NUS National University of Singapore | NUS Centre for Cancer Research
Yong Loo Lin School of Medicine

Issue 16 | Aug - Sep 2025

N2CR INSIGHTS

THE QUARTERLY NEWSLETTER OF N2CR

LATEST NEWS AND ACHIEVEMENTS

Promotion to full Professor

Congratulations to our members, Prof Ng Siok Bian and Prof Tan Soo Yong, on their promotion to full Professors – a well-deserved recognition of their outstanding contributions to research, education and clinical care.

Prof Tan is internationally recognised for redefining lymphoma pathology and advancing pathology education. Prof Ng is a leading expert in EBV-associated lymphomas, driving molecular insights and diagnostic precision.

Both are Senior Consultants at the Department of Pathology, NUH. Their work continues to inspire progress in cancer research and patient care.

Mrs Chan Li Leng with her husband, Mr Paul Chan (left), and her doctor, Professor Chng Wee Joo (right). ST PHOTO: NG SOR LUAN

Spotlight on World Cancer Research Day

24 September 2025 marked World Cancer Research Day, to time to honour the courage of those affected by cancer and to celebrate the scientific efforts driving change.

In a feature by The Straits Times, readers were introduced to personal stories of patients navigating their cancer journeys, alongside insights from clinicians and researchers working at the forefront of cancer breakthroughs. Among those highlighted was Prof Chng Wee Joo, an N2CR member, whose research in blood cancers such as multiple myeloma is helping to shape the future of treatment.

N2CR Postdoc & Graduate Student Club

The N2CR Postdoc & Graduate Student Club, established to support the professional growth of postdocs and graduate students, launched its first talk of the year on 5 Sep 2025, marking the start of its second chapter under our new president, Dr Stephen Chong.

Dr Chong warmly welcomed attendees and shared an overview of upcoming seminar sessions designed to promote learning, networking, and career development within the cancer research community.

Stay tuned for more events and opportunities to engage!

Let's Welcome our Primary Members

Dr Shen Yujia
Dept of Medicine, NUS

Dr Peter Yeow
Dept of Biochemistry, NUS

Dr Liu Bee Hui
Cancer Science Institute of Singapore, NUS

Dr Ren Yi
Dept of Otolaryngology, NUS

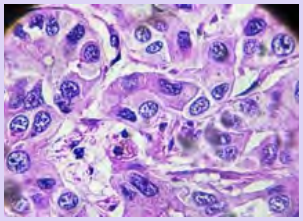
Dr Tan Tuan Zea
Cancer Science Institute of Singapore, NUS

Research News (Aug - Sep 2025)

Overcoming Drug Resistance in Liver Cancer

(Cell Communication and Signaling; Yu Tian, ... Gautam Sethi, Zhirui Zeng)

Sorafenib is a first-line therapy used to treat advanced liver cancer, but its effectiveness is often reduced due to resistance in cancer cells. This study co-led by N2CR member, A/Prof Gautam Sethi, explored the biological mechanisms behind that resistance and identified a group of genes involved in retinoic acid metabolism that help cancer cells survive treatment.



These genes are activated by a protein called POU3F3, which boosts the production of retinoic acid — a compound that protects cells from damage. By silencing POU3F3, researchers were able to make cancer cells more responsive to sorafenib. They also identified a compound called rosarin that inhibits POU3F3 and enhances the drug's effectiveness. Laboratory and animal tests showed that combining rosarin with sorafenib significantly improved treatment outcomes. These findings suggest that targeting POU3F3 could be a promising strategy to overcome drug resistance and improve the success of liver cancer therapies.

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Prospective Evaluation of QPOP in Relapsed/ Refractory Non-Hodgkin's Lymphoma

(JCO Precision Oncology; Rui Xue Lee ... Edward KH Chow, Anand D Jeyasekharan)

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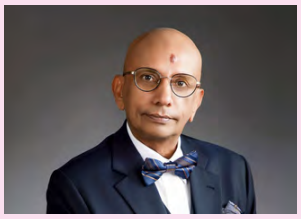
Treatment of relapsed/refractory non-Hodgkin's lymphoma (R/R-NHL) remains one of the most difficult challenges in haematologic malignancies, with many patients exhausting standard therapies and facing limited treatment options. In a final report extending on interim results from a prospective study led by N2CR members, Dr Anand D Jeyasekharan and A/Prof Edward Chow, at NCIS and NUS, a novel AI-guided ex vivo drug screening tool, Quadratic Phenotypic Optimisation Platform (QPOP), accurately predicted response to drug combinations in 74.5% of 117 lymphoma cases.

Those who received QPOP-guided patient-specific treatment had a 59% overall response rate and nearly 60% experienced longer response duration compared to their preceding treatment. Two-year survival analysis revealed significant extension of progression-free survival in QPOP-guided group compared to those on standard salvage regimens (P=0.019), with 44% lower risk of progression. These findings demonstrated clinical utility and potential of QPOP as a functional precision medicine platform, supporting its development as a clinical decision support tool in the management of R/R-NHL patients.

New Hope for Treating Drug-Resistant Leukaemia

(Nature Reviews Clinical Oncology; Antonino Glaviano, ... Courtney D DiNardo, Alan P Kumar)

Acute myeloid leukaemia (AML) is a fast-growing blood cancer that often becomes resistant to standard treatments. This resistance is linked to proteins that prevent cancer cells from dying. A new class of drugs, called BH3 mimetics, is showing promise by targeting these proteins and helping treatments work more effectively. One such drug, venetoclax, has already improved outcomes for older patients or those unable to undergo intensive chemotherapy. When combined with existing therapies, it has led to better response rates and longer survival, earning approval from the U.S. FDA.



In this review, co-led by Dr Alan Prem Kumar, the transformative potential of BH3 mimetics in AML therapy is explored, including ongoing research into new drug combinations and strategies aimed at refining treatment approaches. The ultimate goal is to improve outcomes for patients by making therapies more effective and better tailored to individual needs.

Read More

Upcoming Events

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For Consultation Services on Experiment Set-Up and Protocol Discussion, please email n2cr@nus.edu.sg or visit our website