

May 2019 Grant Call Roadshow

8 & 10 April 2019

Agenda

- **Grant Calls for May 2019:**

- Clinical Trial Grant (CTG)
- Open Fund Large Collaborative Grant (OF-LCG)^
- Health Services Research Grant (HSRG)/ Subcategory Health Services Research New Investigator Grant (HSR-NIG)*
- Clinician Scientist Individual Research Grant (CS-IRG)/ Subcategory CS-IRG-New Investigator Grant (CS-IRG-NIG)
- Open Fund Individual Research Grant (OF-IRG)/ Subcategory Open Fund Young Individual Research Grant (OF-YIRG)
- Singapore Translational Research Investigator Award (STaR)
- Clinician Scientist Award (CSA)
- Transition Award (TA)
- Clinician Innovator Development Award (CIDA) *previously known as the Clinician Innovator Award (CIA)*

- **National Health Innovation Centre's sharing**

- **Singapore Clinical Research Institute's sharing**

^Details will be communicated closer to launch

**Details communicated in separate roadshow session*

Thematic Grants

Translation Pathway

PIs should plan and detail the translation pathway of their proposed research, e.g. potential areas of implementation, adoption into healthcare policies.

Please note that an additional section on “Translation Pathway” will be included in the proposal template.

Clinical Trial Grant (CTG)

Clinical Trial Grant (CTG)

Objective

- To enable clinicians to carry out clinical trials for the development of novel therapies, interventions and diagnostics.

Two Schemes

- CTG-Industry Collaborative Trials (CTG-ICT)
(Open whole year)
- CTG-Investigator-Initiated Trials (CTG-IIT)
(no May 2019 grant call)

CTG-ICT Scheme

- Supports ICTs that involve both clinician and company contributing intellectual inputs and funds to conduct the trial and developing novel or pre-existing therapies/drugs/medical device for new indications.
- **This scheme does not support trials that are fully funded/sponsored by companies.** Such trials typically do not require the clinicians' intellectual inputs as the clinical trial protocol has already been designed by the company, and the clinicians' involvement is more for subject/patient recruitment.
- Industry partner required
- At least 70% of total project costs (cash or in-kind) contributed by industry partner
- Submit RCA showing budget
 - *Only industry contribution incurred in SG will be considered as admissible*
 - *Admissible in-kind drug cost contribution by companies is limited to equivalent to non-drug cost contribution (next slide)*
- No cap in funding / project (inclusive of IRC)
- Funding duration : Up to 5 years

*Admissible industry in-kind drug cost contribution

- Admissible in-kind drug cost contribution from companies is capped at the amount of non-drug cost contribution from the companies
- Example

| Line items | Industry contribution (cash and in-kind) (\$ in mil) | <u>Admissible</u> industry contribution# (cash and in-kind) (\$ in mil) |
|--------------------|------------------------------------------------------------|----------------------------------------------------------------------------------|
| EOM | 1 | 1 |
| EQPT | 0.5 | 0.5 |
| OOE Consumables | 0.5 | 0.5 |
| Subtotal | 2 | 2 |
| OOE Drugs | 10 | 2* |
| Total | 12 | 4 |

* Admissible in-kind drug cost contribution = \$2mil capped at subtotal (sum of EOM, EQPT and OOE (consumables))

#Cost is admissible only if they are incurred in Singapore

CTG-ICT – Review

- 2-stage review: LOI stage. Shortlisted applications will be invited to submit full proposal
- Review by the CTG review panel will take about 2 months (dep on clarifications required)

Assessment Criteria

- a) Scientific and clinical merit of proposal and track record of applicants
- b) Focus on HBMS 5 priority therapeutic areas
- c) Address unmet clinical need in SG with good potential to be implemented in local healthcare system
- d) Agreement with industry partner on IP
- e) Result in technology transfer, talent and/or capability building which SG would like to gain (or would strengthen SG's position in points b-c)
- f) Lead to some form of return on investment for SG
(e.g. healthcare savings, discounted price for use of the therapy, royalties, further contribution to research activities)

CTG - Eligibility Criteria

- Each grant application must be submitted by a **Clinical Principal Investigator** who has to fulfil the eligibility criteria listed below at the point of application. Only one **Principal Investigator (PI)** is allowed per application.
- Must be **clinically qualified** (i.e. with MD/MBBS/BDS) with **clinical specialty** certification, and **post-graduate** clinical training and experience.
- Must **fulfill HSA's requirements** for PIs who are conducting clinical trials. Please refer to HSA website for detailed guidelines on conducting clinical trials:

http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Clinical_Trials/Overview/Introduction_to_Clinical

http://www.hsa.gov.sg/content/hsa/en/Health_Products_Regulation/Clinical_Trials/Overview/FAQ.html#d1

CTG - Eligibility Criteria (cont'd)

- Must hold a primary appointment and be full time employed and salaried in a **local public hospital/ public health institution/ national specialty centre/ public university/ academic medical centre**.
- Must be an independent PI 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), or substantial publication record.
- Have a **laboratory or clinical research program** that carries out research in Singapore.
- Hold a minimum of 9 months employment with the above institutions, and fulfil full time residency in Singapore over a period of the calendar year.
- No outstanding reports from previous BMRC, NMRC grants and other national grants.

Submission Mode and Deadline

- It is **mandatory** for **all applications** to be submitted **online via IGMS** (CTG-ICT - *open throughout the year*).
- Please ensure that all submissions are endorsed by the corresponding host institution's Research Director.
- We will not entertain any late/hardcopy submissions or submissions from individual applicants without endorsement from the Host Institution.
- Application forms, guidelines and grant call information are available on the NMRC website.

Individual Grants

Translation Pathway

PIs should plan and detail the translation pathway of their proposed research, e.g. potential areas of implementation, adoption into healthcare policies.

Please note that an additional section on “Translation Pathway” will be included in the proposal template. This is not applicable to OF-IRG/OF-YIRG.

Clinician Scientist-Individual
Research Grant (CS-IRG)
Clinician Scientist-Individual
Research Grant-New Investigator
Grant
(CS-IRG-NIG)

CS-IRG (1)

Objective

- CS Individual Research Grants (CS-IRGs) are provided to Clinician Scientists (CS) to enable them to carry out medical research on a specifically defined topic for a period of 3 years in local public institutions.
- CS-IRG supports basic, clinical and translational research.

Funding Quantum, Duration and Grant Call Frequency

- The CS-IRG will provide a funding quantum of up to **S\$1.5M** per project for **3 years** with up to additional 20% indirect costs provided to the host institution of the lead PI.

CS-IRG (2)

Eligibility Criteria

- **Grant application to be led by a Clinical PI**
 - PI must be clinically qualified (i.e. with MD/MBBS/BDS) and preferably with post-graduate clinical training and experience.
- **Exceptions are given to Allied Health Professionals who fall within the list of professions. The PI must possess a minimum academic qualification of a PhD or the equivalent training.**

| List of Professions | | | |
|-------------------------|------------------------|-----------------|------------------------|
| Audiologist | Dietician | Optometrist | Prosthetist/ Orthotist |
| Biostatistician | Epidemiologist | Pharmacist | Radiation Therapist |
| Clinical Pharmacologist | Nurse | Physiotherapist | Radiographer |
| Clinical Psychologist | Occupational Therapist | Podiatrist | Speech Therapist |

CS-IRG (3)

Eligibility Criteria

- For proposals **involving patients**, the clinical PI or co-I should be **SMC registered**; or should be able to demonstrate ability to access patients through SMC registered collaborators.
- For some CS-IRG proposals it is recognized that some studies may be **pre-clinical** and do not require the PI to be SMC registered.
- Only one PI is allowed per application. The number of application by an individual (as PI) is capped at 1 grant application per grant type in a grant call.

CS-IRG (4)

Additional Eligibility Criteria:

- a) Hold a primary appointment in a local public hospital/public health institutions/national specialty centre/public universities/Academic Medical Centres and salaried by the institution.
- b) Be an independent PI 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) or substantial publication record.
- c) Have a laboratory or clinical research program that carries out research in Singapore.
- d) Hold a minimum of 9 months employment with a local Singapore institution. Upon award, the PI must agree to fulfill at least 6 months of residency in Singapore for each calendar year over the duration of the grant award.
- e) No outstanding reports from previous BMRC, NMRC and other national grants

CS-IRG (5)

- Open to proposals of the highest quality across the breadth of disciplines relevant to its mission
- To better realise the goals of Health and Biomedical Sciences (HBMS) in Singapore, the following five therapeutic areas have been identified as national priorities:
 - Cancers
 - Cardiovascular diseases
 - Diabetes mellitus and related metabolic/ endocrine disorders
 - Infectious diseases
 - Neurological and sense disorders
- While the focus of the CS-IRG is on scientific excellence, the HBMS community is encouraged to address these therapeutic areas

Subcategory CS-IRG-NIG

Objective

- The **CS-IRG New Investigator Grant (CS-IRG-NIG)** is a sub category of the CS-IRG to cater for new clinical investigators.
- Applicants with substantial research experience will not be accepted under this category.

Funding Quantum, Duration and Grant Call Frequency

- The CS-IRG-NIG will provide a funding quantum of up to **S\$200,000** per project for **2 years** with up to additional 20% indirect costs provided to the host institution of the lead PI.

NIG-specific Eligibility Criteria

- Applicants who are applying as new investigators category have to work with a mentor for guidance in their research. This mentoring will provide support for a period of supervised research leading eventually to the clinical investigators conducting larger scale research projects independently. Please note that the NIG is intended to fund a new investigator's independent project, and not to provide additional funding for the mentor's project (or clinical trial).
- To be eligible for NIGs in general, the following requirements apply:
 - i. Applicants must not have held any national grants (e.g., NMRC, A*STAR, NRF, MOE AcRF Tier II, etc) or international grants (e.g., MRC, NIH, NHMRC, etc) as a PI/Co-PI* **prior to the award of the NIG.**
 - ii. Applicants must not have received funding to conduct their own research project which cumulatively exceeds \$300,000. This can be funding from any sources.

**Co-PIs refer to PIs whose projects are jointly led by other PIs (e.g. projects under NMRC's Bedside & Bench grant). They are not the same as, and should not be confused with Co-Investigators (Co-Is).*

Review Process & Assessment Criteria

| | CS-IRG | CS-IRG-NIG |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Review Process | <u>Two stage review process:</u> 1. International peer review 2. Local Review Panel (LRP) | <u>Evaluation by:</u> 1. Local Review Panel (LRP) |
| Assessment Criteria | <ul style="list-style-type: none"> • Scientific excellence • Feasibility of study in local context • Productivity • Track Record of Investigators <ul style="list-style-type: none"> • Overall Impact in local context –influence on the research fields | <ul style="list-style-type: none"> • Scientific excellence • Feasibility of study in local context • Productivity • Suitability of the applicant to be an independent investigator and to assume the role of a PI <ul style="list-style-type: none"> • Overall Impact in local context – influence on the research fields |

Open Fund Individual Research
Grant (OF-IRG)

Open Fund Young Individual
Research Grant (OF-YIRG)

OF-IRG

OFIRG is provided to support the conduct of research proposals in basic and translational clinical research that are relevant to human health and wellness as well as research that looks at the causes, consequences, diagnosis, prevention and treatment of human diseases.

Grant call frequency: Twice a year

Funding Quantum: up to \$1.5M (inclusive of up to 20% indirect costs) for up to 5 years

Research Themes

- Open to proposals of the highest quality across the breadth of disciplines relevant to its mission
- To better realise the goals of Health and Biomedical Sciences (HBMS) in Singapore, the following five therapeutic areas have been identified as national priorities:
 - Cancers
 - Cardiovascular diseases
 - Diabetes mellitus and related metabolic/ endocrine disorders
 - Infectious diseases
 - Neurological and sense disorders
- While the focus of the IRG is on scientific excellence, the HBMS community is encouraged to address these therapeutic areas and consider their proposals' relevance to the HBMS industry sectors in PharmBio, MedTech, Food & Nutrition and Personal Care.

Evaluation Criteria

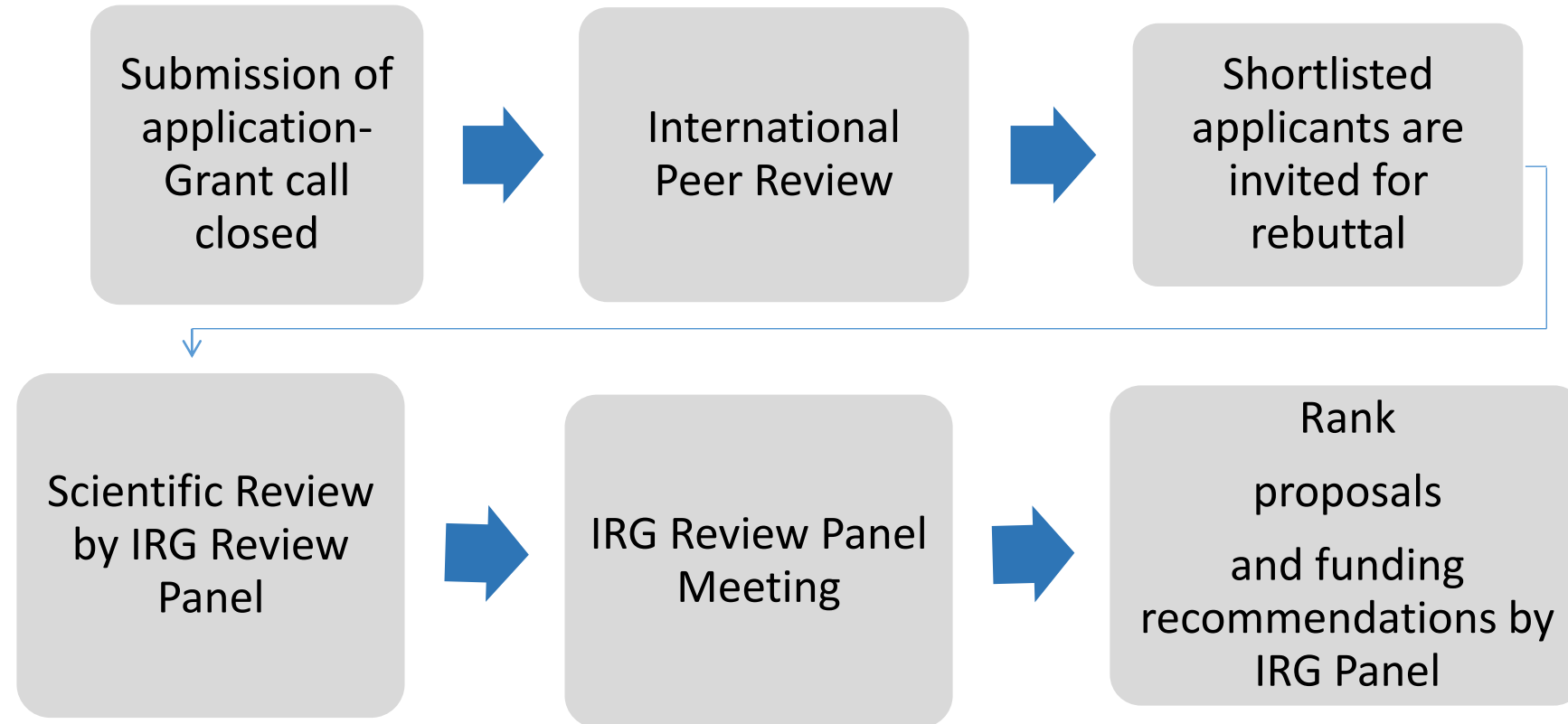
- Quality of the science
- Capability of the research performers to conduct the research
- Objectives of the research program in context of HBMS goals*

**The vision of HBMS domain is to be a leading centre that advances human health and wellness, and creates economic value for Singapore and Singaporeans, through the pursuit of excellence in research and its applications*

Eligibility Criteria for IRG

- Only one Principal Investigator (PI) is allowed per application.
- Applicant applying as **Principal Investigator** is required to fulfil the following criteria at the point of application:
 - a) Holds a primary appointment in a local publicly funded institution and salaried by the institution.
 - b) PIs should have PhD or MD/MBBS/BDS qualifications. (*Exceptions would be made on a case-by-case basis*).
 - c) Is an independent PI 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, or PI status in research institutes.
 - d) Has a laboratory or clinical research program that carries out research in Singapore
 - e) 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.
 - f) Has no outstanding reports from previous BMRC, NMRC grants, and other national grants.
 - g) 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.

IRG Review Process



OF-YIRG

- Sub-category of IRG
- Young IRG is a step for the new investigator to a first independent national level grant

Grant call frequency: Twice a year

Funding Quantum:

- up to \$0.3M (Inclusive of up to 20% indirect costs) for up to 3 years

Research Themes

- Open to proposals of the highest quality across the breadth of disciplines relevant to its mission
- To better realise the goals of Health and Biomedical Sciences (HBMS) in Singapore, the following five therapeutic areas have been identified as national priorities:
 - Cancers
 - Cardiovascular diseases
 - Diabetes mellitus and related metabolic/ endocrine disorders
 - Infectious diseases
 - Neurological and sense disorders
- While the focus of the IRG is on scientific excellence, the HBMS community is encouraged to address these therapeutic areas and consider their proposals' relevance to the HBMS industry sectors in PharmBio, MedTech, Food & Nutrition and Personal Care.

Evaluation Criteria

- Quality of the science
- Capability of the research performers to conduct the research
- Objectives of the research program in context of HBMS goals*

**The vision of HBMS domain is to be a leading centre that advances human health and wellness, and creates economic value for Singapore and Singaporeans, through the pursuit of excellence in research and its applications*

Eligibility Criteria for YIRG

- Only one Principal Investigator (PI) is allowed per application.
- Applicant applying as **Principal Investigator** is required to fulfil the following criteria at the point of application:
 - a) Holds a primary appointment in a local publicly funded institution.
 - b) PIs should have PhD or MD/MBBS/BDS qualifications (*Exceptions would be made on a case-by-case basis*).
 - c) Has a laboratory or clinical research program that carries out research in Singapore
 - d) 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.
 - e) 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.

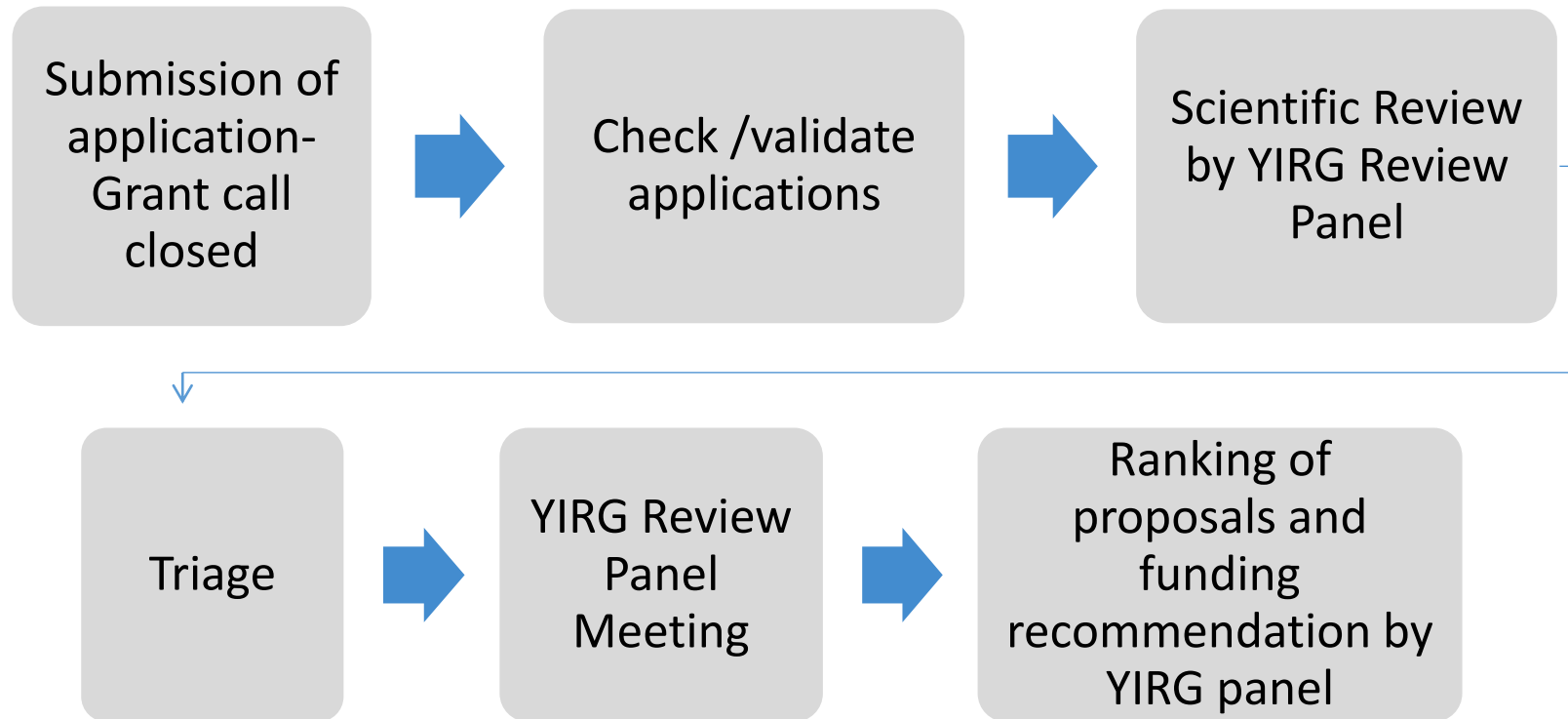
Additional Eligibility Criteria for YIRG (1)

- a) Applicants who are applying for the Young IRGs are strongly encouraged to work with a mentor for guidance in their research. This mentoring will provide support for a period of supervised research leading eventually to the investigators conducting larger scale research projects independently.
- b) Applicant's postdoctoral experience should not exceed 7 years for PhD holders and 10 years for MBBS/MD/BDS holders. No exceptions will be allowed.
- c) There will not be a limit to the amount of prior funding that OF-YIRG applicants have received. However, awardees of A*STAR Investigatorship, NRF Fellowship, MOE Tier 2 and 3 grants, and MOH/NMRC IRGs will not be eligible for OF-YIRG.
- d) Applicant should not have held any prior OF-YIRG award.

Additional Eligibility Criteria for YIRG (2)

- e) Applicants must indicate how the proposed area of work would be distinct from their current supervisor's existing research. The applicant's current supervisor should not be a co-investigator on the proposal.
- f) Upon the award of the OF-YIRG, the host institution will be required to provide written confirmation from either the applicant's Head of Institution or supervisor to describe the steps the institution will take to demonstrate its commitment to his/her career development. This must include provision of appropriate space to carry out the work proposed, but may also include investment in the equipment necessary to establish the laboratory, access to shared institutional resource, and career development support etc.

Young IRG Review Process



Submission Mode and Deadline

- It is **mandatory** for **all applications** to be submitted **online via IGMS** by **31 May 2019, 5pm.**
- Please ensure that all submissions are endorsed by the corresponding host institution's Research Director.
- We will not entertain any late/hardcopy submissions or submissions from individual applicants without endorsement from the Host Institution.
- Application forms, guidelines and grant call information are available on the NMRC website.

Human Capital Awards & Talent Development Programmes

Translation Pathway

PIs should plan and detail the translation pathway of their proposed research, e.g. potential areas of implementation, adoption into healthcare policies.

Please note that an additional section on “Translation Pathway” will be included in the proposal template.

STaR Investigator Award

STaR Investigator Award (1)

Objective

- A prestigious award offered by the MOH to recognise and support internationally renowned and outstanding investigators in translational and clinical research

Funding Quantum

First STaR Award:

- **S\$8mil over 5 years** comprising:
 - PI's salary support between **S\$400k to \$600k** per annum
 - Grant support of up to **S\$5mil** (depending on salary support required)
 - 20% indirect costs

STaR Award Renewals*:

- **S\$5mil (1st renewal) and S\$3mil (2nd renewal onwards) over 5 years**
 - PI's salary support **up to S\$600k** per annum
 - Grant support and 20% indirect costs will be adjusted accordingly

** Institutions are encouraged to co-fund; Applications with co-funding would be considered favourably during review.*

Grant Call Frequency

- Twice a year
- Opening dates: **May** and **November**

STaR Investigator Award (2)

Eligibility Criteria

- i. Applicants should hold a **clinical qualification (e.g. MBBS, MD, BDS or equivalent)** with specialty training beyond medical or dental school (including specialists, family physicians and public health practitioners)^{1,2}.
- ii. Applicants should have a **strong track record of scientific achievement, conduct cutting edge translational and clinical research and produce outstanding research output with clinical and health impact**.
- iii. Applicants who are **PhD holders working in human clinical research** (including PhDs in areas such as biostatistics, epidemiology, behavioural science, nursing, pharmacy, psychology, and allied health) and whose research is clinically relevant and has potential health impact, will be considered as exceptions on a case-by-case basis³.
- iv. Non-medically trained PhD applicants conducting laboratory based research are not eligible.
- v. Applicant must hold the following appointments:
 - a. A primary appointment in a local public hospital/public health institutions/national specialty centre/public university/Academic Medical Centre and be salaried by the institution; and
 - b. A regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school **within 3 months of award conveyance**.
- vi. Applicant must agree to fulfil at least 9 months of residency in Singapore for each calendar year over the duration of the grant award (Host Institution must provide a letter, to commit that the STaR applicant will spend at least 75% of their time in Singapore upon award).
- vii. Applicant must generally **not be beyond the retirement age** at the point of first award¹.
- viii. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

Notes:

1. *Existing holders of NMRC Human Capital Awards (i.e., TA, CSA and STaR) are exempted.*
2. *Clinicians with recognised specialty training are:*
 - a. *Clinicians who have full, conditional or temporary registration with SMC as specialist; or*
 - b. *Clinicians who have SMC recognised postgraduate qualifications as provided in the MOH website, which includes registration with specialist boards or specialist colleges (e.g., American Board of Internal Medicine, Royal College of Physicians), but not necessarily registered in SMC's Register of Specialists.*
 - c. *Clinicians who do not fulfil the above but are able to demonstrate completion of specialist training in countries which do not have specialist boards/colleges and are holding consultant positions as a specialist may be considered on a case-by-case basis.*
3. *Applicants who are submitting on an exception basis are to submit their CV (with track records including publication records and grants held as PIs/Co-PIs in the past 5 years) to the Secretariat to determine their eligibility prior to submitting a full proposal.*

STaR Investigator Award (3)

Review Process

- **Two-stage** review process comprising an **international peer review stage** followed by a **collective review** by STaR Panel. Applicants may be contacted to be interviewed by the STaR panel if needed.
- The review process will take about 6 months after the application closes.

Assessment Criteria

- Scientific excellence will be the highest priority
- Feasibility of study in local context
- Productivity
- Track Record of PI
- Overall Impact in local context

Clinician Scientist Award (CSA)

Clinician Scientist Award (1)

Objective

- To provide salary & funding support for selected outstanding clinician scientists, to enable them to carry out internationally competitive translational and clinical research.
- 2 categories of award:
 - Investigator level (INV)
 - Senior Investigator level (SI)

Funding Quantum

- PI's salary support according to NMRC annual salary cap
- Grant support of up to:
 - **S\$675k over 3 years** (INV category)
 - **S\$1.75mil over 5 years** (SI category)
- 20% indirect costs

Clinician Scientist Award (2)

- **Two** categories for time commitment in research
 - i. $\geq 70\%$
 - ii. 50-69 %
- Corresponding salary component
 - i. $\geq 70\%$ time commitment
 - Full salary support (up to NMRC annual salary cap)
 - ii. 50-69% time commitment
 - Salary support proportionate to time commitment

Grant Call Frequency

- Twice a year
- Opening dates: **May** and **November**

Clinician Scientist Award (3)

Eligibility Criteria

- i. Applicants should hold a **clinical qualification (e.g. MBBS, MD, BDS or equivalent), with specialty training beyond medical or dental school** (including specialists, family physicians and public health practitioners)^{1,2}.
- ii. Applicants who are **PhD holders working in human clinical research** (including PhDs in areas such as biostatistics, epidemiology, behavioural science, nursing, pharmacy, psychology, and allied health) and whose research is **clinically relevant and has potential health impact**, will be considered as exceptions on a case-by-case basis³.
- iii. Non-medically trained PhD applicants conducting laboratory based research are not eligible.
- iv. Applicants must have been an independent PI on at least one national or international peer-reviewed research grant, equivalent to an Individual Research Grant (IRG)-level grant.
- v. Applicant must hold the following appointments:
 - a) A primary appointment in a local public hospital/public health institutions/national specialty centre/public university/Academic Medical Centre and be salaried by the institution; and
 - b) A regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school **within 3 months of award conveyance**.
- vi. Applicant must be a Singapore citizen or Permanent Resident **at the point of application**.
- vii. Applicant must generally **not be beyond the retirement age** at the point of first award¹.
- viii. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

Notes:

1. Existing holders of NMRC Human Capital Awards (i.e., TA, CSA and STaR) are exempted.
2. Clinicians with recognised specialty training are:
 - a) Clinicians who have full, conditional or temporary registration with SMC as specialist; or
 - b) Clinicians who have SMC recognised postgraduate qualifications as provided in the MOH [website](#), which includes registration with specialist boards or specialist colleges (e.g., American Board of Internal Medicine, Royal College of Physicians), but not necessarily registered in SMC's Register of Specialists.
 - c) Clinicians who do not fulfil the above but are able to demonstrate completion of specialist training in countries which do not have specialist boards/colleges and are holding consultant positions as a specialist may be considered on a case-by-case basis.
3. Applicants who are submitting on an exception basis are to submit their CV (with track records including publication records and grants held as PIs/Co-PIs in the past 5 years) to the Secretariat to determine their eligibility prior to submitting a full proposal.

Clinician Scientist Award (4)

Review Process

- **Two-stage** review process comprising an **international peer review stage** followed by a **collective review** by the Local CSA Panel.
- The review process will take about 6 months after the application closes.

Assessment Criteria

- Scientific excellence will be the highest priority
- Feasibility of study in local context
- Productivity
- Track Record of PI
- Overall Impact in local context

Transition Award (TA)

Transition Award (1)

Objective

- To assist **budding, young clinician scientists** who have just returned from formal research training, to build up their capability in research
- Help the clinicians to transit to a stable independent research position or other independent research funding.

Funding Quantum

Funding quantum is awarded over 3 years comprising:

- PI's salary support according to NMRC annual salary cap
- Grant support of up to **S\$375k**
- 20% indirect costs

Applicants have the flexibility to adjust the project duration up to 4 years.*

Grant Call Frequency

- Twice a year
- Opening dates: **May** and **November**

** Funding quantum remains capped at 3 years. Applicant is required to declare the proposed project duration at the point of application.*

Transition Award (2)

- **Two** categories for time commitment in research
 - i. $\geq 70\%$
 - ii. 50-69%
- Corresponding salary component
 - i. $\geq 70\%$ time commitment
 - Full salary support (up to NMRC annual salary cap)
 - ii. 50-69% time commitment
 - Salary support proportionate to time commitment

Transition Award (3)

Eligibility Criteria:

- i. Applicants should hold a **clinical qualification (e.g. MBBS, MD, BDS or equivalent), with specialty training beyond medical or dental school** (including specialists, family physicians and public health practitioners)¹.
- ii. Applicants must have received **in-depth scientific training** through a PhD programme, Masters programme, or at least 2 years post-doctoral intensive research experience, in relevant local or overseas universities, research institutes, centres etc.
- iii. Applicants who **are PhD holders working in human clinical research** (including PhDs in areas such as biostatistics, epidemiology, behavioural science, nursing, pharmacy, psychology, and allied health) and whose research is **clinically relevant and has potential health impact**, will be considered as exceptions on a case-by-case basis².
- iv. Non-medically trained PhD applicants conducting laboratory based research are not eligible.
- v. Applicants should **not have been an independent PI** on national/international research grants³.
- vi. For clinicians (with MBBS/MD/BDS), the maximum number of years after **exiting from specialist training should not exceed 10 years**⁴; For PhD holders who wish to apply on an exception basis, the maximum number of years of postdoctoral experience is **10 years post PhD**.
- vii. Applicant must hold the following appointments:
 - a) A primary appointment in a local public hospital/public health institutions/national specialty centre/public university/Academic Medical Centre and be salaried by the institution; and
 - b) A regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school **within 3 months of award conveyance**.
- viii. Applicant must be a Singapore citizen or Permanent Resident **at the point of application**.
- ix. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

Notes:

1. *Clinicians with recognised specialty training are:*
 - a) *consultant positions as a specialist may be considered on a case-by-case basis. Clinicians who have full, conditional or temporary registration with SMC as specialist; or*
 - b) *Clinicians who have SMC recognised postgraduate qualifications as provided in the MOH website, which includes registration with specialist boards or specialist colleges (e.g., American Board of Internal Medicine, Royal College of Physicians), but not necessarily registered in SMC's Register of Specialists.*
 - c) *Clinicians who do not fulfil the above but are able to demonstrate completion of specialist training in countries which do not have specialist boards/colleges and are holding.*
2. *Applicants who are submitting on an exception basis are to submit their CV (with track records including publication records and grants held as PIs/Co-PIs in the past 5 years) to the Secretariat to determine their eligibility prior to submitting a full proposal.*
3. *Recipients of institutional grants or NIG grants are eligible to apply. Applicants who have previously held one national grant (equivalent to Exploratory Developmental Grant (EDG) or Individual Research Grant (IRG) level), can apply on exceptions basis with justifications.*
4. *Clinicians who exited from specialist training more than 10 years ago and hold a PhD degree may write in for consideration on an exception basis.*

Transition Award (4)

Criteria on PI's previously held grants:

- Not an independent PI on national/international research grants.
- Recipients of institutional grants or NIG grants are eligible to apply.
- Applicants who have previously held one national grant (e.g. EDG or IRG), can apply on exceptions basis with justifications.

Transition Award (5)

Review Process

- Evaluation by the Transition Award Review Panel (TARP).
- The review process will take about 5-6 months after the application closes.
- Shortlisted applicants may be invited for interview by the panel.

Assessment Criteria

- Scientific excellence will be the highest priority
- Feasibility of study in local context
- Productivity
- Overall Impact in local context
- Track record of mentor and mentorship training plans
- Suitability of the applicant to be an independent investigator and to assume the role of a Principal Investigator in the proposal.

Clinician Innovator Development Award (CIDA) *

** Previously known as “Clinician Innovator Award”*

Clinician Innovator Development Award (1)

Objective

- The Clinician Innovator Development Award (CIDA) aims to support clinicians with potential medical innovation ideas so that they can generate pilot data and bring their ideas to the next level and subsequent funding (e.g., NHIC I2D).
- This pilot programme is jointly administered by NMRC and NHIC.

Funding Quantum

Funding awarded is over **2 years** and comprising:

- PI's salary support is **up to 0.3 FTE[^]** and in accordance to NMRC annual salary cap
- Grant support of up to **S\$100k**

Grant Call Frequency

- Twice a year
- Opening dates: **May** and **November**

** The award is non-renewable.*

[^] NMRC supports up to 20% of the salary; Institution is required to match with 10% of the salary.

Clinician Innovator Development Award (2)

Eligibility Criteria

- i. Applicant should hold a clinical qualification (e.g. MBBS, MD, BDS or equivalent), with specialty training beyond medical or dental school (including specialists, family physicians and public health practitioners). The maximum number of years after exiting from specialist training should not exceed 15 years.
- ii. Applicant must be registered with the SMC/SDC and hold a primary appointment of at least 0.6 FTE in a local public health institution.
- iii. Applicant must be a Singapore citizen or Permanent Resident at the point of application.
- iv. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.
- v. Applicant must not currently be supported under the Transition Award (TA), Clinician Scientist Award (CSA) or Singapore Translational Research (STaR) Investigator Award. Applicants for the CIA also cannot make concurrent applications for the TA, CSA or STaR Awards. Applicants are allowed to hold up to 0.3 FTE salary support under the Clinician Scientist / Clinician Investigator Salary Support Programme (CS/CISSP), if awarded the CIA.

Clinician Innovator Development Award (3)

Review Process

- The applications will be evaluated through a one-stage review process by a local selection panel.
- The review process will take about 5-6 months after the application closes.

Assessment Criteria

- Feasibility of study in local context
- Productivity
- Overall Impact in local context
- Track record of the investigators
- Suitability of the applicant to undertake the proposed research
- Track record of mentor and mentorship training plans*

** From May 2019 grant call onwards, applicant may nominate a mentor in the application.*

NMRC Research Training Fellowship

NMRC Research Training Fellowship

Objective

- Awarded to outstanding and talented clinicians and health science professionals for research training to have qualifications and skills to become Clinician Scientists and Principal Investigators respectively.

Eligibility Criteria

- Applicants must be **medical doctors/dental surgeons** (i.e., with MBBS/MD/BDS degree) who are registered with the Singapore Medical Council/Dental Board. Residents or AST/BST trainees who wish to pursue research training in the midst of their clinical training will be required to submit additional documents. Medical/House officers are not eligible to apply.
- Practicing **health science professionals** who fall within the list of Allied Health Professions may apply. Health science professional applicant must either be a PhD degree holder or applying for training leading to a PhD degree.
- Applicants must be Singapore citizens or Permanent Residents **at the point of application**.
- Applicants must be employed in a public institution in Singapore during and throughout duration of the award. They will also be required to serve a bond with the Government of Singapore upon the completion of training.
- Applicants are encouraged to apply for local training if expertise is available locally so that knowledge acquired is applicable in the local context.
- The curriculum of the formal degree should be research-based. Applicants are advised to apply to the university of interest and liaise the necessary arrangements for their research training or degree programme concurrently with this fellowship application to avoid delay in the submission of the application and commencement of training.

Notes:

1. Please refer to the NMRC website for details on the strategic areas of research, eligibility criteria, submission deadline, sample application form and award guidelines.
2. Applications are to be submitted **online** via IGMS.
3. Endorsement by the Research Director (for host Institution) on IGMS is required upon submission.
4. Late submissions, submissions from individuals or those without endorsement from the Host Institution **will not be entertained**.

Areas of Research

The Human Capital Awards (STaR Award, CSA, TA and CIDA) and Talent Development Programmes (NMRC Research Training Fellowship) are open to applications on all research areas.

Applicants focusing on the translation of research and innovations into healthcare in the following strategic areas (covering both expertise in technology as well as use case areas) will be prioritised:

- Medical Technology (MedTech), Artificial Intelligence (AI), Data Science and Digital Health
- Epidemiology, Population Health and Implementation Science
- Precision Medicine
- Healthy and Productive Longevity
- Family Medicine and Primary Care

**More info will be available on the respective programmes' websites closer to grant call opening.*

Submission Mode and Deadline

- It is **mandatory** for **all applications** to be submitted **online** via **IGMS** by **31 May 2019, 5pm**.
- Endorsement by the Research Director (for Host Institution) and Dean (for Academic Institution)* or equivalent upon submission.
- The Host institution to submit a summary of the applications to NMRC.
- Late submissions, submissions from individuals or those without endorsement from the Host Institution **will not be entertained**.
- Application forms, guidelines and grant call information are available on the NMRC website.

** Applicable only for STaR, CSA and TA applications.*

Important Points on Submission

Common Mistakes

- Abstracts exceeded word limit
- "Biomedical and Life Sciences" not selected as Main Research Area
- HRCS coding not selected
- Proposal and CV documents exceeded page limit
- Wrong templates used for required documents
- Documents uploaded in the wrong sections
- Unrequired documents/information provided (e.g. NRIC in CV, budget quotations, letter of support, manuscript)
- Inconsistent information provided
 - E.g. Members' roles indicated differently in IGMS, proposal, signatory section and file name
 - E.g. Project title and budget indicated differently in IGMS and in signatory section
- Wrong calculation for SHC – amount should only reflect support from NMRC, within the stipulated salary cap

PI/ORE are reminded to refer to the application guides and Read-Me guide. NMRC reserves the right to reject incomplete/non-compliant submission.

Important Points on Submission

NMRC will reject application upon submission if:

- Required document is not submitted
- Wrong template is used for required document
- Proposal or CV document exceeds page limit

Important Points on Submission

| IGMS Section | Required Document for Upload |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CS-IRG, OF-IRG, HSRG, CS-IRG-NIG, OF-YIRG, HSR-NIG, CTGICT, CTGIIT | <ol style="list-style-type: none"> Research Proposal <ul style="list-style-type: none"> Annex B and Annex C for Resubmission Annex D for Renewal CV of PI CV of Co-Investigator(s) CV of Collaborator(s) Ethics Approvals (if any) Team Member Signatories & Other Support details (including Annex A on Scientific Abstracts of Listed Grants) <p><i>Additional for CS-IRG-NIG, OF-YIRG & HSR-NIG:</i></p> <ol style="list-style-type: none"> CV of Mentor <p><i>Additional for CTGICT:</i></p> <ol style="list-style-type: none"> Industry Research Collaboration Agreement <p><i>Additional for CTGIIT:</i></p> <ol style="list-style-type: none"> Letter of Support of HOD Letter of Support of HI Industry Research Collaboration Agreement/ Letter of Support (if any) |
| STaR, CSA-SI, CSA-INV, TA, CIDA | <ol style="list-style-type: none"> Research Proposal <ul style="list-style-type: none"> Annex B and Annex C for Resubmission Annex D for Renewal CV of PI CV of Co-Investigator(s) CV of Collaborator(s) Ethics Approvals (if any) Team Member Signatories & Other Support details (including Annex A on Scientific Abstracts of Listed Grants) <p><i>Additional for TA, CSA-INV and CIDA:</i></p> <ol style="list-style-type: none"> CV of Mentor Letter of Support of Mentor |
| CS/CISSP | <ol style="list-style-type: none"> Research Proposal CV of Applicant |

| IGMS Section | Required Document for Upload |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NMRC Research Training Fellowship | <ol style="list-style-type: none"> Research Proposal CV of Applicant Summary of Mentor(s) and Supervisor(s) CV of Mentor and Supervisor Letter of Support of Mentor and Supervisor Ethics Approvals (if any) Signatories & Other Support details (including Scientific Abstracts of Listed Grants) Course information and fee structure of formal research programmes Letter of acceptance from university/place of attachment Budget clearance from HR/Finance Letter of appointment/employment contract and information on your remuneration package Letter of Support of HOD [For Residents] Letters of support from PD, RAC and JCST |
| OF-LCG | <p><u>Letter of Intent</u></p> <ol style="list-style-type: none"> Summary Details Research Proposal CVs of Corresponding and Theme PIs Peer Reviewed Funding Received as PI in the Past 5 years Top 10 Publications of the Leadership Team in the Last 10 years Annexes <ul style="list-style-type: none"> Annexes A and B for Renewal Annexes C and D for Resubmission Annexes G and H Declaration and Signatories by Theme PIs <p><u>Full Proposal</u></p> <ol style="list-style-type: none"> Summary Details Research Proposal CVs of Corresponding PI, Theme PIs, Co-Investigator(s) and Collaborator(s) Industrial Parties' Contributions Expected Outcomes Annexes <ul style="list-style-type: none"> Annexes A and B for Renewal Annexes C and D for Resubmission Annexes E to H Industrial Parties' Contributions Declaration and Signatories |

General Q & A