



# CSI

Cancer Science Institute of Singapore



## OUR STORY

CSI Singapore is a state-of-the-art University research institute affiliated with, and hosted at the National University of Singapore. It was established in 2008, with a "Research Centre of Excellence" grant, one of only five in Singapore, by the National Research Foundation and the Ministry of Education.

The institute is an anchor for research expertise in three broad programmes; Cancer Biology & Stem Cells, Experimental Therapeutics, and the RNA Biology Centre; these programmes form expansive platforms for CSI Singapore's focus on key cancers, namely in gastric, liver, lung and leukaemia which are endemic in the Asian populations. CSI Singapore aims to position Singapore as a global-leader in the field of Biomedical Sciences.



**Ashok Venkitaraman**  
Director, CSI Singapore

Our research now seeks to advance understanding of the molecular and cellular mechanisms that trigger cancer evolution in different human tissues, and to apply this new knowledge for the benefit of cancer patients through improvements in cancer detection, treatment, and eventually, prevention.

## MISSION

Our mission is to better understand the causes of human cancer across Asia, and thereby improve its detection, treatment and prevention. Our outstanding researchers and exceptional facilities create an energetic environment for ground-breaking science and world-class training.



# RESEARCH TEAMS



**CHNG WEE JOO**

Our lab studies ways to overcome high-risk cancers



**CHEN LEI LEI POLLY**

RNA alterations in cancer and development of RNA-based therapeutics



**EDWARD KAI-HUA CHOW**

Engineering-based approaches to improve precision and personalised cancer treatment



**MELISSA FULLWOOD**

Investigating the 3-dimensional organization of enhancers and silencers in cancer



**GOH BOON CHER**

Development of novel treatments for cancers



**YOSHIAKI ITO**

Regulation of stomach epithelial stem cells in homeostasis and cancer



**ANAND JEYASEKHARAN**

How the immune system recognizes chemotherapy treated cancer cells



**DENNIS KAPPEI**

Proteomics of non-coding elements in cancer



**H. PHILLIP KOEFFLER**

Genomics and epigenetics of malignancies



**LEE SOO CHIN**

Novel therapeutics and predictive biomarkers in breast cancer



**MOTOMI OSATO**

Molecular analysis of RUNX leukaemia towards novel therapeutics



**JASON PITT**

Cancer genome data science at scale



**TAKAOMI SANDA**

Transcription factor and enhancer abnormalities in cancers



**TOSHIO SUDA**

Establishment of an *ex vivo* expansion platform for hematopoietic stem cells



**TAM WAI LEONG**

Translational approaches for targeting cellular energetics and cell states in cancer



**PATRICK TAN**

Genetic analysis of Asian-prevalent malignancies to identify new biomarkers and drug targets



**DAVID SP TAN**

Development of biomarkers and novel anti-cancer therapeutic agents focusing on gynaecological cancers



**YVONNE TAY**

Understanding RNA biology and developing RNA-based biomarkers and drugs



**DANIEL G. TENEN**

(1) Gene regulation and cancer; (2) the role of the oncofetal protein SALL4 in cancer



**ASHOK VENKITARAMAN**

Deciphering the mechanisms underlying cancer susceptibility to intercept cancer evolution



# AWARDS & ACHIEVEMENTS

2013

SINGAPORE TRANSLATIONAL  
RESEARCH (STaR) INVESTIGATOR  
AWARD

TOSHIO SUDA  
DANIEL TENEN

NATIONAL RESEARCH  
FOUNDATION (NRF) AWARDS

TAKAOMI SANDA  
MELISSA FULLWOOD

2015

NATIONAL RESEARCH  
FOUNDATION (NRF) AWARDS

YVONNE TAY  
TAM WAI LEONG

PRESIDENT'S SCIENCE AND  
TECHNOLOGY AWARD (PSTA)

PATRICK TAN  
TEH BIN TEAN

YOUNG SCIENTIST AWARD

YVONNE TAY

PRESIDENT'S ASSISTANT  
PROFESSORSHIP, NATIONAL  
UNIVERSITY OF SINGAPORE

POLLY CHEN

NANYANG ASSISTANT  
PROFESSORSHIP, NANYANG  
TECHNOLOGICAL UNIVERSITY

MELISSA FULLWOOD

2018

PROVOST'S CHAIR PROFESSOR,  
NATIONAL UNIVERSITY OF  
SINGAPORE

CHNG WEE JOO

2020

E. DONNALL THOMAS LECTURE  
AND PRIZE

TOSHIO SUDA

EMBO YOUNG INVESTIGATOR  
PROGRAMME

POLLY CHEN

YONG LOO LIN SCHOOL OF  
MEDICINE RESEARCH  
EXCELLENCE AWARD FOR  
AY2018/2019

TAKAOMI SANDA

BRIAN G.M DURIE OUTSTANDING  
ACHIEVEMENT AWARD

CHNG WEE JOO

2014

SINGAPORE TRANSLATIONAL  
RESEARCH (STaR) INVESTIGATOR  
AWARD

H.PHILLIP KOEFFLER

YOUNG SCIENTIST AWARD

MELISSA FULLWOOD

PRESIDENT'S ASSISTANT  
PROFESSORSHIP, NATIONAL  
UNIVERSITY OF SINGAPORE

YVONNE TAY

2016

SINGAPORE TRANSLATIONAL  
RESEARCH (STaR) INVESTIGATOR  
AWARD

PATRICK TAN

2017

SINGAPORE TRANSLATIONAL  
RESEARCH (STaR) INVESTIGATOR  
AWARD

CHNG WEE JOO

NMRC CLINICIAN SCIENTIST  
TRANSITION AWARD

ANAND JEYASEKHARAN

2019

SINGAPORE TRANSLATIONAL  
RESEARCH (STaR) INVESTIGATOR  
AWARD

TOSHIO SUDA  
DANIEL TENEN

THE PUBLIC ADMINISTRATION  
AWARD (BRONZE)

GOH BOON CHER

NATIONAL OUTSTANDING  
CLINICIAN SCIENTIST AWARD

GOH BOON CHER

2021

YONG LOO LIN SCHOOL OF  
MEDICINE GRADUATE MENTOR  
OF THE YEAR (GRAMAY) AWARD  
2021

CHNG WEE JOO

RESEARCH EXCELLENCE AWARD  
- AY 2019/2020

POLLY CHEN

SINGAPORE TRANSLATIONAL  
RESEARCH (STAR) INVESTIGATOR  
AWARD

GOH BOON CHER

NMRC CLINICIAN SCIENTIST  
AWARD

ANAND JEYASEKHARAN

NMRC CLINICIAN SCIENTIST  
AWARD

LEE SOO CHIN



# CORE FACILITIES

Core Facilities support the research groups and operations in CSI, NUS & the wider scientific community in Singapore.

## Drug Analysis Pharmacokinetics Core

Boon Cher Goh

## Transgenic & Gene Targeting Facility

Motomi Osato

## Leukemia Cell Bank

Wee Joo Chng /  
Allen Yeoh

## Quantitative Proteomics Core

Dennis Kappei

## Fluorescence Activated Cell Sorting (FACS) Facility

Motomi Osato

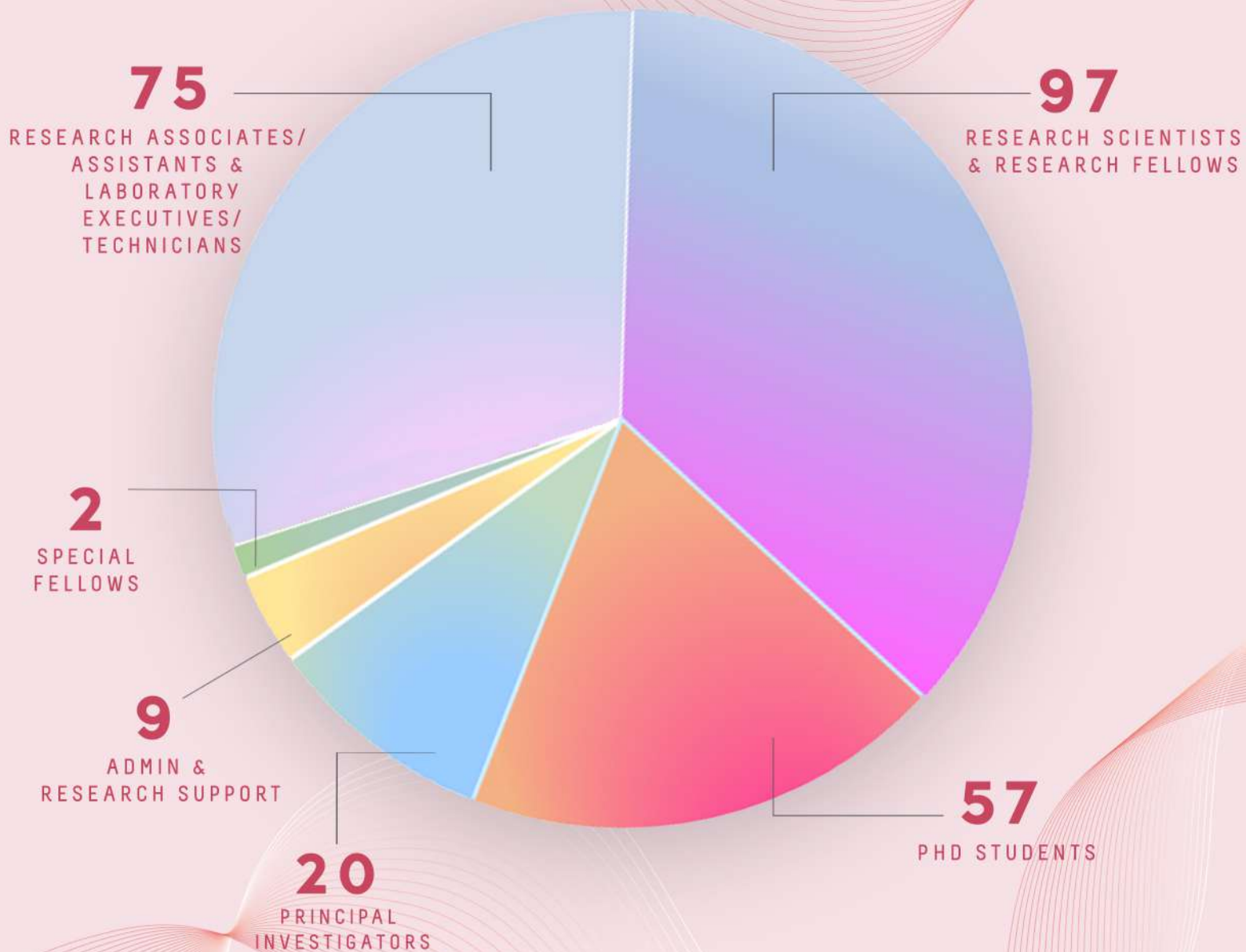
## Microscopy Core

Anand Devaprasath  
Jeyasekharan

## Genomics and Data Analytics Core (GeDaC)

Jason Pitt

# STAFF STRENGTH



# GRADUATE PROGRAM

CSI Singapore offers competitive scholarships for PhD in Cancer Biology. Successful candidates will have access to world-class facilities dedicated to cancer research and can look forward to working with a dynamic global team of renowned specialized scientists in an intellectually stimulating environment.



Monthly Scholarship Stipend  
of Up to **SGD \$3,600**

**Full Subsidy** of Tuition and  
Miscellaneous Fees



Allowances for Relocation, Laptop,  
Books/Software and Conferences

**Bond Free** Premium Scholarship



Yearly Intake in **August**



# 2020 PUBLICATION HIGHLIGHTS

**122**

PUBLICATIONS

**66,972**

CITATIONS RECEIVED  
2010 - 2020

**79**

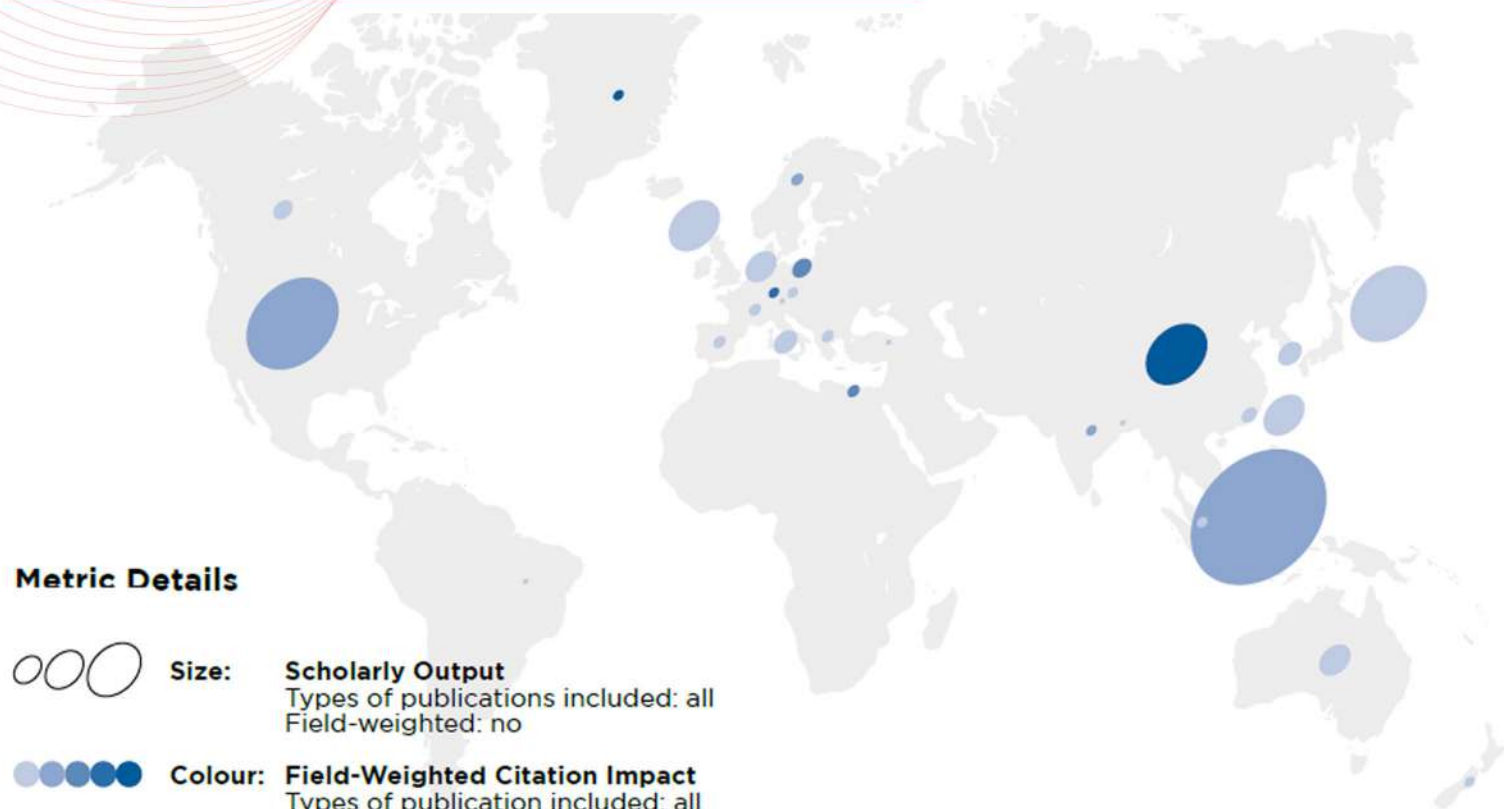
INTERNATIONAL  
COLLABORATIONS

**31**

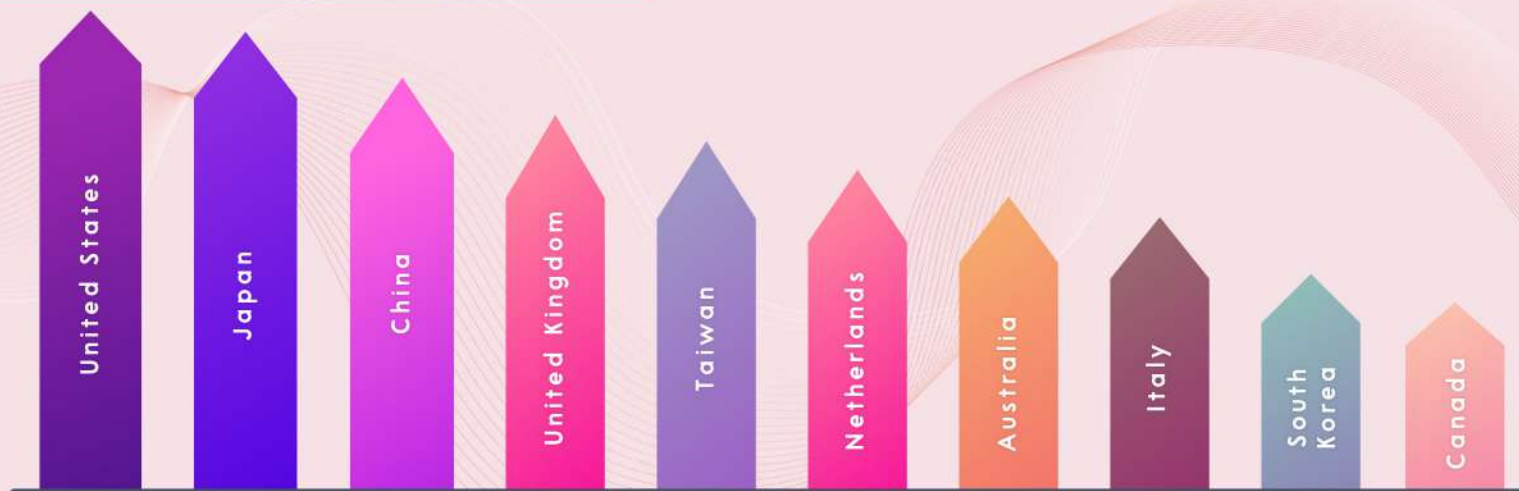
PRESS  
RELEASES



# COLLABORATION NETWORK



## Top Collaborators by Country:





CANCER SCIENCE INSTITUTE OF SINGAPORE  
National University of Singapore

Cancer Science Institute of Singapore  
National University of Singapore  
[www.csi.nus.edu.sg](http://www.csi.nus.edu.sg)

14 Medical Drive, #12-01, Centre for Translational Medicine (MD6), Singapore 117599