
NATIONAL HEALTH INNOVATION CENTRE SINGAPORE

An Innovation & Enterprise Office (IEO)
for Public Healthcare Institutions



Consortium for Clinical Research and Innovation Singapore (CRIS)

MOH HOLDINGS

100% holding

CRIS
Consortium for Clinical Research and Innovation Singapore

Business units



Spearheading and developing core capabilities, infrastructure and scientific leadership for **clinical research** in Singapore

To become a global leader in the translation of **cardiovascular research** for better health and economic outcomes.

Cohesive and focused national-level **cancer research and translational programme** for value based treatment of cancers



Coordinate a whole-of-government effort to implement Singapore's **National Precision Medicine** programme

Drive impactful health and economic outcomes for Singapore by catalysing **innovation and enterprise** endeavours

Provide quality manufacturing of **cellular-based therapeutics** and develop **cell therapy** services to industry and patients

We provide the public healthcare institutions of Singapore with **translational funding** and **strategic guidance** to accelerate healthcare innovation and commercialisation.

OUR VISION

Singapore as a leading hub for **health innovation & enterprise** in Asia

OUR MISSION

Drive impactful health and economic outcomes for Singapore by **catalyzing** innovation and enterprise endeavours in the healthcare research community through public and industry **partnerships**

Supporting Clinical-led Innovation to Accelerate Translation, Commercialisation & Healthcare Delivery

Restricted, Sensitive (Normal)



IDEATION

DEVELOPMENT

COMMERCIALISATION

ADOPTION

Innovation to Protect (I2P)

Funds the patent expenses of innovation

Joint MedTech Grant-JMT

Support exploratory efforts for early stage innovations



Innovation to Develop (I2D)

Develops commercially attractive innovation

Innovation to Startup (I2START)

Brings together resources to support start-ups at Institutions



Innovation to Industry (I2I)

Supports co-development with an industry partner

Innovation to Adopt (I2Adopt)

Supports commercially viable innovation for implementation, adoption

Clinical Innovation and Adoption Initiative



Partnership

Partnership between healthcare institutions, industry, policy makers and accreditation boards to strengthen support from early stages of development

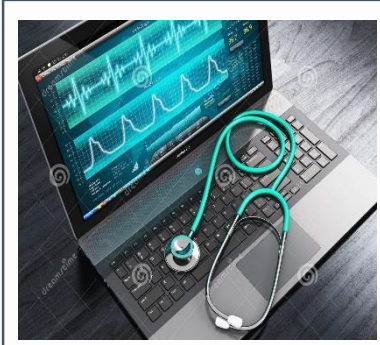


Talent Development

Guide clinicians on commercialisation strategies, support in nurturing of healthtech entrepreneurship



TECHNOLOGY AREAS FUNDED

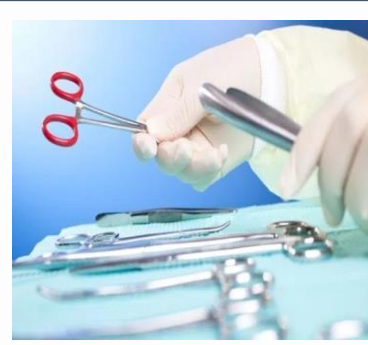


DIAGNOSTICS

Diagnosis performed with the aid of AI based on imaging or sensor reading.

Biomarker based IVDs or CDx for clinical diagnostic and precision medicine applications.

MedTech



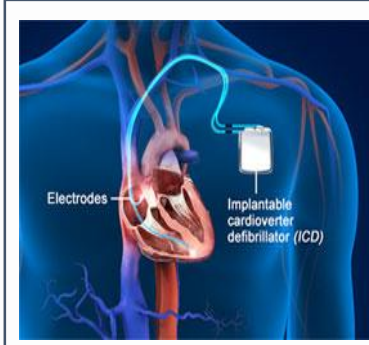
SURGERY TOOL

Use during a procedure, device that are largely mechanical.



HEALTH IT

Apps, VR/AR, Cloud, without a diagnosis.



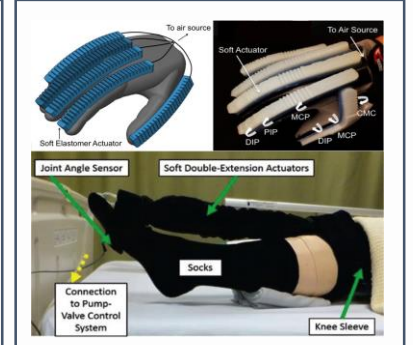
IMPLANT

Implantable devices



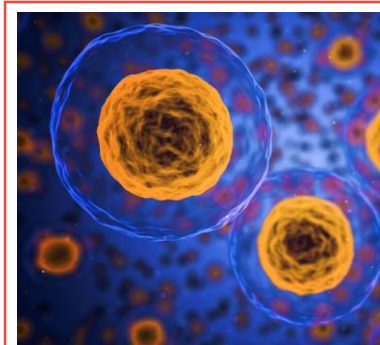
SENSORISED FEEDBACK SYSTEM

Sensor providing close loop feedback to users, semi or fully automated.



THERAPY

Therapeutic Tools



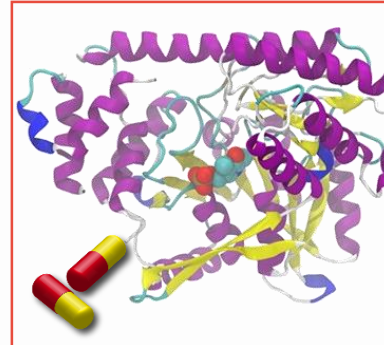
DRUG DELIVERY

Formulations, excipients and adjuvants that improve drug release, distribution and absorption profile.



SMALL MOLECULES

Small molecule drug candidates with specific druggable targets.



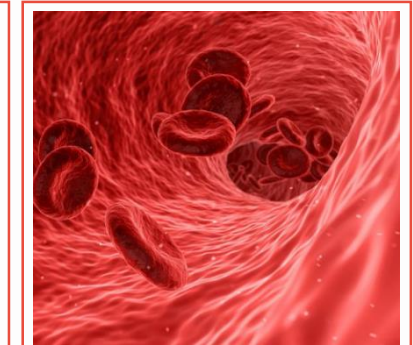
PEPTIDES/PROTEINS

Peptide and protein-based therapeutics targeting specific receptors or biomolecular interactions.



ANTIBODY

Antibody-based (mABs) therapeutics targeting immune/inflammatory systems or tumour surface antigens.



CELL THERAPY

Approaches in autologous and allogeneic stem cell transplants or adoptive cell transplants (CAR-T).

BioPharma and Stem Cell Therapy

Innovation to Protect Grant (I2P)

Funding patent expenses for inventions.

Eligibility Criteria

- Applicant must be Head / Deputy Director / Director of the healthcare cluster designated office
- Applicant applies on behalf of inventors that hold a primary appointment at:
 - local public hospital or
 - public health institution or
 - national specialty centre

Healthcare Cluster Designated Office

NHG Group Research

NUHS Research Office

SingHealth Office of Intellectual Property (SHIP)

Funding Criteria

- Strong patentability
- Technology development plan
- Commercialisation strategy



Open

Throughout the year



Up to \$40,000

Depending on:

- Stage of patent protection
- Ownership ratio



6 – 12 months

Depending on stage of patent protection



Submission

via designated office of healthcare cluster

NHIC does not take ownership of IP, nor recover expenses/take revenue share

Innovation to Develop Grant (I2D)

Funding for development of a healthcare innovation to a commercialisable endpoint.

Eligibility Criteria

Principal Investigator must hold primary appointment in a

- local public hospital or
- public health institution or
- national specialty centre or
- academic medical school

and be salaried by the institution



Funding Criteria

- Healthcare impact
- Commercial potential
- Strong preliminary data
- Technology development plan



3

Grant calls per year
1st Friday of:
Feb, Jun, Oct
(institutional dates may vary)



\$300,000

(inclusive of max.
30% IRC)



12 months

(max. 6 months
extension)



Submission

via designated office
of healthcare cluster

NHIC does not take ownership of IP, nor recover expenses/take revenue share

Innovation to Industry Grant (I2I)

Co-development of healthcare innovation with an industry partner.

Eligibility Criteria

- Successfully completed I2D funded projects (or equivalent as deemed appropriate by NHIC)
- Co-development with an industry partner to license the technology.



Funding Criteria

- Healthcare impact
- Commercial potential
- Clinical feasibility data
- Binding agreement with an industry partner as a licensee



Open

Throughout the year

Application by Invitation only



\$300,000

Awarded to institutions
(inclusive of max. 30% IRC)



12 months

(max. 6 months extension)



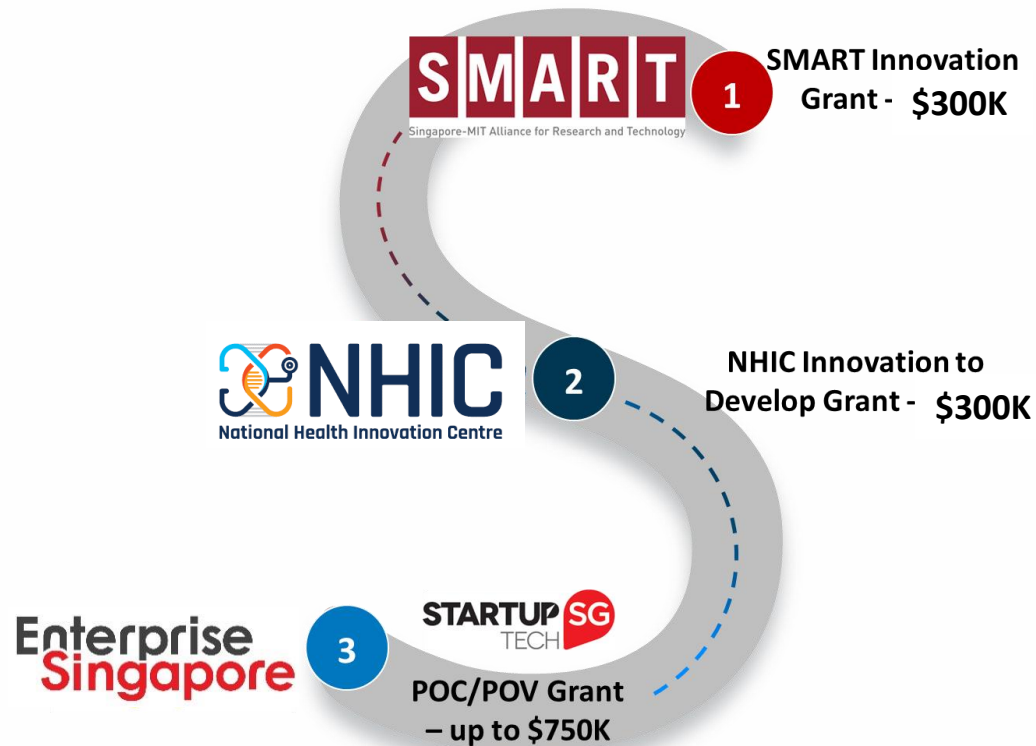
Submission

via designated office of healthcare cluster

NHIC does not take ownership of IP, nor recover expenses/take revenue share

Innovation to Startup (I2START)

A premium funding program targeted at HealthTech start-ups from Singapore public institutions.



The tripartite partnership between NHIC, SMART, and Enterprise Singapore strategically bring together funding and resources to support start-ups.

Eligibility Criteria

- Entry: TRL 3* and above
- Health Technologies in the following areas;
 - Clinical diagnostics
 - Medical device and products
 - Digital health
 - Life science tools, etc
- Team with the intent to start-up a company
- Team must consist of one Clinical PI and Technical PI from public institutions

Clinical PI must hold primary appointment in a

- local public hospital or public health institution or national specialty centre or academic medical school and be salaried by the institution



Letter of Intent

Submit LOI to I2Start Grant Secretariat at grant@nhic.cris.sg

Please visit www.nhic.sg to find out future submission dates.

I2Adopt Details



Aim:

- Support development of a **clinically significant** and **commercially viable** innovation.
- Accelerate commercialization, **eventual implementation and adoption** of the innovation to **impact and benefit** healthcare delivery and patient care



Eligibility:

- PI must hold a primary appointment in and be under the employment of a public healthcare institution, in Singapore.
- **Criteria** for project gearing toward clinical adoption:
 - ✓ **Commercial position** : Interest to trial for eventual implementation and adoption **cross cluster**. At least 2 clusters indicating interest to implement & adopt post-pilot (Letter of Interest)
 - ✓ **Approved/Registered product** (HSA, FDA or equivalent) or submitted/design freeze; ethics submission or approval (as applicable)
 - ✓ **Industry partner's commitment** to support pilot and implementation

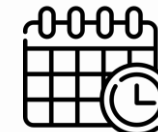


12 months, Up to 18 months



Up to \$1Mil[^]

[^]Quantum reviewed on a project by project basis



4 Sept 2023

Clinical Innovation and Adoption Initiative, I2Adopt

Grant call 1 (Nov 2022): Screening

- To detect early onset of disease indicators
- Enhance proactive screening in homes, hospitals, primary or community care settings

Grant Call 2 (closes 2 May 2023) : Diagnosis & Monitoring

- Cost effective tools to establish presence or absence of disease
- To monitor disease progression

Grant Call 3 (closes 4 Sept 2023) : Intervention

- Enabling technologies that improve clinical outcome, including preventive intervention, therapeutic interventions, etc.



National Research Foundation (NRF) Central Gap Fund (Central Gap)

A national-level platform to resource impactful and preferably collaborative projects to translate research outcomes into products, processes and/or services that generate economic and societal benefits for Singapore.

Eligible Entities

Local public hospitals, public health institutions and national specialty centres.

NHIC's Role

- NHIC is the designated Innovation and Enterprise Office (IEO) for public hospitals, public health institutions and national specialty centres.
- All Central Gap applications must be endorsed by NHIC in its capacity as IEO.

Funding Criteria

- Project scope
- Commercialisation potential
- Team composition
- Technical innovation
- Institutional support



Open

Throughout the year
Applications to be
batch processed



>\$300,000



24 months



Pre-engagement

with NHIC is required

More info please visit www.nrf.gov.sg/funding-grants/central-gap-fund

Private Sector and International Partnerships

Private Sector Corporate and Venture Partnerships

- ❖ Open Innovation/Collaboration
- ❖ Venture Building/Investments
- ❖ Talent Exchange and Development
- ❖ Knowledge sharing

International Partnerships

- ❖ Co-development/Collaboration
- ❖ Co-funding/Venture Investments
- ❖ Market Access
- ❖ Clinical Network











US




EU/UK






APAC




MENA




Talent Development

Helix Immersion Programme (HIP): To develop tri-competent talent with technical, clinical and business expertise.



Groom

founders/innovation leads with tri-competent expertise for biotech and medtech sectors

Trainee-Project Identification

Private sector partner and NHIC jointly identify trainee and project.

Immersion (12 months)

Commercial Immersion

Trainee instil commercialisation skills through the guidance of private partner.

Clinical + Tech Immersion

Trainee works with private sector partner, clinicians and NHIC to develop POC and commercialisation strategy.

Translation

Trainee works with private sector partner, clinicians, host institution, and NHIC to lead spin-off/licensing of project.

Salary support: 30% by private sector partner & 70% by Helix Immersion Programme by SGInnovate

Healthcare I&E Training

- Biodesign bootcamp
- Design thinking for healthcare innovation
- Business implementation for health and medtech
- Product development & QMS
- Business model innovation for healthcare innovations

NHIC Performance Dashboard

Key Performance Indicators

Since the start of operation in June 2014, NHIC has achieved these KPIs through our funding and facilitation of the healthcare clusters in Singapore.

As of 15 Dec 2022



No. of Licenses facilitated

63



Licensing revenues

S\$3.7M



Start-up companies

21



Private investment

S\$47M



Start-up valuation

S\$180M



Products launched

10



Market entries

34

Pre-seed/Seed



Innozign



Series A



Series B



NHIC supports your Innovation Journey

NHG: Dr Michael Ho
Michael.ho@nhic.cris.sg

Dr Chuah Yon Jin
Yonjin.chuah@nhic.cris.sg

SingHealth: Dr Tan Ee Lim
Eelim.tan@nhic.cris.sg

Dr Esther Lee
Esther.lee@nhic.cris.sg

NUHS: Dr Yeow Siang Lin
Sianglin.yeow@nhic.cris.sg

Ms Smitha Velayil Sunildeep
Smitha.velayil@nhic.cris.sg

For general enquiries, please email enquiry@nhic.cris.sg

Thank you

