

Why CRIS and SCRI in Singapore?

CRGo World Conference &
International Clinical Trial Center Network
Symposium 2023

29 Nov 2023 (Wed)

TIMELINE

TRANSITION OF SCRI TO CRIS



1996
CTERU WAS ESTABLISHED

2008
SCRI WAS ESTABLISHED

2016
NHIC WAS INCORPORATED
INTO SCRI

2020
STCC, ACTRIS AND PRECISE
WERE INCORPORATED
INTO SCRI

2020
NAME CHANGE FROM
SCRI TO CRIS

2023
CADENCE WAS
INCORPORATED
INTO CRIS

Clinical Trial Operational Support

Research Funding Support for Innovation

Support for specialized therapeutic area of expertise

National Clinical Research and Translation Programmes



CRIS

- Enables the programme to function of themselves
- Bring synergies so that we can achieve more than the sum of our parts

Diverging
Converging

Consortium for Clinical Research and Innovation Singapore (CRIS)

Vision

To nurture and build for Singapore, cutting edge capabilities and innovation in clinical research and translation



Programme Horizontals



Clinical Trials



Health Economics & Outcomes Research



Industry Engagement

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

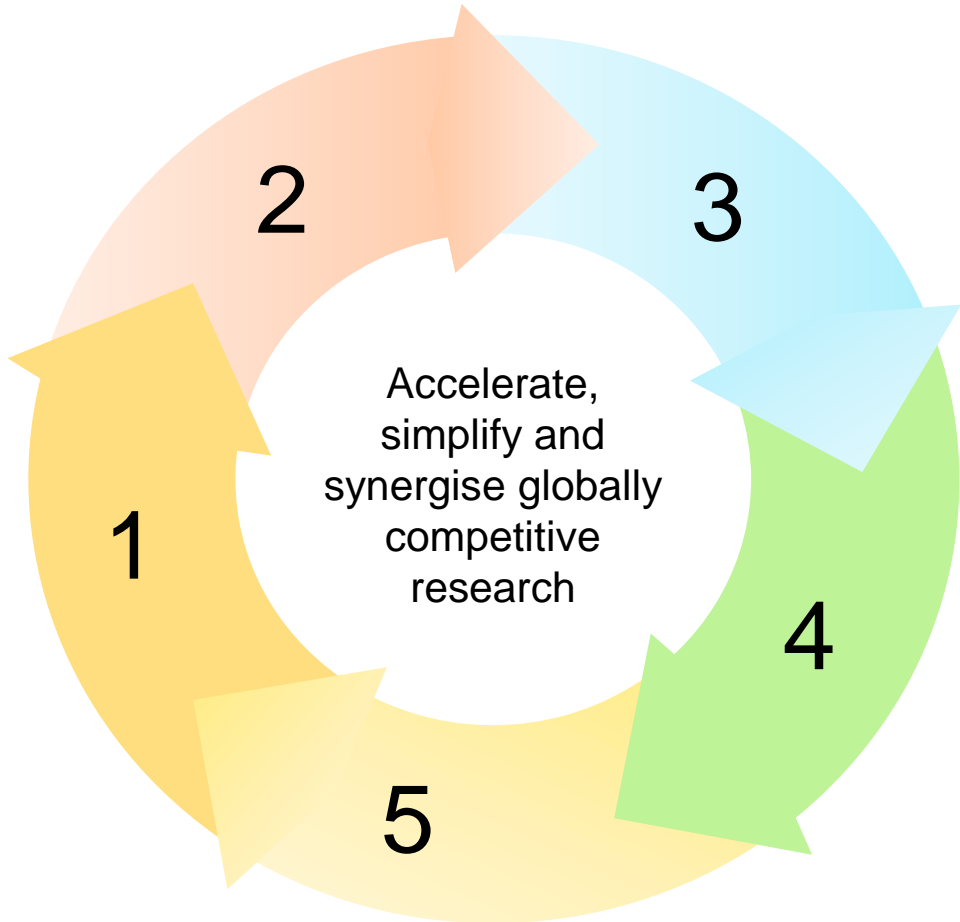


Drive impactful health and economic outcomes for Singapore by catalysing **innovation and enterprise** endeavours

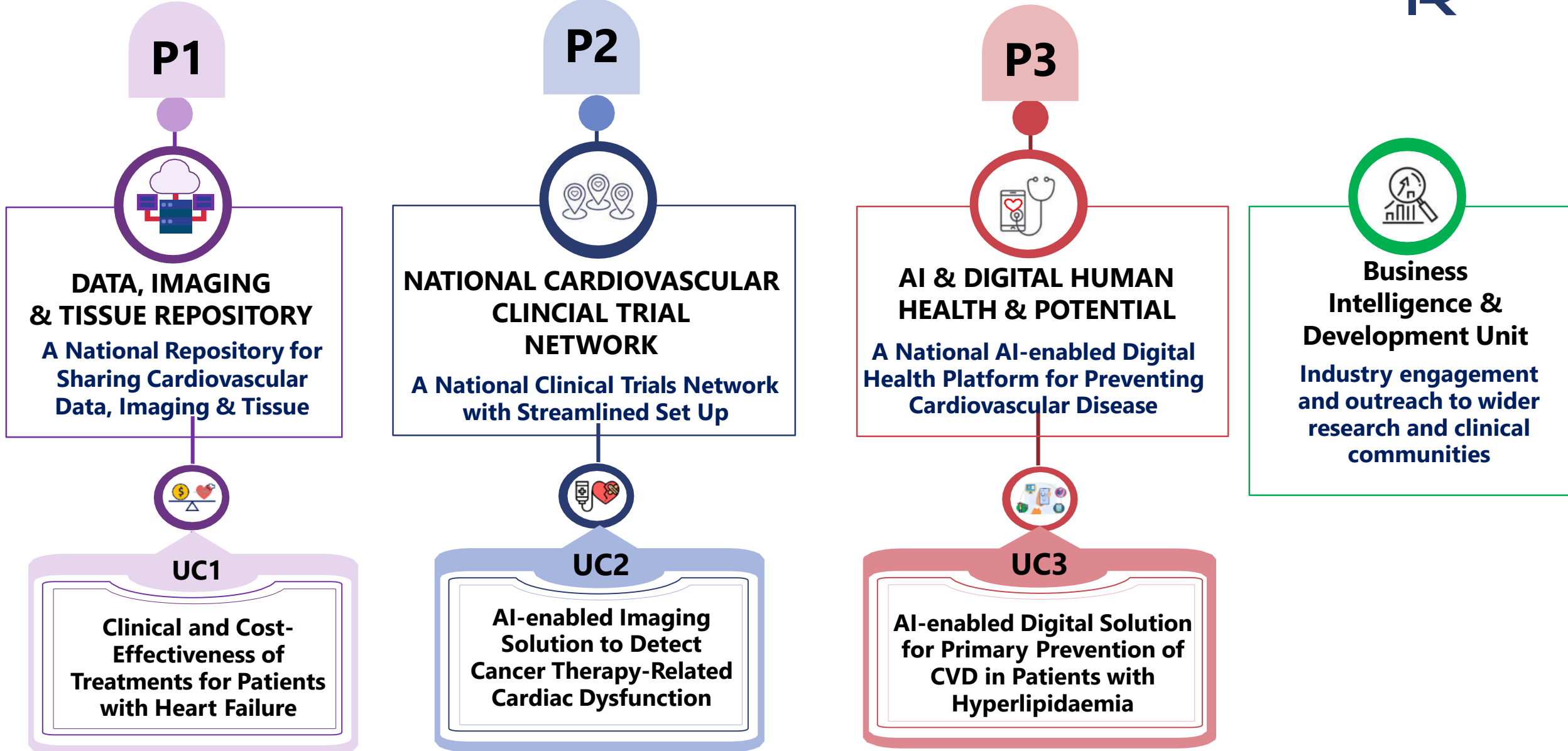
Provide quality manufacturing of **cellular-based therapeutics** and develop **cell therapy** services to industry and patients

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

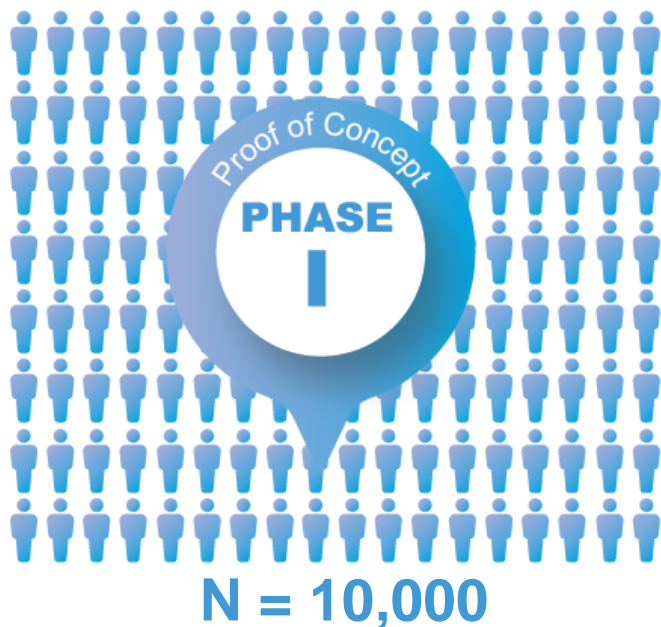
With five integrated platforms, STCC is a “***one-stop shop***” for academic and industry partners



- | | | |
|---|--|--|
| 1 | Cancer Clinical Trials & Investigational Medicine Units | Streamlined clinical trial start-up framework that facilitates PI/KOL engagement and a single agreement contract process |
| 2 | Cancer Databases & Tissue Banks | Robust, secure and harmonised central catalogue for cancer samples & associated clinical research data |
| 3 | Translational Research Integration & Support | A translational cancer research framework and national catalogues of cutting-edge molecular assays and tumour models |
| 4 | Business Intelligence & Development | Facilitate partnerships and collaborations with government, industry and academia |
| 5 | Impact & Population Health | Facilitates high impact novel cancer treatment approaches and evaluate measures to improve population health |



The Singapore National Precision Medicine Strategy. Nature Genetics. Jan 2023



2017 - 2021

- Whole genome sequences of 10,000 Singaporeans (SG10K_Health)
- Initial estimates of genetic disease burden in Singapore
- Prepare the community for large-scale genomics



Ongoing

- PRECISE-SG100K longitudinal population cohort (100,000 Singaporeans)
- Establish data linkages for Clinical Outcomes (TRUST)
- Pilot studies to establish clinical workflows for genomics



Ideation and Planning

- Infrastructure for affordable genetic testing
- Integrate with clinical test orders and electronic medical records
- Work with primary care on genome-guided & validated interventions/treatments

To identify environmental, lifestyle, and genetic factors that cause heart disease, cancer and other chronic diseases in Singapore



Recruitment

Representative sampling of Singaporean population



Consent

Health related research, linkage to health records, working with industry



Questionnaires

Demographic, lifestyle, environment, nutrition, cognition, etc.



Physical Measurements

Cardiovascular, respiratory, visual, adiposity



Biochemical Laboratory Assays

Serum creatinine, glucose & HbA1c, blood lipids



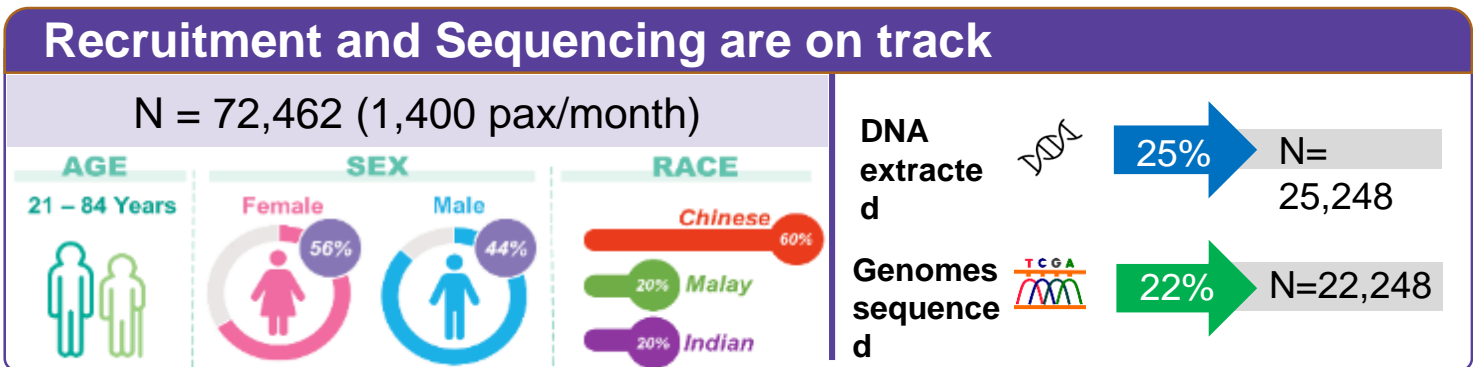
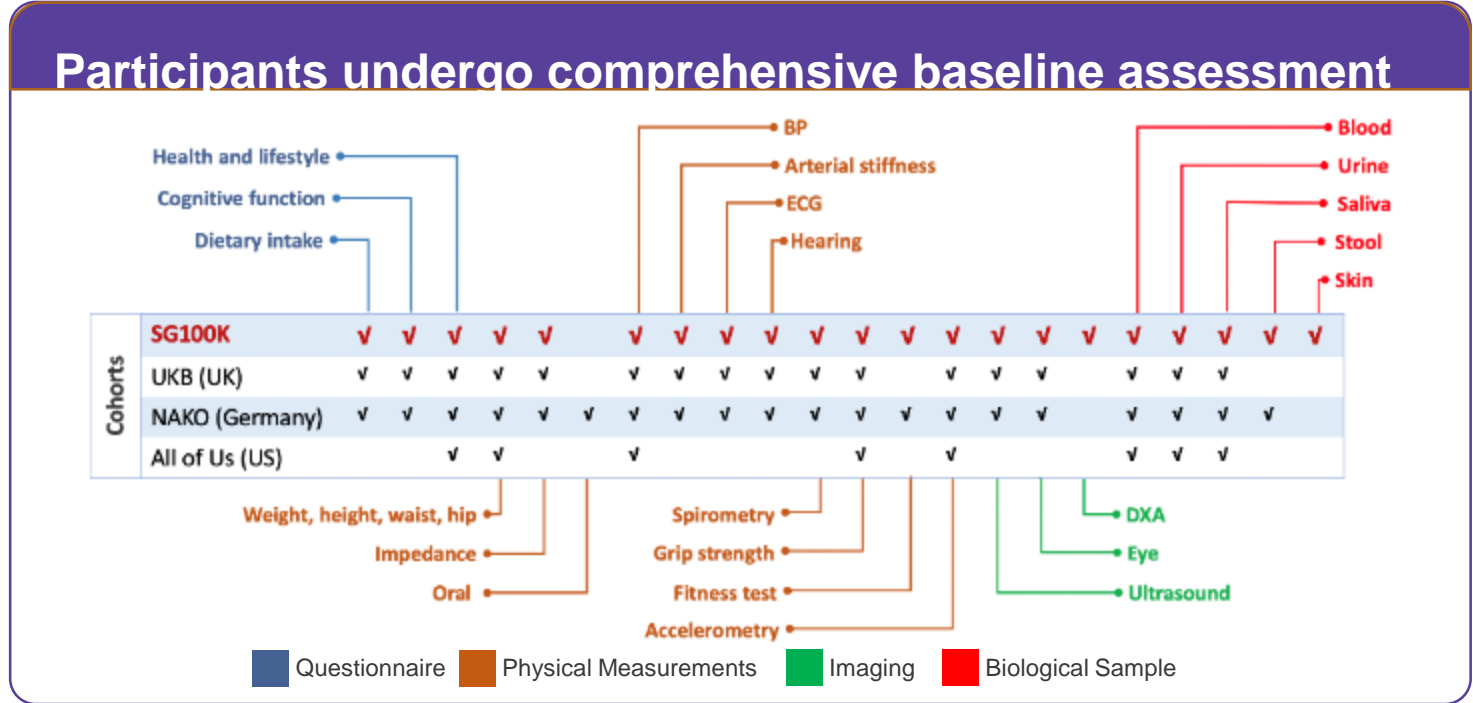
Imaging

Bone density, body fat, carotid imaging, retina



Biological Samples

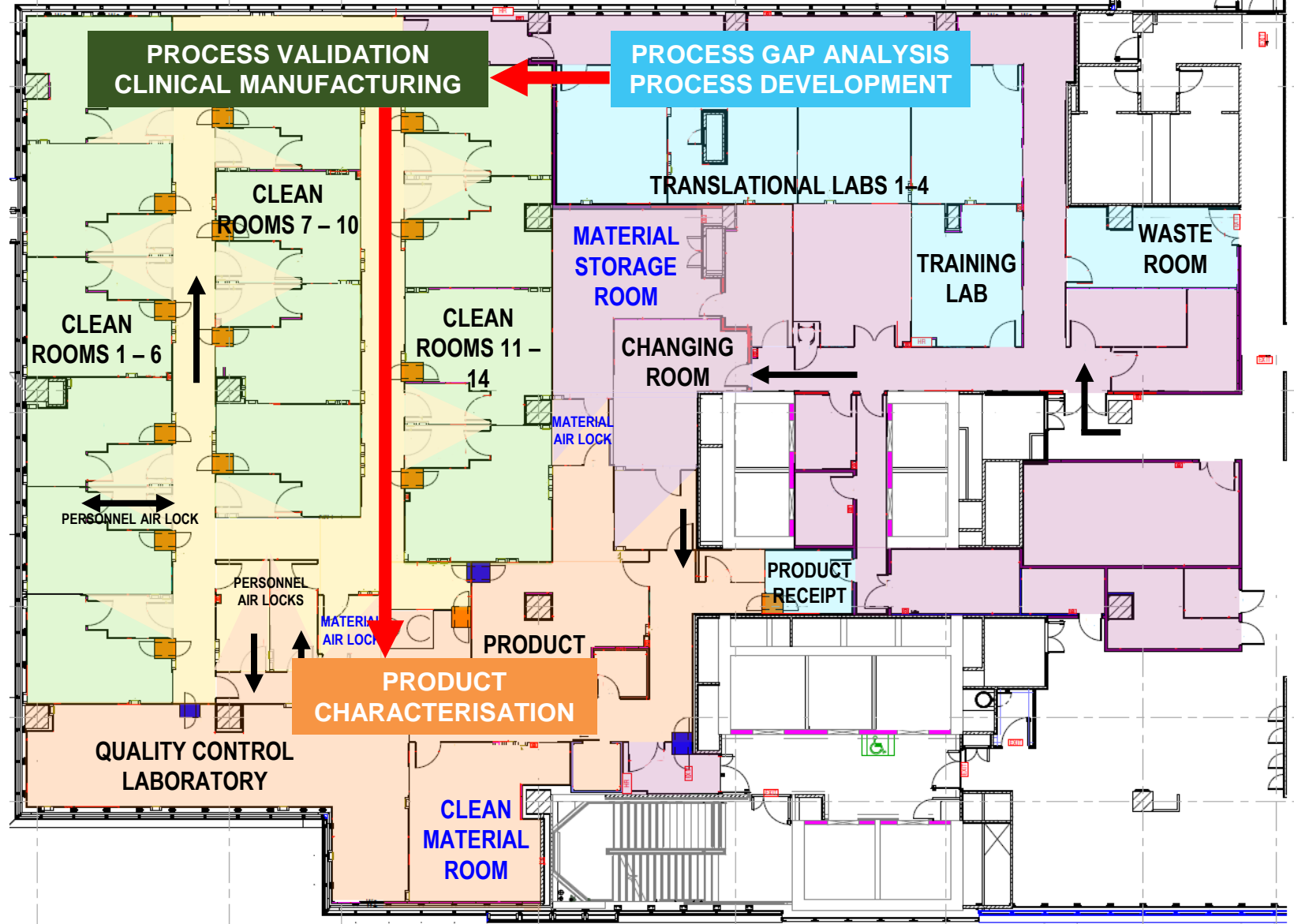
Blood, urine, stool, skin tapes



Project SG100K: DNA of 100,000 Singaporeans to be mapped to identify new ways to prevent diseases | The Straits Times

Advanced Cell Therapy and Research Institute, Singapore

The 2,000sqm facility comprises 14 GMP-compliant clean suites, four translational laboratories and one quality control laboratory – the largest national facility of its kind which will support hospital services, academic institutions for research, and biotech start-ups here.



Process Movement →

Supporting Healthcare Needs, Research Translation, and Industry

Healthcare



Academic & Research



Industry



Powering the next generation of Healthcare Innovation
Supporting **Clinical Innovations** with **Healthcare** and **Commercial/economic outcomes**



Clinical Advancement and Development for Research, Entrepreneurship and Enterprise (CADRE²):
Project Co-development, Investment, Mentorship and Talent Development

Innovation & Development Grants, Patent and Project Management Support



NHIC supports early stage development of medtech/biotech projects – IP creation/licensing/spin-offs – RIE

Clinical Adoption Initiative – **MOH/MHI**



Co-create/ build **New Investable Ventures** and/or **Project Co-development**



Groom **Tri-Competent** Founders/Senior Innovation Leads (clinical, technical, commercial) for biotech/ medtech sectors

Talent Development (Helix Immersion Programme) – 12 months immersion
Co-payment salary support: 30% by private sector partner; 70% by SGInnovate

Singapore Clinical Research Institute (SCRI) Missions



National Coordination

Provides strategic direction and leads national agenda



Research Support

Provides agile, targeted support for research needs



SCRI Research Coordination Strategic Focus



Local Infrastructure
& Process
Enhancement



Master Clinical
Trials Agreement



National Clinical
Trials Portal



Clinical Research
Innovation



Health Economics &
Outcomes Research
(HEOR)



Decentralised
Clinical Trials



Outreach and
Ecosystem
Engagement



Clinical Research
Networks



Clinical Research
Talent Development

A SEAMLESS, PERSONALISED NATIONAL PORTAL FOR CLINICAL TRIAL INFORMATION

SCRI National Clinical Trials Portal (CTSG)

Online Platform “clinicaltrials.sg”



**For Patients/
Caregivers**

- List of Clinical Trials Conducted in Singapore
- Bios/CVs of Singapore Clinicians interested to conduct Clinical Trials
- List of Clinical Trial Sites in Singapore



**For Clinical
Investigators**

- Bio Repositories Catalogue
- List of Clinical Trial infrastructure & support services
- Information on how to place a Clinical Trial in Singapore
- Links to IRBs and Regulatory Body



**For Trial
Sponsors**

SCRI Clinical Trials CTSG Front Office

- Manned by 1-2 dedicated personnel
- **Concierge service** to meet companies and provide relevant information regarding the clinical trials ecosystem in Singapore
- **Introduce and/or direct potential sponsors** to clinical trial units, commercial CROs and relevant government agencies to facilitate placement of clinical trials in Singapore
- **Accept and channel feedback** from patients, clinicians and companies to the appropriate groups for information and action

CLINICAL TRIAL CENTRES IN SINGAPORE



Ng Teng Fong Hospital



Khoo Teck Puat Hospital

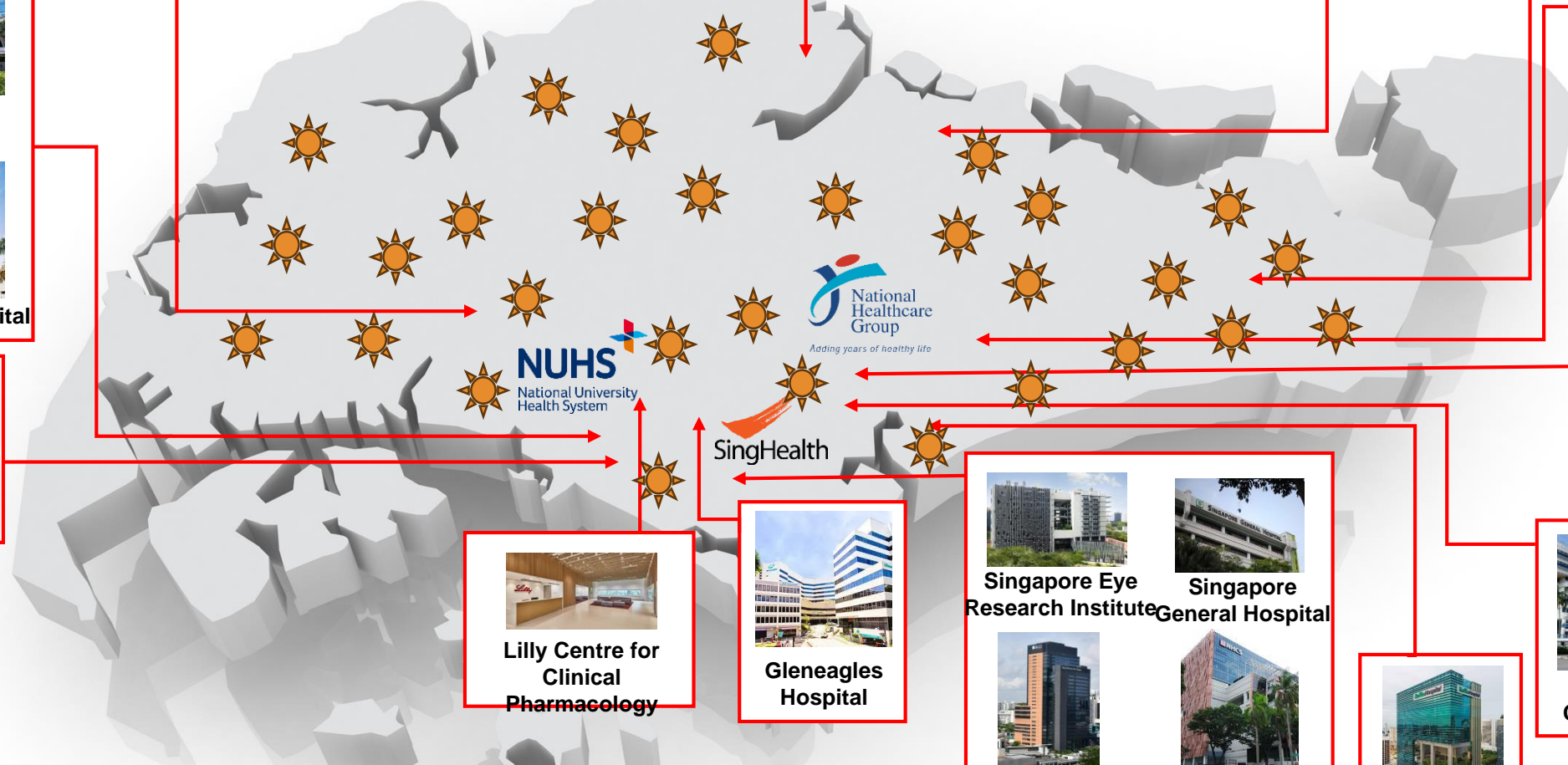


Sengkang General Hospital



Changi General Hospital

DECENTRALISED CLINICAL TRIAL (DCT) MODEL



SCRI Supported Clinical Research Networks

Clinical Trial Networks

Asia-Pacific Hepatocellular Carcinoma Trials Group (AHCC)




Pierce Chow

Asian Thoracic Oncology Research Group (ATORG)




Daniel Tan

Asian Myeloma Network (AMN)





Chng Wee Joo

GyneCologic Cancer Group Singapore (GCGS)




David Tan

ADVANCing Clinical Evidence in Infectious Diseases (ADVANCE-ID)





Clinical Registry Networks

Deciphering Diversities: Renal Asian Genetics Network (DRaGON)




Ng Kar Hui

Pan-Asian Resuscitation Outcomes Study Network (PAROS)




Marcus Ong

Pediatric Acute & Critical Care Medicine Asian Network (PACCMAN)




Lee Jan Hau

Pediatric Inflammatory Bowel Disease Research Network (PIBD)



Marion Aw

“SCRI Academy is set up to work with Singapore Healthcare clusters and various partners to ensure that there is adequate local talent to facilitate and conduct clinical trials in Singapore and the region.”



Clinical Investigators

Clinical Research Associates

Regulatory Specialists

Clinical Research Coordinators

Biostatisticians

Data Managers

Clinical Research Nurses

Health Economists

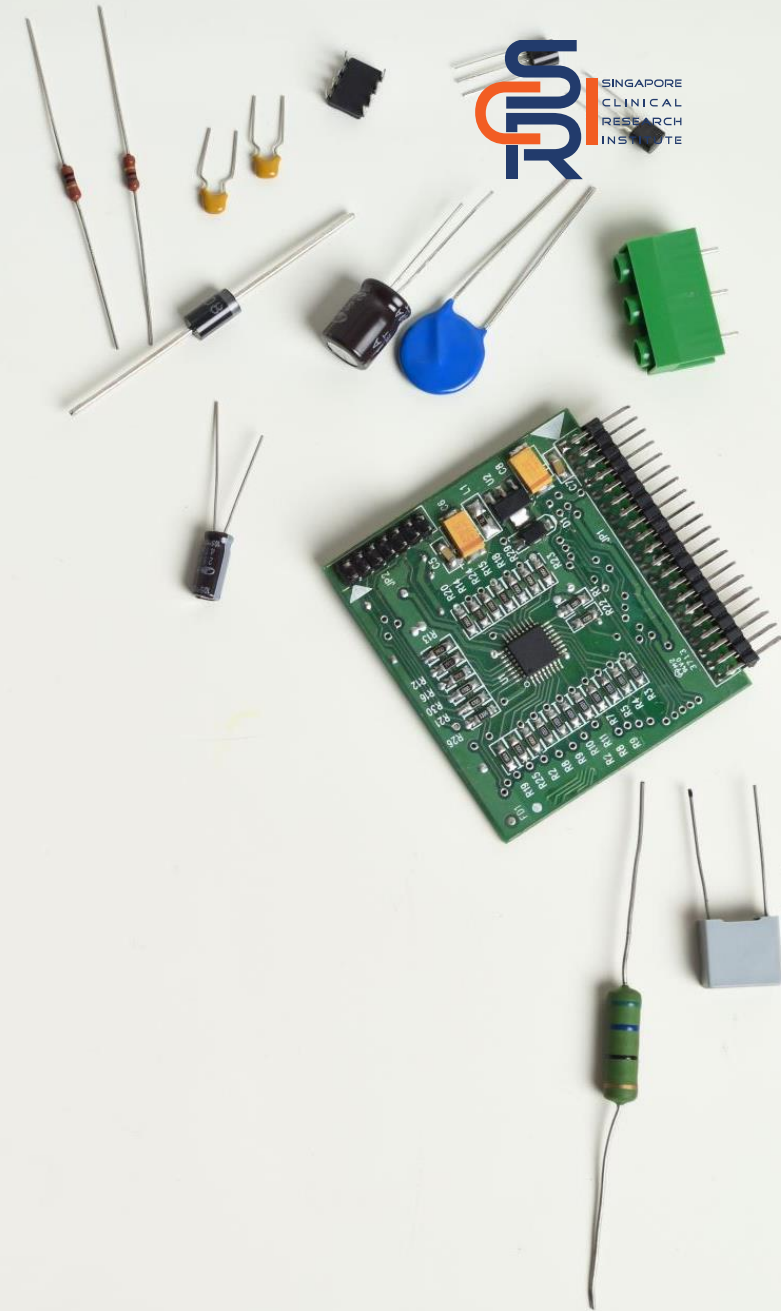
Project Managers

CRIS and SCRI: Intra-connection & Inter-connection

SCRI,

working **with** and **through**
CRIS,

to amplify engagement and
outreach in the local and
regional ecosystems.



Case 01

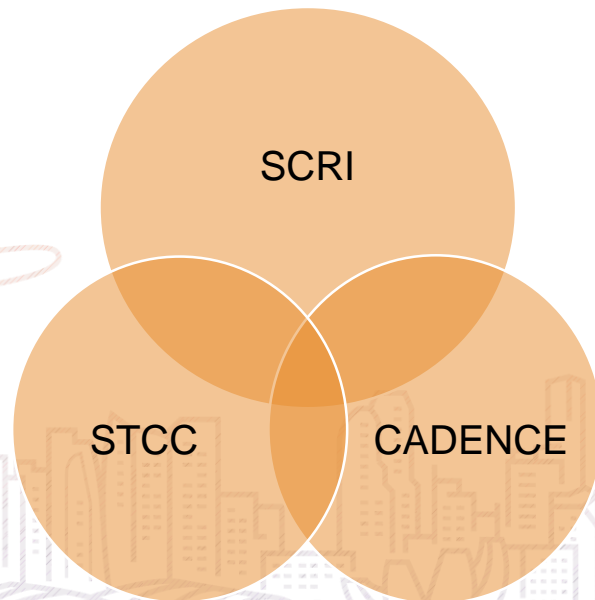
Propelling a full-suite support for local and international biotech companies in the cell therapy arena.

- 2023: ACTRIS sets up a **GMP-compliant manufacturing plant** for the cellular therapy.
- Usage of the manufacturing plant opened to the local and international communities.
- A number of biotech start-ups expressed interest; requested for additional support, such as GxP expertise, marketing intel, conducting Phase 1 studies etc.
- SCRI to step in to provide **trial operational support**, e.g. bridging potential sponsors with like-minded local investigators (through STCC), monitoring activities, IWRS platform, etc.
- Meeting the needs of **specialized training for the industry**: Joint training program between the SCRI training academy and ACTRIS to provide training to the clinical research professionals locally and regionally.



Case 02

Setting up a national-level, multi-discipline clinical trial listing for local and regional patients and caregivers, and a similar catalogue of local and overseas bio repositories for research purposes.



- 2023: Clinical Trials Singapore (CTSG) is a national clinical trial portal initiated by SCRI to benefit the local and regional ecosystem, targeted at the three key players in the clinical research enterprise – Patients, Trial Sponsors, Clinical Investigators.
- Given the focus on clinical trial implementation in our sister BUs – STCC & CADENCE, we worked with them to build search engines for our three target user groups as a *coordinated effort*:
 - Patient-Trial Matching search engine
 - Clinical Site search engine
 - Clinical Investigator search engine
- Harnessing the sweet spot through *organic discovery*: Harmonizing the search engines across three BUs while retaining the ‘flavors’ of each discipline.
- Scores & Misses through organic collaboration:
 - Patient-Trial Matching Search
 - Bio Repositories Catalogue
 - Trial Participant Database