

N2CR INSIGHTS

THE QUARTERLY NEWSLETTER OF N2CR



Latest News

N2CR STAFF RETREAT

After 2 years, N2CR had its very first Staff Retreat on 31 March 2023!

Held at the Republic of Singapore Yacht Club, our primary, secondary, affiliate and associate members came together to talk about their ongoing projects and new areas for collaboration. After a vibrant afternoon of group discussions and presentations, we ended the evening with a sweet barbecue feast.

Thank you to all who attended! We hope to see you again next year.



HERE'S WHAT'S UP!

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April

2nd N2CR Post-doc Club

May

ECI Thematic Seminar
SSR Clinic

Oxford Nanopore Lecture

July

CSI-N2CR Invited
Speaker Seminar

Follow us on social media!



Get to know Polly Chen! RNA Research Ambassador 2023

N2CR sat down with Associate Professor Polly Chen to learn more about her role as an RNA Research Ambassador and her motivations in pursuing cancer research.

[Click here](#) to find out what inspired A/Prof Polly to become a scientist!



Latest News

CanCycle

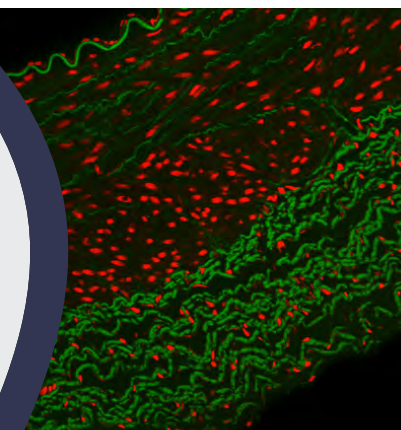
CanCycle was a cycling fundraiser co-organised by N2CR, CSI Singapore and NCIS. Thank you to all who participated and donated to the CanCycle. We have raised a total of \$51,179, with 9,807km cycled! Your generous contributions will make a lasting impact in cancer research.



N2CR SITE - SPECIFIC RESOURCES

The N2CR Site-Specific Resources (SSR), in partnership with NUH Tissue Repository and NUH Pathology, aims to support innovative research by providing relevant, usable patient-derived tissue resources to investigators to answer biological questions.

[Click here to learn more](#)



N2CR Invited Seminar with Prof Counter

On February 10, N2CR hosted Prof Christopher Counter from DUKE University in North Carolina, USA. Prof Counter honoured us with an interesting talk on RAS mutation tropism and how specific mutations track with distinct cancers.



POSTDOC & GRADUATE STUDENT CLUB

1st N2CR Postdoc and Graduate Students Club

N2CR had its first Postdoc club! Hosted by Dr Kong Li Ren, this meeting brought together postdocs and graduate students so that they may find opportunities to collaborate over similar research interests in the clinical and preclinical fields.

We hope everyone had a great time bonding over pizza and see you at the next one on 28 April!



N2CR would like to welcome its newest CSDU Fellow, Dr Dedrick Chan!

The NUS Medicine Clinician Scientists Development Unit (CSDU) helps to provide guidance and research opportunities to junior researchers in cancer and biomedical research.



DR DEDRICK CHAN
DEPARTMENT OF SURGERY, NUS

[Click here to learn more](#)

Open your labs to Junior Clinicians!

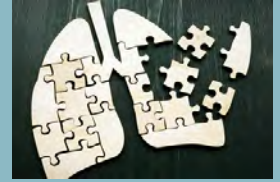
N2CR has partnered with the NUHS Clinician Scientist Academy (CSA) to provide opportunities for junior clinicians to do research in biomedical science. All N2CR PIs are invited to open their labs and offer research tryouts to these junior clinicians. Please scan the QR to express your interest.



Research News (Jan - Mar 2023)

Extracellular vesicles containing FAM3C promotes metastasis and secondary growth of non-small cell lung cancer (Theranostics, 1 Jan 2023)

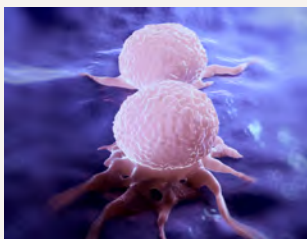
Cancer is known to kill mainly by spread to distant organs and destroying normal function. For a long time, the relationship between the original cancer, and the metastases in distant organs was not well understood – did they grow independently of each other with different behaviour? In this study helmed by Prof. Goh Boon Cher, the authors sought to determine the mechanism underlying the high capacity of Non-small cell lung cancer (NSCLC) for metastasis by examining the content of extracellular vesicles (EVs) released by NSCLC cells. Now the research group has found that cancers communicate through biomolecules carried by what was previously considered “cellular garbage” (EVs) circulating through the bloodstream, providing a source of cell-cell communication at distance. Specifically, they showed an example of a protein (FAM3C) that is carried in these tumour derived vesicles that promoted growth of cancers in a distant organ. The findings made present aberrantly high levels of FAM3C as a potential prognostic and predictive biomarker for the development of metastatic disease in NSCLC. As a result, stratification of patients based on FAM3C expression in plasma EVs may pave the path for developing therapeutic strategies against widespread tumour metastasis.



[Read More](#)

C1QBP Mediates Breast Cancer Cell Proliferation and Growth

(International Journal of Molecular Sciences, 10 Jan 2023)



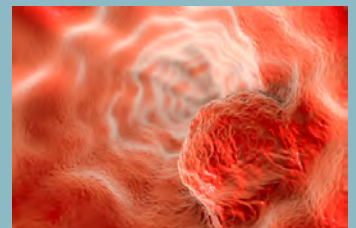
[Read More](#)

Breast cancer is the most common cancer in women globally. Survival from this complex disease is limited by challenges that include the development of drug resistance. These challenges necessitate the discovery and development of novel therapeutic targets and the improvement of treatment regimes. In this study, led by Prof. Bay Boon Huat and A/Prof George Yip, the authors investigated the role of C1QBP in breast cancer progression, where C1QBP is a protein which has shown both an association with breast cancer and potential as a cancer therapeutic target in preliminary studies. Findings from this study provide a deeper understanding of the role of C1QBP in breast cancer and potentially lay the foundation for future development of C1QBP-targeted therapy for breast cancer.

Immunotherapy for Advanced Oesophageal Squamous Cell Carcinoma

(JAMA Oncology, 1 Feb 2023)

Immune checkpoint inhibitors (ICIs), a type of therapy which can greatly enhance the ability of the immune system to recognise and attack cancer cells, have been effective in improving the survival outcomes of advanced oesophageal squamous cell carcinoma (ESCC) patients. While the efficacy of ICIs has been clearly demonstrated in patients with high levels of expression of the protein, PD-L1 in tumors, it is unclear if ICIs can likewise confer a survival benefit to advanced ESCC patients with low tumour PD-L1 expression levels. Results from this study, led by Dr Raghav Sundar, suggest that ICIs do not afford a survival advantage to patients with low tumour PD-L1 expression. These findings further suggest that ICIs can be avoided in patients with low tumour PD-L1 expression to minimise the additional economic cost and potential toxic side-effects associated with this therapy and that alternative treatment strategies should be investigated for this patient sub-group.



[Read More](#)

Improving Patient Selection for Phase I Clinical Trials

(British Journal of Cancer, 16 Feb 2023)



[Read More](#)

Phase I trials are an essential part of bringing new cancer therapies into the clinic. As participation in Phase I trials usually requires life expectancy of greater than 3 months and the overall survival of potential participants is difficult to predict, poor selection of patients for participation in these trials may skew overall outcome of the trial. Thus, the effect of the treatment being investigated may not be accurately reflected. To address this issue, the authors, led by Dr Chee Cheng Ean, conducted the largest Asian study to date to validate the Royal Marsden Hospital (RMH) prognostic score, which has previously been used to predict overall survival in Western populations. The authors also developed a National University Cancer Institute, Singapore (NCIS) score with exceptional capacity for the prediction of short- and longer-term survival of patients in Phase I trials. Their findings provide a basis for the improvement of Phase I trials conducted in Asian populations.

Research News (Jan - Mar 2023)

Novel Treatment Strategy for Gastric Cancer

(Annals of Surgical Oncology, 1 Mar 2023)

Gastric cancer with the development of peritoneal metastasis (cancer that has spread to the peritoneum) can be an incapacitating disease with poor survival outcome. This disease is usually treated with systemic chemotherapy. However, the presence of the peritoneal-plasma barrier can prevent the accumulation of chemotherapeutic drugs at levels sufficient to eliminate tumours in the peritoneum, reducing the efficacy of the treatment. To address the limitations associated with current treatment regimes, the authors, led by Prof Jimmy So and Dr Yong Wei Peng, tested the combination of systemic chemotherapy (oral Capecitabine and intravenous Oxaliplatin) with the direct injection of the chemotherapeutic drug, Paclitaxel, into the peritoneal cavity (intraperitoneal chemotherapy with Paclitaxel). Results from their study demonstrate the safety of the treatment regime and suggest that the regime improves survival compared to systemic chemotherapy alone. Overall, their findings show the promise of the treatment proposed and warrant a phase III study to verify the results obtained thus far.

[Read More](#)**Novel Biomarkers for the Diagnosis and Subtyping of Small B-Cell Lymphomas**

(Cancers, 10 Jan 2023)



The accurate diagnosis of the most common small B-cell lymphoma histological subtypes can pose a significant challenge for pathologists. There is an urgent need to address this challenge as the enhancement of diagnostic accuracy can lead to improved treatments and clinical outcome. In this study led by A/Prof Tan Soo Yong, the authors explored if microRNA (miRNA) expression can serve as potential biomarkers to improve diagnostic accuracy. Through their investigation, the authors identified and verified two sets of microRNAs that could not only identify small B-cell lymphomas but also distinguish between four subtypes of such lymphomas, highlighting the promise of utilising miRNA expression profiling as an aid for the diagnosis of small B-cell lymphomas.

[Read More](#)

Upcoming Events

2ND SEMINAR
12 TO 1 PM FRIDAY 28 APRIL, 2023
LEVEL 12 CONFERENCE ROOM, MD6

Talk by: Dr Stephen Chong
"THE FUNDAMENTALS OF ACADEMIC CAREER PROGRESSION"

NUS
NUS Centre for Cancer Research
Yong Loo Lin School of Medicine

POSTDOC &
GRADUATE
STUDENT CLUB

SSR CLINIC

22 May 2023, 3 - 4.30 pm
Venue: MD4-02-03E

The Site-Specific Resources (SSR) team in N2CR will be holding a SSR clinic for all N2CR members on how SSR can support the research endeavours of our members and the process through which members can request for tissue samples.

N2CR THEMATIC SEMINAR
Early Cancer Intervention
5 May 2023, 5 - 6 pm
Venue: Online (ZOOM)

OXFORD NANOPORE LECTURE

23 May 2023, 2 - 3.30 pm
Venue: MD6 LT35

Oxford Nanopore Technologies Singapore will be holding a short seminar in NUS. This seminar will highlight the various technologies Oxford Nanopore can offer for RNA and clinical research.

CSI - N2CR INVITED SPEAKER SEMINAR

20 July 2023, 1 - 2 pm
Venue: CRC Auditorium
Speaker: Prof Song Shumei

"Novel targets and Targeting Strategies for Gastric Cancer Progression and Metastasis-- focus on Hippo/YAP1 signaling in peritoneal metastasis"

Prof Song Shumei from the University of Texas MD Anderson Cancer Center, will be in Singapore in July for the Singapore Gastric Cancer Consortium. She'll be kindly stopping by NUS to give a talk on the above topic.