## NATIONAL HEALTH INNOVATION CENTRE SINGAPORE

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



# PART OF THE MINISTRY OF HEALTH FAMILY MOH HOLDINGS











STCC
Singapore Translational
Cancer Consortium





## NATIONAL HEALTH INNOVATION CENTRE

We provide the publicly-funded clinical research sector 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** 

## **OUR VALUE PROPOSITION**







## **OUR VALUE PROPOSITION**





Protect intellectual property (IP), support develop, and move research innovations towards a commercial attractive endpoint



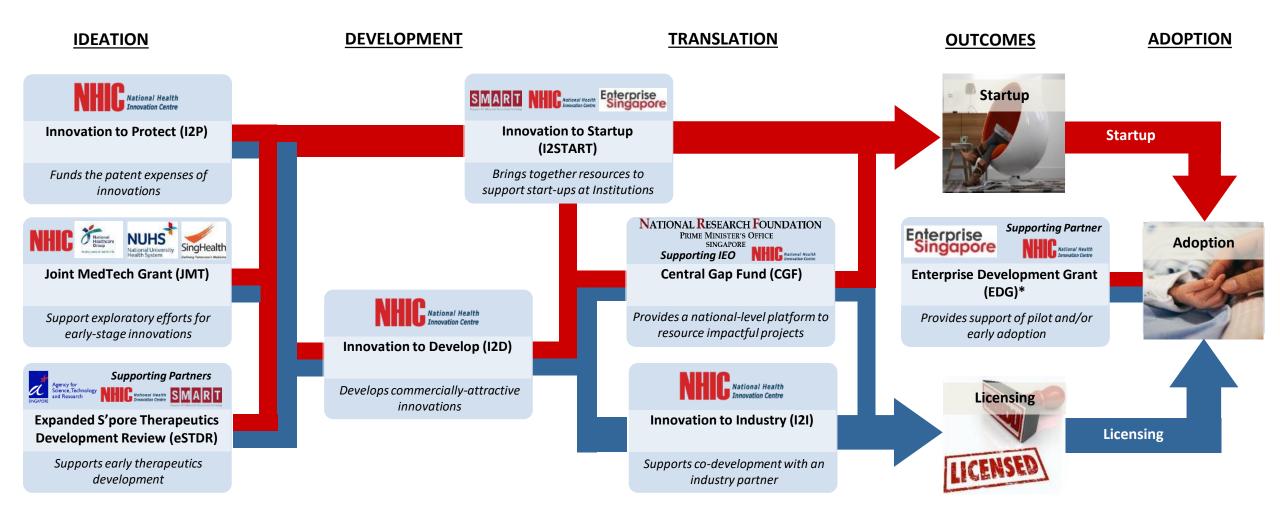
Scout and guide clinicians and research teams on commercialisation strategies, educate and raise awareness on IP commercialisation



Facilitate partnerships
between healthcare
institutions and industry,
work with policy makers
/accreditation boards to
facilitate translation into
health & socio-economic
outcomes

# Strategic Pathway to Accelerate Healthcare Innovations





# Innovation to Protect (I2P) Patent Support Scheme



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



Throughout the year



Up to \$40,000

Depending on:

- Stage of patent protection
- Ownership ratio



12 months



**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 <u>or</u>
- public health institution <u>or</u>
- national specialty centre <u>or</u>
- 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

1<sup>st</sup> Friday of:

Apr, Aug, Dec

(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

# **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



Throughout the year Applications to be batch processed





>\$250,000 | 24 months | Pre-engagement

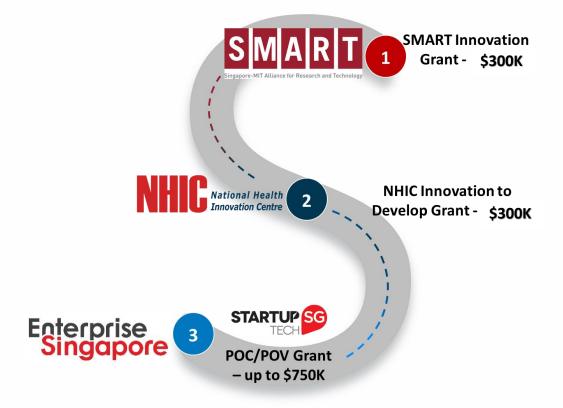
with NHIC is required

More info please visit <a href="https://www.nrf.gov.sg/funding-grants/central-gap-fund">www.nrf.gov.sg/funding-grants/central-gap-fund</a>

# 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 <u>or</u> public health institution <u>or</u>
national specialty centre <u>or</u> academic medical school
and be salaried by the institution





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

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## **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

BioPharma and Stem Cell Therapy



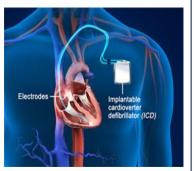
### **SURGERY TOOL**

Use during a procedure, device that are largely mechanical.



## **HEALTH IT**

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



### **IMPLANT**

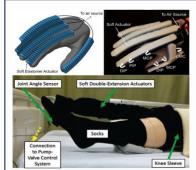
Implantable devices



## SENSORISED FEEDBACK

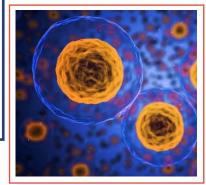
**SYSTEM** 

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



#### **THERAPY**

Therapeutic Tools



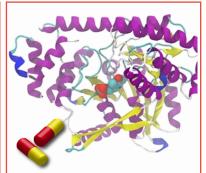
#### **DRUG DELIVERY**

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



#### **SMALL MOLECULES**

Small molecule drug candidates with specific druggable targets.



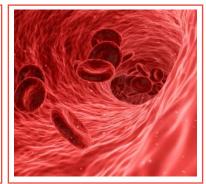
#### PEPTIDES/PROTEINS

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



#### **ANTIBODY**

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

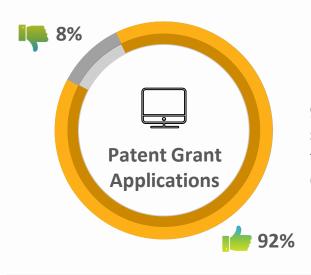


#### **CELL THERAPY**

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

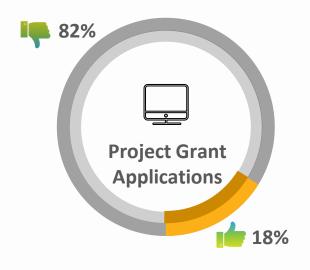
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#### **Innovation to Protect Grant**

92% of the I2P applications have successfully obtained approval for funding for patenting expenses.



## **Innovation to Develop Grant**

The success rate for I2D project grant is about 18%. About 65% are in MedTech, and 35% are in BioPharma areas.

## **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 31st March 2021



Licenses facilitated

46



S\$22M



Licensing revenues

S\$2.4M



Start-up valuation

S\$74M



Start-up companies

**15** 



**Products** launched

6



Innovators participated

620



Market entries

**15** 

## NHIC DASHBOARD

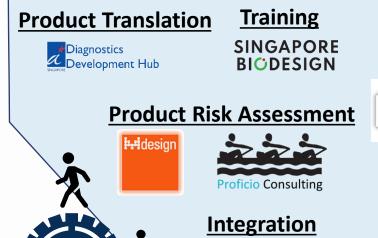
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## **Our Value Adds and Support**





# Development



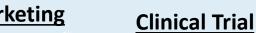
## Regulatory Access-2-Healthcare



















## **Business Model**





## Commercialisation







X-NODE ACTUATOR







**Needs Validation** 

**Funding Pathway** 

**Mkt Assessment** 

**IP Assessment** 

**Innovation** 

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# **NHIC** supports your Innovation Journey

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Thank you

