

Nov 2016 Grant Call Roadshow

4 & 6 October 2016

Agenda

- **Grant Calls for Nov 2016:**
 - Clinician Scientist Individual Research Grant (CS-IRG)/ Subcategory CS-IRG-New Investigator Grant
 - Open Fund Individual Research Grant (OF-IRG)/ Subcategory Open Fund Young Individual Research Grant (OF-YIRG)
 - Talent Development- Human Capital Awards
- **National Health Innovation Centre grants**
- **Sharing by MOHH on Business Research Analytics Insights Network (BRAIN) platform**

**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 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

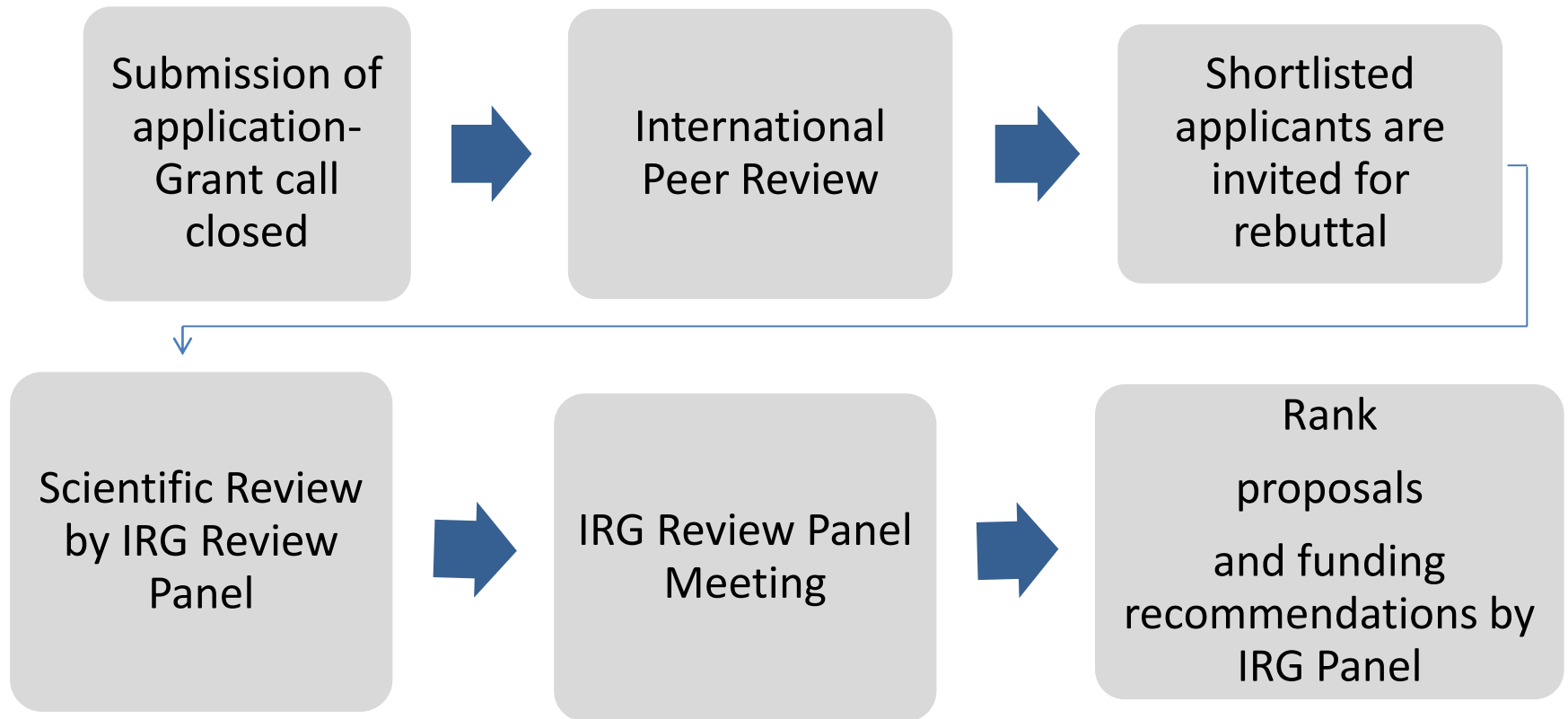
- Quality of the science
- Capability of the research performers to conduct the research
- Objectives of the research program in context of HBMS goals*

**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



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 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.

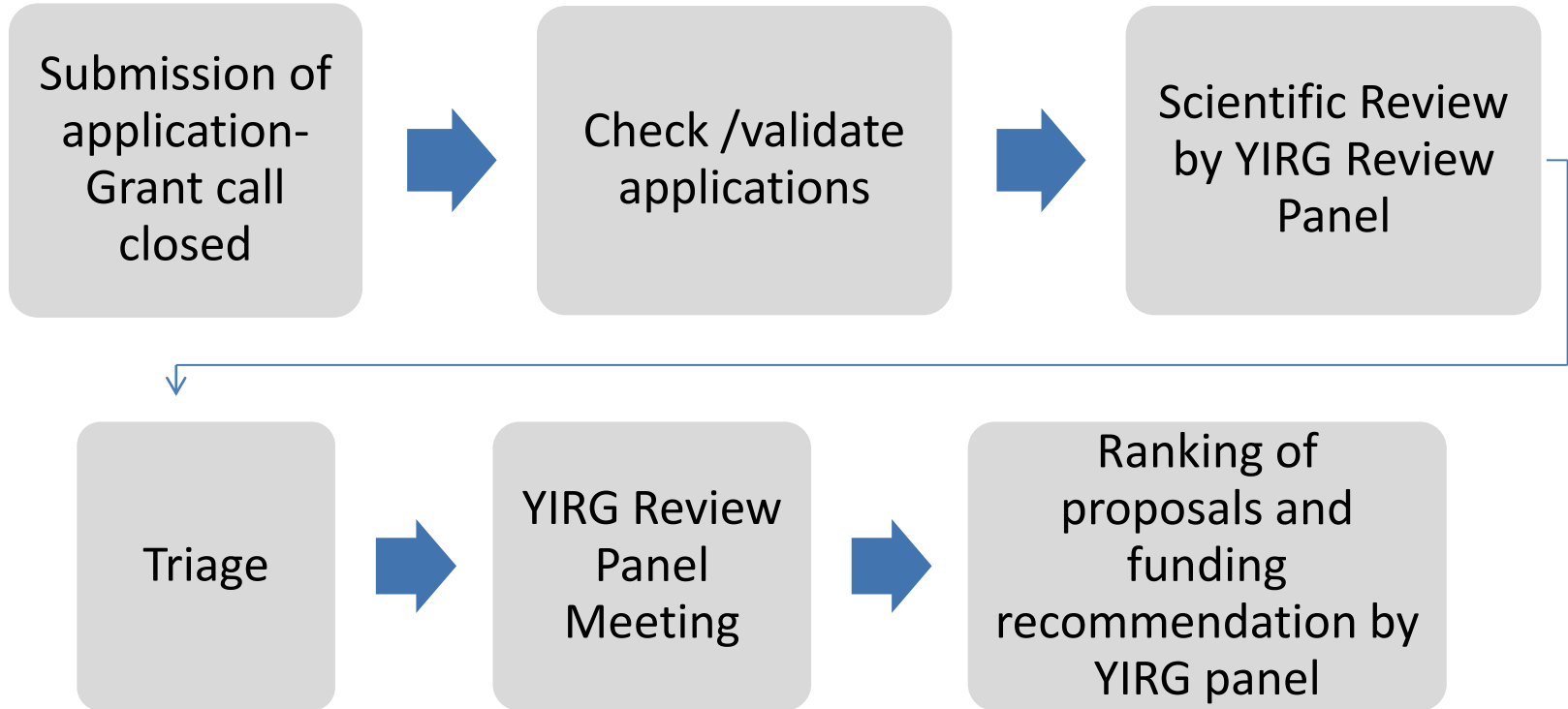
Additional Eligibility Criteria for Young IRG (I)

- 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 IRGs will not be eligible for OF-YIRG.
- d) Applicant should not have held any prior OF-YIRG award.

Additional Eligibility Criteria for Young IRG (II)

- 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



Clinician Scientist-Individual Research Grant (CS-IRG)

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.

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 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 New Investigator Grant
(CS-IRG-NIG)**

Subcategory CS-IRG-NIG (1)

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 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.**

- (iii) 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	<p><u>Two stage review process:</u></p> <ol style="list-style-type: none"> 1. International peer review 2. Local Review Panel (LRP) 	<p><u>Evaluation by:</u></p> <ol style="list-style-type: none"> 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

Submission Mode and Deadline

- It is **mandatory** for **all applications** to be submitted **online via nGager** by **1 December 2016, 5pm**
- nGager is compatible to **Internet Explorer** or **Mozilla Firefox** only
- 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.

Talent Development

Human Capital Awards

Agenda

- Types of Programmes
- Objective of Award
- Funding Quantum
- Grant Call Frequency
- Eligibility Criteria
- Review Process
- Assessment Criteria

Human Capital Awards

Types of Programmes

- Singapore Translational Research (STaR) Investigator Award
- Clinician Scientist Award (CSA)
- Transition Award (TA)

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

- Total funding quantum of up to **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)
 - Additional 20% indirect costs

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)^.
- 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 an exceptional and case-by-case basis*.
- iv. Non-medically trained PhD applicants conducting laboratory based research are not eligible.
- v. Upon award, applicant must:
 - Hold 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;
 - Hold a regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school;
 - Agree to fulfill 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);
- vi. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

* 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.

^ Exceptions apply to CSes who are existing holders of NMRC Human Capital Awards.

Clinicians with recognised specialty training are:

a. Clinicians who have full, conditional or temporary registration with SMC; 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 with 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.

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:
 - INV
 - SI

Funding Quantum

- PI's salary support according to NMRC annual salary cap
- Grant support of up to:
 - **\$675k over 3 years** (INV category)
 - **\$1.75mil over 5 years** (SI category)
- With additional 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)^.
- 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 an exception on a case-by-case basis*.
- 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 research grant, equivalent to an Individual Research Grant (IRG)-level grant.
- v. Upon award, applicant must:
 - Hold 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;
 - Hold a regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school;
 - Be a Singapore citizen or Permanent Resident.
- vi. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

** 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.*

^ Exceptions apply to CSes who are existing holders of NMRC Human Capital Awards.

Clinicians with recognised specialty training are:

a. Clinicians who have full, conditional or temporary registration with SMC; 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.

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 clinicians** 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

- PI's salary support according to NMRC annual salary cap
- Grant support of up to **S\$375k over 3 years**
- Additional 20% indirect costs

Grant Call Frequency

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

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)[^].
- ii. Applicants must have received in-depth scientific training such as obtained in a PhD programme, Masters programme, or at least 2 years of post-MBBS/MD 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 an exception on a case-by-case basis*.
- 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 grants**.
- vi. Upon award, applicant must:
 - Hold 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;
 - Hold a regular-rank faculty/academic appointment in one of the academic medical centres (AMC) or medical school;
 - Be a Singapore citizen or Permanent Resident.
- vii. All research must be conducted in Singapore at a public research institute, hospital/centre or medical school.

**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.*

***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.*

[^] *Exceptions apply to CSes who are existing holders of NMRC Human Capital Awards.*

Clinicians with recognised specialty training are:

a. Clinicians who have full, conditional or temporary registration with SMC; 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.

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 months after the application closes.

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.

Submission Mode and Deadline

- It is **mandatory** for **all applications** to be submitted **online** via nGager by **1 December 2016, 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.

**Talent Development
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.

Updates

- The MOH Healthcare Research Scholarship (PhD) is now merged with the NMRC Research Training Fellowship.
 - Applicants who intend to apply for the MOH Healthcare Research Scholarship (PhD) are to submit their applications under the NMRC Research Training Fellowship.
- The changes to the eligibility criteria are as follows:
 - Inclusion of a **Local Research Attachment** category.
 - Research attachment applications that encourage collaborations between local institutions, or local institutions with overseas institutions will be prioritised.
 - **Health science professionals** who fall under the list of professions stated (on the website) may apply to the programme if they are **existing PhD holders** or intending to apply for **training leading to PhD** degrees.

Notes

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