (**CIV**) - support up to \$150,000 over a tenure of 1 year, 2 years or 3 years.
  - (c) Clinician-Innovator (**CIN**) - support up to \$150,000 over a tenure of 1 year, 2 years or 3 years.Guidance on the definitions of and expectations for these three categories may be found in the Guidelines below.
- 2) Each NCSS application must be applied using:
  - i) **ACP Programme Proposal Form** and,
  - ii) **NCSS Nomination Form**.If ACP has more than one nomination, *each nominee should be accompanied by a ACP Programme Proposal Form and a NCSS Nomination Form (ANNEX 1)*.
- 3) In the **ACP Programme Proposal Form**:
  - (A) The ACP shall provide a list of existing NCSS award recipients in the ACP (if any) in **Section O(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 O(b)**;
- 4) In each **Nomination Form (Annex I)** for the candidate, the following information shall be provided:
  - (A) Category applied for, i.e. CS, CIV or CIN
  - (B) Profile of the candidate
  - (C) Current and future research activities/interests/goals/plans.
  - (D) Statement justifying the rationale for nomination of the candidate under NCSS by the ACP.
  - (E) Statement describing the ACP's commitment to develop the candidate and the expectations in terms of deliverables arising from the award of funding to the candidate under the NCSS.
- 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**.
  - 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.

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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)*
- *PI'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 for candidate 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.
- 9) All application(s) must be completed using the prescribed templates. Failure to comply with 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 made available to any persons who are reasonably required to review, evaluate, recommend, and approve the NCSS award. They shall also subsequently be used 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 NCSS awardees are:

<b>Category</b>	<b>Intent</b>
<i>Clinician Scientist (CS)</i>	<ul style="list-style-type: none"> <li>Supports clinicians with the intent and the potential to become <b>clinician scientists</b>; who will eventually spend a significant proportion of their time in research, typically <b>≥ 50%</b>, in order to remain <b>academically competitive</b>. CSes are involved in research at clinical and/or translational level with clinical relevance in mind.</li> </ul>
<i>Clinician Investigator (CIV)</i>	<ul style="list-style-type: none"> <li>Supports clinicians with the intent that research is a key part of their clinical career and who will eventually spend between <b>20% and 50%</b> time in research, AND lead a research programme, AND be supported by grants, trials and/or other resources.</li> </ul>
<i>Clinician Innovator (CIN)</i>	<ul style="list-style-type: none"> <li>Supports clinicians who approach unmet clinical needs with meaningful, lasting solutions derived from <b>innovation, technology and/or biodesign</b> AND who will eventually spend up to 30% time in research that features or emphasizes moving innovative solutions/devices to front-line clinical care.</li> </ul>

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

<b>Category</b>	<b>Quantum</b>
<i>Clinician Scientist (CS)</i>	<ul style="list-style-type: none"> <li>The CS award is for a quantum of up to S\$75,000 a year, for tenure of up to 1 year, 2 years or 3 years (<i>maximum award \$225,000</i>)</li> </ul>
<i>Clinician Investigator (CIV)</i>	<ul style="list-style-type: none"> <li>Each CIN and CIV award is for a quantum of up to S\$50,000 a year, for tenure of up to 1 year, 2 years or 3 years (<i>maximum award \$150,000</i>)</li> </ul>
<i>Clinician Innovator (CIN)</i>	

3. The deliverables of the NCSS award categories are:

<b>Category</b>	<b>Deliverables</b>
<i>Clinician Scientist (CS)</i>	<ul style="list-style-type: none"> <li>The CS awardee must apply for a national funded grant such as <i>NMRC TA, CSA, NIG or above</i> within the duration of support.</li> </ul>

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<i>Clinician Investigator (CIV)</i>	<ul style="list-style-type: none"> <li>The CIV awardee must apply for an external grant (<i>such as one from national [excluding CISSP], philanthropy, foundation, pharmaceutical company, any non SingHealth or Duke-NUS grant funding source etc.</i>) of a quantum equal to or higher than the NCSS award, within the duration of support</li> </ul>
<i>Clinician Innovator (CIN)</i>	<ul style="list-style-type: none"> <li>Projects must demonstrate a potential path to subsequent financial support or aimed towards securing follow-on funding (<i>e.g. NHIC Innovation to Develop (I2D) Grant, SMART Innovation Grant and NRF Central Gap Fund</i>) and should apply for further funding within the duration of the grant.</li> <li>The end deliverable should be to eventually create 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.</li> </ul>

4. For the newer, emerging categories of CIV and CIN, prospective candidates and/or ACPS may approach the respective Leads for advice and guidance on the expected pathways and involvement in research for the different categories.

CIN Lead: Assoc. Prof Derrick Chan (email: [derrick.chan.w.s@singhealth.com.sg](mailto:derrick.chan.w.s@singhealth.com.sg))

CIV Lead: Assoc. Prof Deidre Anne De Silva (email: [deidre.desilva@singhealth.com.sg](mailto:deidre.desilva@singhealth.com.sg))

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 NCSS award. The sum awarded shall be inclusive of all related costs, including miscellaneous expenses imposed by the candidate's host institution or relevant agencies. Fund disbursements shall be on an annual basis.
6. **Each CS awardee must enrol into Duke-NUS CCSD's (Centre for Clinician Scientist 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 is to be accorded 20% protected time** (minimum) 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 is ultimately responsible for all deliverables required of the ACP under the NCSS.

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9. Upon successfully garnering a national or external grant, the awardee shall be deemed to have successfully fulfilled the deliverables and shall then exit the NCSS. To facilitate transition from NCSS to the national or external grant, the ACP shall inform JOAM as soon as there is notification (including informal notification) by the external grant funding agency. Generally, a transition period will then be worked out. The remaining un-utilised funds from the award will then be managed in a manner which preserves the original intent of the NCSS to nurture other clinician-researchers to be competitive in getting their first significant external grant.

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

1. The NCSS 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.
5. Preference shall first be accorded to a nominee who is not a past or existing holder of a significant competitive grant or research funding (irrespective of funding source) cumulatively exceeding S\$100,000 in the immediate preceding two years. *After which, the Review Panel may then consider a suitable candidate who in the immediate preceding 2 years has cumulative grants of quantum just exceeding S\$100,000.* As a general guide, the margin of allowance is 15% to 20%.
6. *For a clinicians (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 must include a Career Development Plan endorsed by the Academic Chair of the ACP, 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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9. In this grant call, newer ACPs and ACPs which have fewer NCSS awardees are especially encouraged to apply. Strong tangible support in the applicant's preparation by a well-established Clinician Investigator or Clinician-Scientist in the submission, who should also mentor the applicant, is strongly advised.

**Miscellaneous information:**

1. For this cycle of application, we expect to support around 5 candidates.
2. All approved NCSS awards in this cycle will commence from 01 October 2020, Thursday.

**Closing Date:**

1. The due date for submission is 30 April 2020, Thursday.