

N2CR INSIGHTS

THE QUARTERLY NEWSLETTER OF N2CR

Latest News

to our members
recognised by the

Congratulations National Medical Research Council Award 2026

January & July 2025 NMRC Grant Calls

Singapore Translational Research
Investigator Award (STaR)



Prof GOH Boon Cher
Director, N2CR
NUS Yong Loo Lin School
of Medicine



Prof Allen YEOH
NUS Yong Loo Lin School
of Medicine



A/Prof Mikael HARTMAN
NUS Yong Loo Lin School
of Medicine



Prof LEE Soo Chin
NUS Yong Loo Lin School
of Medicine



A/Prof Celestial YAP
Dept of Physiology, NUS



Dr Cinnie SOEKOJO
NUS Yong Loo Lin School
of Medicine



Adj A/Prof Vincent NGA
NUS Yong Loo Lin School
of Medicine

Clinician Scientist Award
~ Senior Investigator

Clinician Scientist -
Individual Research Grant

Transition
Award

Clinical Trial Grant -
Industry Collaborative
Trial

Clinician Trial Grant -
Investigator Initiated Trials

Prof Allen YEOH
Dr Widanalage Sanjay de Mel

Population Health
Research Grant

Prof LEE Soo Chin

Research Training
Fellowship

Dr Daryl Chia

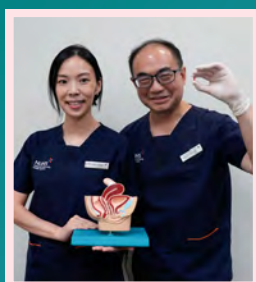
Cancer Researchers' Stories

Dr Melissa Ooi, SCOUT Theme Lead
Dept of Medicine, NUS
Senior Consultant, Dept of Haem-Onco, NCIS

N2CR's series returns,
featuring Dr Melissa Ooi,
who shares her passion for
health services
research and how her
work bridges research
and clinical practice.

In the Media

- Clinical Trial Advances Treatment for Rare Women's Cancers -



Singapore-led studies are advancing treatment options for clear cell ovarian and endometrial cancers — rare subtypes affecting Asian women that often resist standard chemotherapy.

Led by A/Prof David Tan and Dr Natalie Ngoi, the trial tested pembrolizumab plus lenvatinib, combining tumour inhibition with immune activation, and showed encouraging results:

- 40% of patients saw significant tumour shrinkage
- 50% had no disease progression beyond six months

Published in **The Lancet Oncology** and featured in **The Straits Times**, these findings mark meaningful progress for hard-to-treat cancers.

From N2CR to AACR: Abstracts and Awards

We are delighted to share that several of our early-career researchers and graduate students were selected by the American Association for Cancer Research (AACR) to present their abstracts at the annual meeting held this April.

In addition, Dr Stephen Chong received the AACR Scholar-in-Training Award in recognition of his outstanding research. N2CR celebrates these achievements as a testament to the dedication and hard work of our community.

Featured here are some photos of our presenters.

HUANG Xiao Zi
Graduate Student, N2CR

LEE Rui Xue
Graduate Student, NUS

KHO Yun Suen
Graduate Student, N2CR

Dr REN Yi, PhD
SRF, Dept of Otolaryngology, NUS

Dr Stephen CHONG, PhD
LKY Fellow, Dept of Physiology, NUS

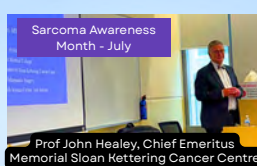
N2CR Invited Speaker Seminars

N2CR hosts leading academics to share their latest research and findings in cancer.

To mark World Ovarian Cancer Day (8 May), we hosted A/Prof David Tan on 25 May 2026.



He gave an insightful talk on '**Current Advances in the Management of Epithelial Ovarian Cancer**', showing how advances in cancer biology and the identification of novel therapeutic targets have driven treatment advances.



He presented on '**Orthopaedic Oncology: Advances in Drug Development for Tenosynovial Giant Cell Tumours and Osteosarcoma**', sharing exciting data on novel drug development to improve outcomes in these conditions.

On 17 June 2026, we hosted Prof John H. Healey, a leading pioneer in orthopaedic oncology.

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Industry Talks

N2CR engages with industry to bring new insights and advanced technologies into cancer research.



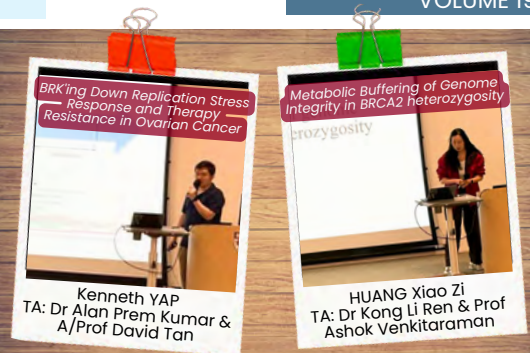
17 April 2026

Dr Volker Patzel (Chief Scientific Officer of Avecris) shared his entrepreneurial journey and a cutting-edge non-viral RNA suicide gene therapy approach for cancer—offering a highly selective strategy now advancing into animal studies.



22 April 2026

N2CR, together with ncRNA Core and Microscopy Cluster co-hosted Singleron for a Lunch & Learn session, highlighting single-cell whole transcriptome profiling to uncover mRNA, miRNA, and ncRNA insights from FFPE samples.



N2CR Internal Seminar

We have introduced a seminar series that provides students with a supportive platform to present their research, receive feedback, and build confidence for their oral defenses.

Launched on 26 June, the series will be held every two months. Please do come support our students as they share their work.

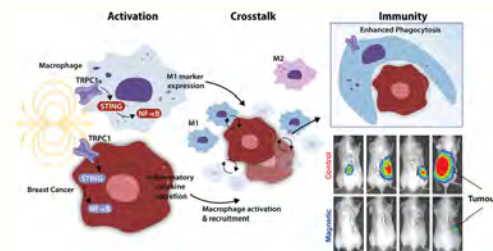
Research News

Hijacking the Tumour-Microenvironment: Weaponise Macrophages against Breast Cancer using Magnetic Pulses

(Smart Medicine; Viresh Krishnan Sukumar, Yee Kit Tai ... Lina Hsiu Kim Lim, Alfredo Franco-Obregon)

Researchers at N2CR have discovered that brief exposure to magnetic fields can reprogram the immune landscape of solid tumours. This shifts tumour-associated macrophages (TAMs)—immune cells that normally help cancer grow—into an anti-tumour “M1” state that hunts and destroys cancer cells. Simultaneously, magnetic pulses make cancer cells more visible to the immune system, effectively “flagging” them for attack. Together, this dual action helps the body’s defences target tumours while sparing healthy tissue.

This breakthrough study, published in Smart Medicine, was led by Viresh Krishnan Sukumar (N2CR Graduate Scholar), together with co-corresponding authors Dr Alex Tai Yee Kit, A/Prof Lina Hsiu Kim Lim and A/Prof Alfredo Franco-Obregón at NUS Medicine. Unlike current TAM-targeting strategies that risk widespread immune activation, low-frequency magnetic fields pass painlessly through deep tissues, offering a clinically viable, drug-free, spatially targeted therapy. Having successfully cleared a Phase I human safety trial, this technology paves the way for a new era of biophysical oncology — a breakthrough allowing clinicians to target deep-seated malignancies and turn the body’s own localised defences against cancer without systemic toxicity.



[Click here to read publication](#)

Translational Research Spotlight

- Harnessing Magnetic Fields for Cancer Care and Muscle Health -

A/Prof Alfredo Franco-Obregon



What began as basic research by A/Prof Alfredo Franco Obregón has now translated into clinical and community applications spanning cancer care and muscle health.

His work on low-frequency magnetic fields has shown promising effects on cancer biology and immune function, including laboratory and clinical studies demonstrating anticancer activity and a 2025 study published in *Cells* reporting enhanced anticancer properties of human serum following biweekly magnetic field exposure.

These findings highlight the potential of electromagnetic stimulation as a non-invasive approach to modulating immunity and tissue health. This includes implications for muscle health, which is vital for cancer prevention and recovery, improving resilience and reducing inflammation.

This research has now moved beyond the laboratory with the launch of the QuantumTx-NUH MitoCharge Muscle Health Centre at NUH Medical Centre, a partnership between NUS Medicine and NUH that brings the technology into community use to support muscle health, recovery, and healthy ageing. Given the importance of muscle health in resilience and cancer recovery, this work reflects a growing translational pathway from discovery to real-world impact.

Viresh K Sukumar, Alex Tai Yee Kit



[Click here to learn more](#)

Improving Treatment Predictions in Acute Myeloid Leukemia

(Cancer Cell International; Yi Chai, ... Wee-Joo Chng, Jianbiao Zhou)



Acute Myeloid Leukemia (AML) is a cancer of the blood and bone marrow. About 30% of patients do not respond well to the first treatment. Current risk stratification systems such as the European LeukemiaNet (ELN) are used to guide treatment decisions, but they do not always accurately predict how patients will respond.

In this study, led by N2CR researchers Dr Zhou Jianbiao and Prof Chng Wee Joo, the team highlights the limitations of existing methods that rely mainly on genetics. They suggest that including additional information—such as changes that affect how genes are switched on or off (methylation profiling)—could help better predict treatment response and guide more effective treatment strategies for AML patients.

Study explores oral therapy for advanced nasopharyngeal cancer

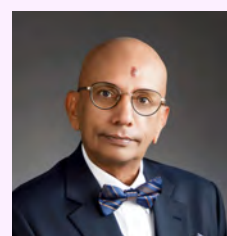
(Clinical Cancer Research; Jia Li Low, ... Brigitte Ma, Boon Cher Goh)

A multicentre study, led by the N2CR Director Prof Goh Boon Cher and Dr Low Jia Li, explored an oral chemotherapy drug for advanced nasopharyngeal cancer, where treatment can become more difficult when the cancer no longer responds to standard platinum-based therapy.

In some patients, including those who had already received several other treatments, the drug was found to help slow or shrink the cancer with durable disease control. Because it is taken by mouth, it may also be more convenient than chemotherapy given through an IV. By exploring another possible treatment option, this work adds to ongoing efforts to improve care for patients with limited remaining choices.

**A New “Master Switch” Discovery Could Change the Future of Breast Cancer Treatment**

(Cell Death & Disease; Wanpei Chai, ... Kevin B. Myant, Alan Prem Kumar)



Dr Alan Prem Kumar and his team have discovered a key protein called DP103 that acts like a “master switch,” helping one of the most aggressive forms of breast cancer grow, spread, return after treatment, and resist chemotherapy. By switching off this protein with an investigational drug, researchers were able to dramatically slow cancer growth, reduce the treatment-resistant cells responsible for relapse, prolong survival in animal preclinical studies, and largely spare healthy cells. This breakthrough brings us a step closer to more precise, personalised cancer treatments that target the root cause of disease rather than simply shrinking tumours, offering new hope for patients with difficult-to-treat breast cancers.

Updates & Upcoming Events**N2CR Poster Day Programme**

Stage 1 (2.00 – 3.15pm): **Poster Presentation & Voting**
All attendees to vote for their favourite poster and presenter.

Stage 2 (3.45 – 4.35pm): **Flash Talk**
The top 5 most voted posters will advance to a 10-minute Flash Talk Competition to win prizes!

POSTDOC &
GRADUATE
STUDENT CLUB
N2CR

12 TO 1 PM FRIDAY, 24 JUL 2026
VIA ZOOM

TALK TITLE

**Development and
Integrative Deciphering of
Spatiotemporal Multi-omics
Data Landscapes in
Oncology via
Computational Biology**



Jianhua QU
Professor and Chair,
Department of
Biomedical Data Science,
Guangdong Medical
University

Scan to join
ZOOM



Join us
Tuesday,
7 July
2 PM TO 5.30 PM
S9 Student Lounge @ Lvl 2
Above Starbucks



Stage 1 Attendees vote for the **TOP 5** best posters!

Stage 2 Flash talk by the **TOP 5** posters selected from Stage 1!



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following services

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Histology Services

Facility Booking

Please click on the
services for further
information or email
n2cr@nus.edu.sg with
any queries.

N2CR Bulletin

We have created a WhatsApp
group to share announcements on
seminars, conferences, grant calls
and events with our N2CR
community.



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• **Collaborate**