



Agency for
Science, Technology
and Research



OVERVIEW

CREATING GROWTH,
ENHANCING LIVES



AN OVERVIEW OF SINGAPORE

2017 GDP (€286 B)
S\$447.3 Billion

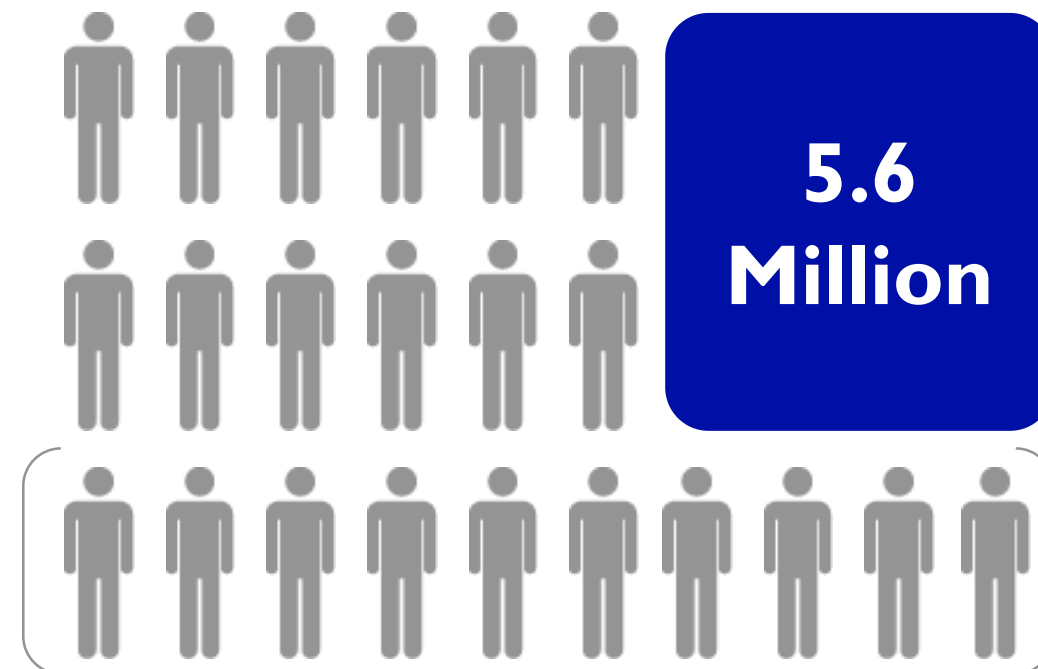
 **3.6%**
 Real growth

S\$79,697
 Capita GDP
(€50,960)




Independent since
9 AUG 1965

Population



 **Literacy rate**
97.0%
 aged 15 & above

 **76.3%**
 aged 25-39 with tertiary qualifications



Mobile phone penetration rate

105%
 2006

151%
 2017



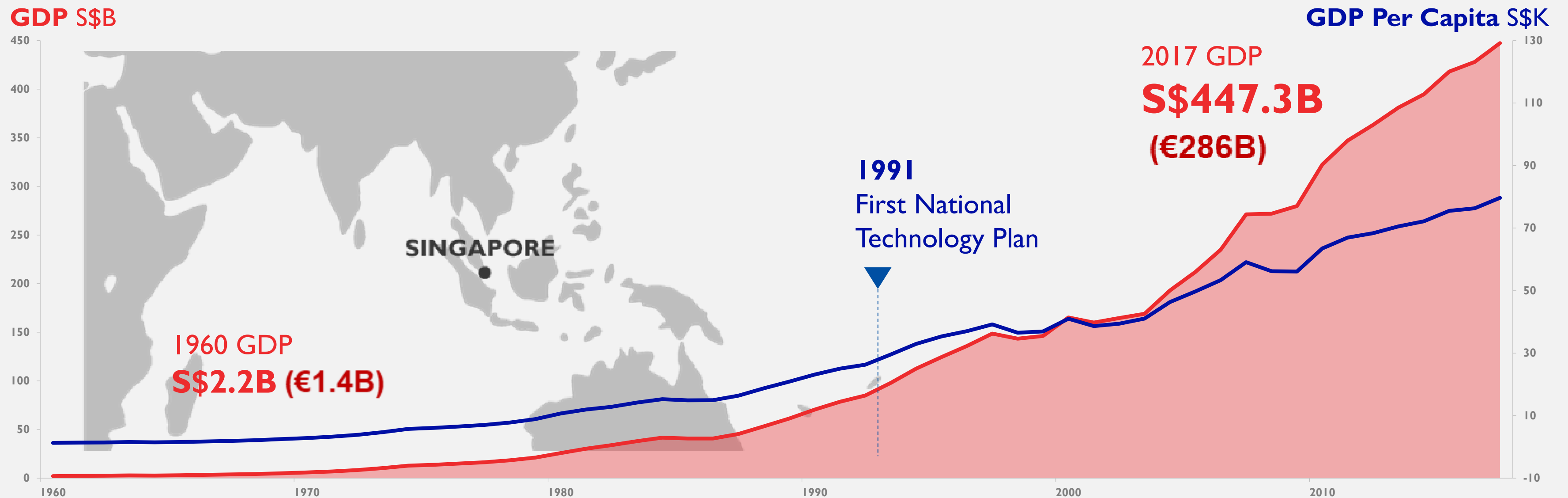
Household access To broadband

65%
 2006

91%
 2016

Sources: Singapore in Figures 2017 Department of Statistics and IIMDA's Annual Surveys on Infocomm Usage in Households and by Individuals and MDA POI

RIE INTEGRAL TO SINGAPORE'S ECONOMIC STRATEGY



1960s

Labour intensive

Low-end commerce with only handful of industries catering to domestic consumption

1970s

Skill intensive

MNC-led industrial development surging. Manufacturing evolving with greater sophistication

1980s

Capital intensive

Move to capital intensive & high technology industries, as local wages swelled

1990s

Technology intensive

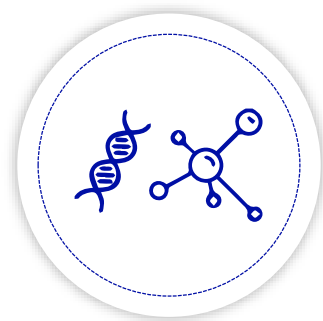
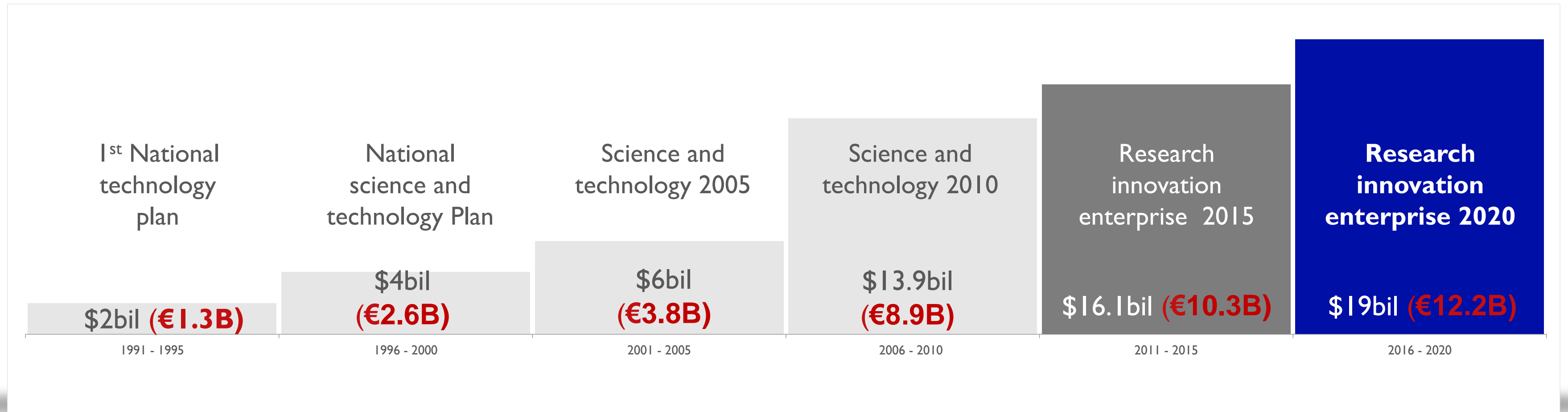
Global offshoring directed heavy emphasis on technology

2000s

Knowledge & innovation based economy

RIE became the cornerstone of economic development

RIE2020: STRATEGIC THRUSTS



Ensure **excellent science** and invest strategically in curiosity driven and mission oriented research



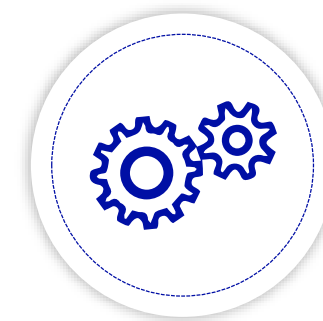
Strengthen flow through from research to economic and societal **impact**



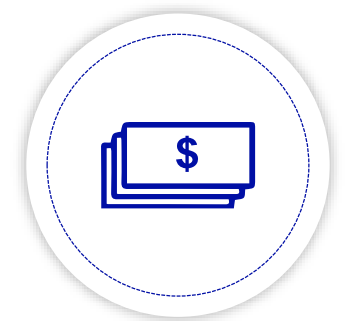
Greater national coordination of multi-stakeholder and multi-disciplinary collaboration



Sustain a robust and diverse research base and innovation **workforce**



Ensure responsiveness to pursue new opportunities and technology developments



Emphasis on competitive funding



ABOUT A*STAR



OUR MISSION AND VISION



MISSION

We advance science and develop innovative technology to further economic growth and improve lives



VISION

A global leader in science, technology and open innovation

A*STAR

MISSION

We advance science and develop innovative technology to further economic growth and improve lives

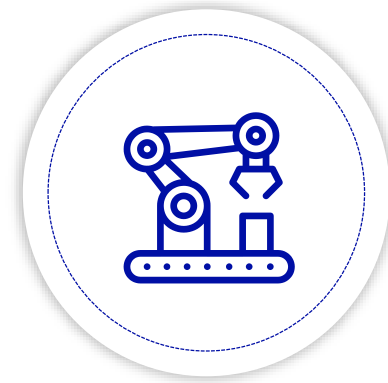


Biomedical Research Council (BMRC)

11 Research Entities



>5,200
Staff

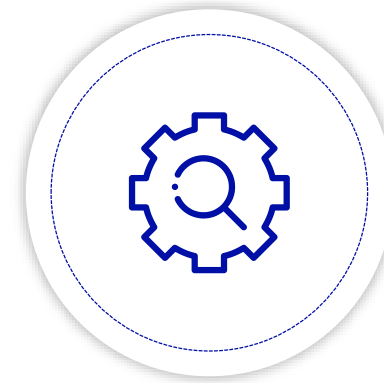


Science & Engineering Research Council (SERC)

9 Research Entities



>4,100
Researchers, Engineers and
Technical Support Staff



A*ccelerate

Commercialisation



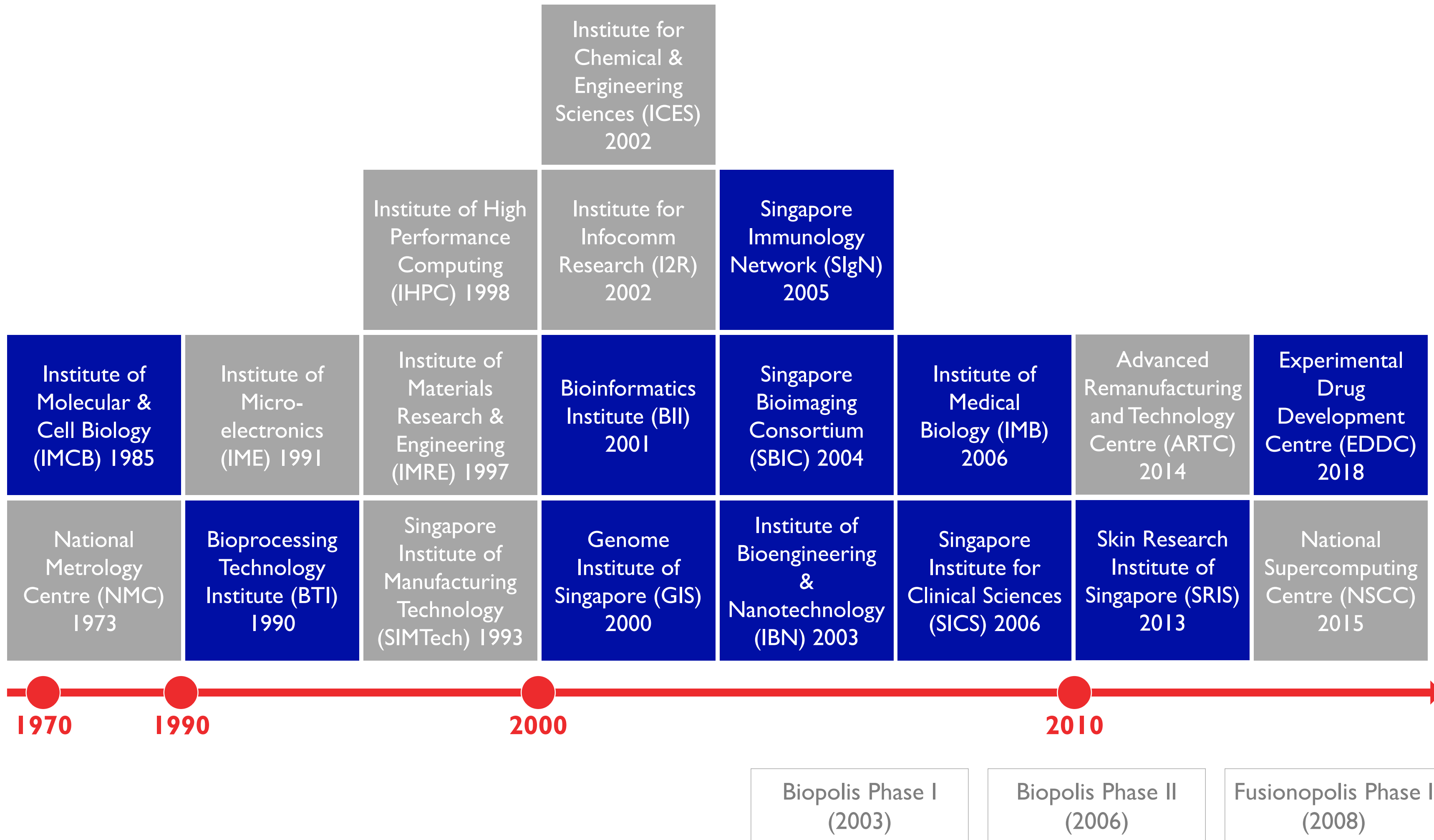
A*STAR Graduate Academy

Scholarships



~ 40%
from >60 countries

A*STAR'S RESEARCH ENTITIES

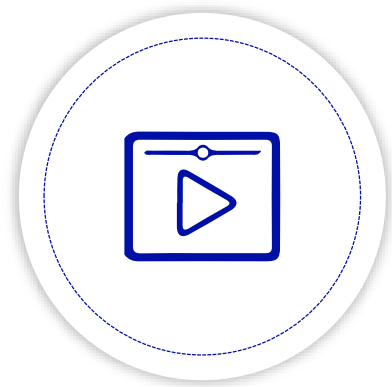


CORE SERC CAPABILITIES

-  Microelectronics
-  Infocomm Sciences
-  Computational Sciences
-  Metrology
-  Material Science
-  Chemical Sciences
-  Manufacturing Technologies



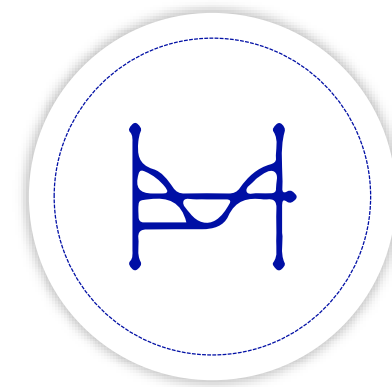
Electronics



Infocomm & media











Chemicals & materials

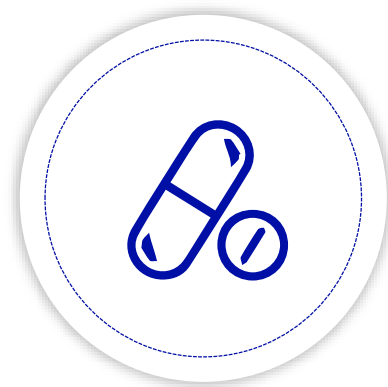


Engineering

Advanced packaging	Communications	Specialty chemicals	Precision engineering
More-than-Moore technologies	Software and computing	Performance materials	Aerospace
	Digital content and media	Bio-Pharma processing	Marine oil & gas
	Networking	Functional films	Automotive
			Logistics & supply chain management

CORE BMRC CAPABILITIES

-  Bioimaging
-  Molecular & Cell Biology
-  Drugs/ Biologics
-  Bioprocessing
-  Discovery and Development
-  Computational Biology
-  Genomics & Proteomics
-  Bioengineering & Nanotechnology
-  Immunology



Pharmaceuticals

Development of small molecule therapeutics



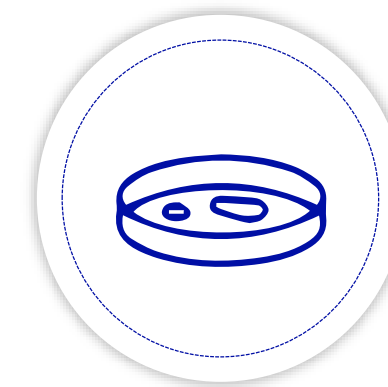
Nutrition & personal Care

Development of high-value nutrition and personal care/ consumer products



Medical technology

Medical devices, info tech, diagnostics



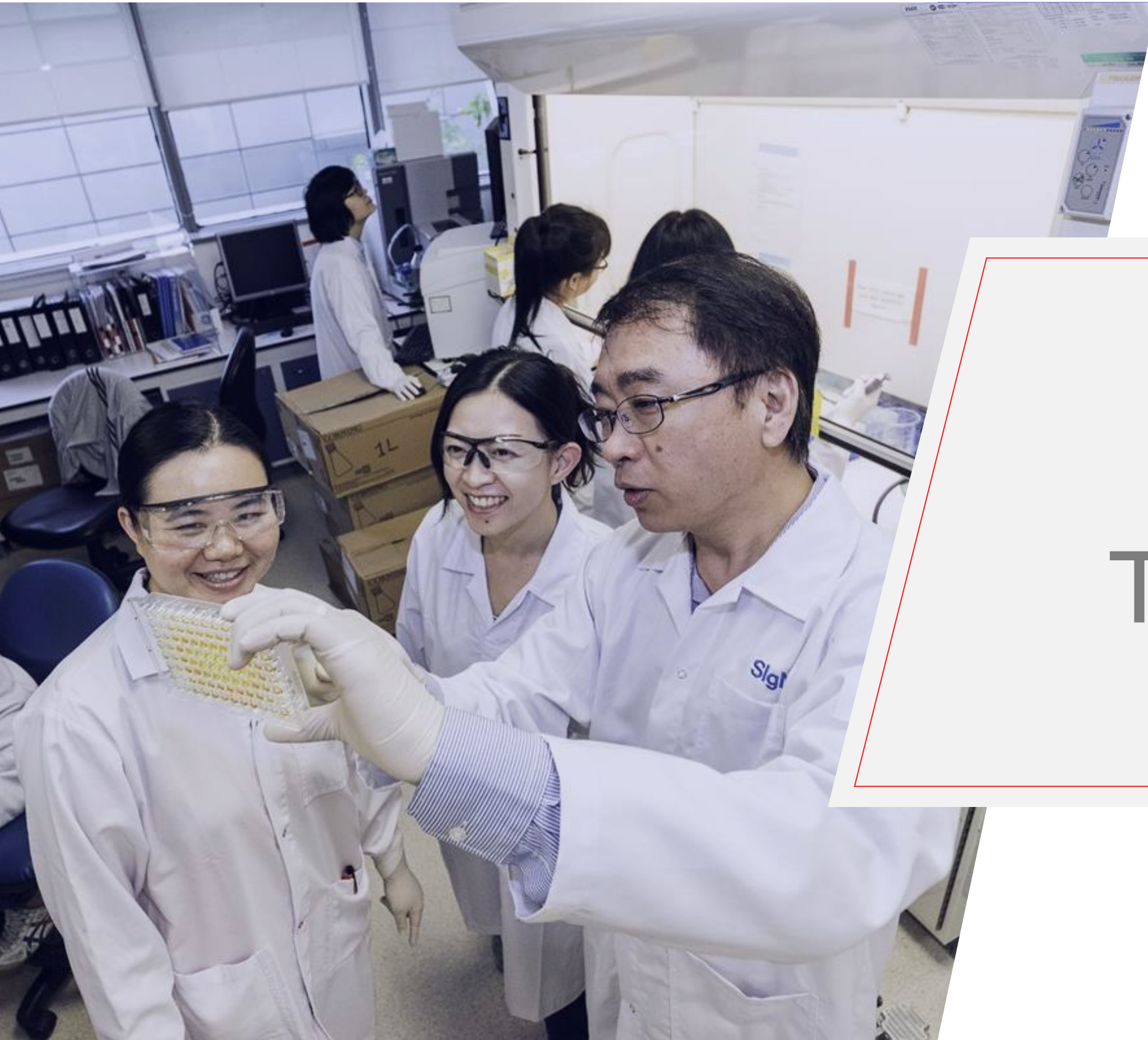
Biotechnology & biologics

Development of protein-based therapeutics

INTERNATIONAL RELATIONS & PARTNERSHIPS

Continue to foster collaborations and cooperation through bilateral grants, scientific exchanges and joint symposiums





OUR TALENT

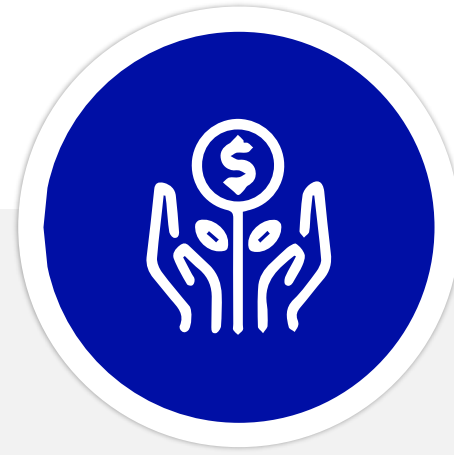
A*STAR'S TALENT STRATEGY

Strong core of Singaporean research talent, complemented by **rich diversity** of international researchers



Creating the Pipeline

STEM Outreach to improve STEM pipeline and enthuse young to take up science & research as a career



Investing in the Pipeline

Scholarships strategy to meet scientific talent needs

- Singaporean core
- International diversity
- Sizing of scientific talent needs



Developing the Pipeline

Post-PhD development of early career researchers, and development of leaders



A*STAR GRADUATE ACADEMY

Nurturing a Pipeline of >1,500 Singaporean PhD Talent

A*STAR has awarded more than 1,500 Scholarships to develop Singaporean PhD talent since 2001. Over 800 scholars have completed their PhD/ postdoctoral training & are contributing to Singapore's Research, Innovation and Enterprise (RIE) ecosystem



Assoc Prof Karen Crasta
Lee Kong Chian School of Medicine,
Nanyang Technological University (NTU)
A*STAR International Fellowship Recipient



Dr Yar Kar Peo
Data Scientist - Chief Technology Office at ST
Electronics
National Science Scholarship (PhD) Recipient



Dr Jonathan Loh Yui Han
Principal Investigator, Institute of Molecular &
Cell Biology (IMCB)
A*STAR Graduate Scholarship Recipient



Dr Seah Kwang Hwee
Assistant Vice President, Accelerate
Technologies Pte Ltd (A*ccelerate)
A*STAR Graduate Scholarship Recipient

A*STAR GRADUATE ACADEMY

Building a robust & diverse talent pool



Strengthening
international linkages



Opportunities for graduate & pre-graduate students from around the world

Singapore International Pre-Graduate Award (SIPGA)

- Short-term research attachments at A*STAR Research Institutes for students in the later years of their Bachelors' or Masters programmes
- Over 850 students awarded to date

A*STAR Research Attachment Programme (ARAP)

- PhD research opportunities at A*STAR Research Institutes under joint supervision of A*STAR scientists and faculty from overseas universities
- Over 250 international students awarded to date

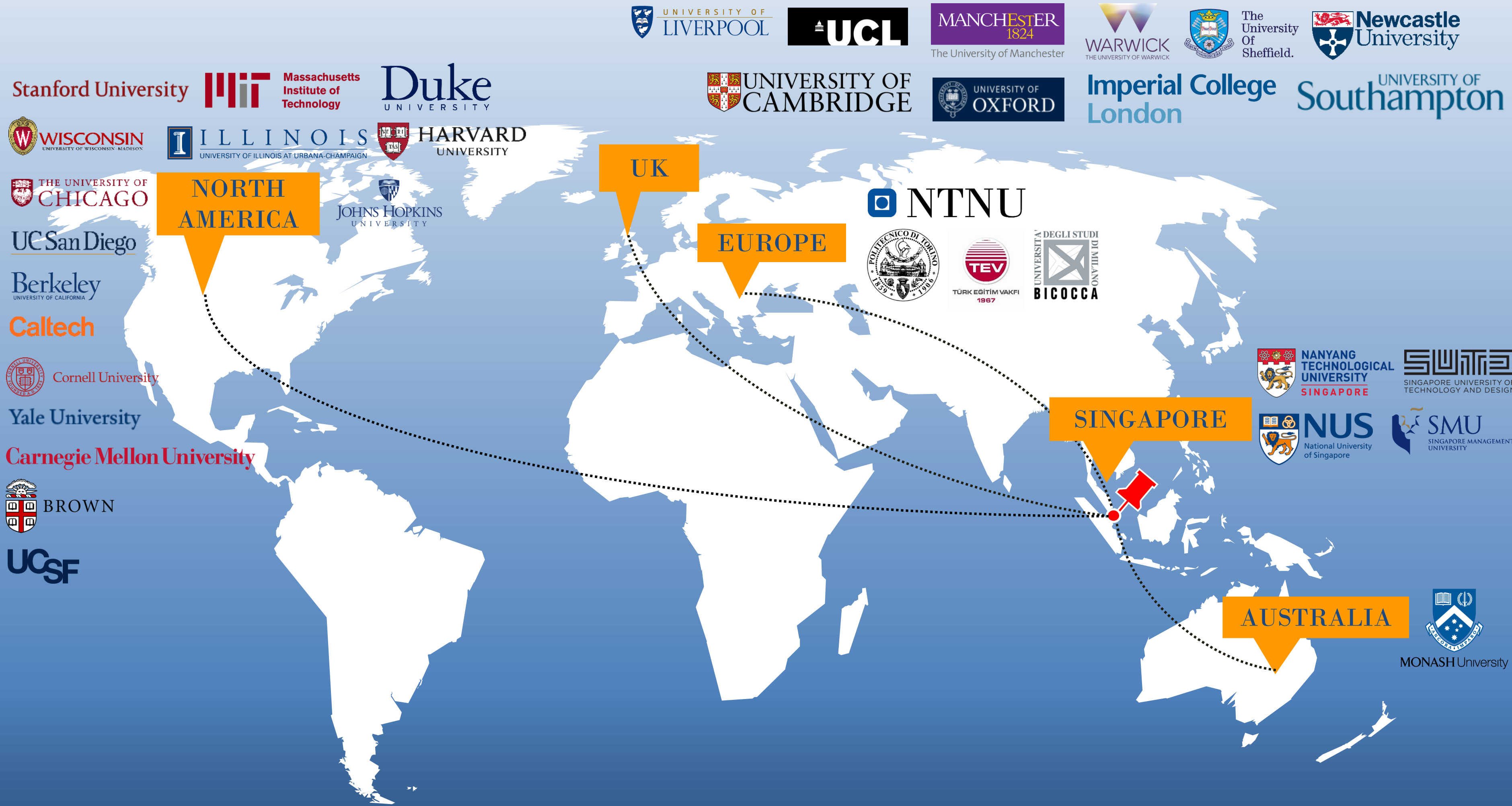
Singapore International Graduate Award (SINGA)

- 4-year PhD programme at A*STAR RIs, in partnership with NUS, NTU and SUTD
- Full PhD scholarships awarded to over 250* international students

Data as at 30 June 2018

* 840 awardees across A*STAR, NTU, NUS and SUTD

NETWORK OF PARTNERS IN GROWING SCIENTIFIC TALENTS



A*STAR RESEARCH ATTACHMENT PROGRAMME (ARAP)



A*STAR RESEARCH ATTACHMENT PROGRAMME (ARAP)

Eligibility

- Enrolled in PhD course with the university
- Obtained 2nd Upper Honours (or equivalent) for BSc

Terms of award



Monthly stipend of S\$2,500



Housing subsidy



Medical insurance



One-time airfare grant
(S\$1,500)



One-time settling-in
allowance (S\$1,000)



Conference and
training allowance

**SINGAPORE INTERNATIONAL
GRADUATE AWARD (SINGA)**

SINGAPORE INTERNATIONAL GRADUATE AWARD (SINGA)

World-Class Learning and Research Facilities

Vibrant Campus Life

Top-notch faculty

Global learning



4 years of PhD studies
Internationally Recognized
Universities



**SINGAPORE INTERNATIONAL
PRE-GRADUATE AWARD (SIPGA)**



SINGAPORE INTERNATIONAL PRE-GRADUATE AWARD (SIPGA)

- Short term (2 to 6 months) research attachment in an A*STAR research institute

Eligibility

- 3rd / 4th year undergraduates or Master students
- Obtained/On track to 2nd Upper Honours (or equivalent) for BSc

Terms of award



Monthly stipend of S\$1,500



**SINGAPORE INTERNATIONAL
GRADUATE AWARD (SINGA)**



SINGAPORE INTERNATIONAL GRADUATE AWARD (SINGA)

Eligibility

- Graduates with excellent academic performance
- Strong passion for research
- Good skills in written and spoken English
- 2 good recommendation reports from academic referees

Terms of award



Monthly stipend of S\$2,000
(\$2,500 after QE)



Housing subsidy



Medical insurance



One-time airfare grant
(up to S\$1,500)



One-time settling-in allowance (S\$1,000)



Conference and training allowance



CONTACT US

A*STAR Graduate
Academy