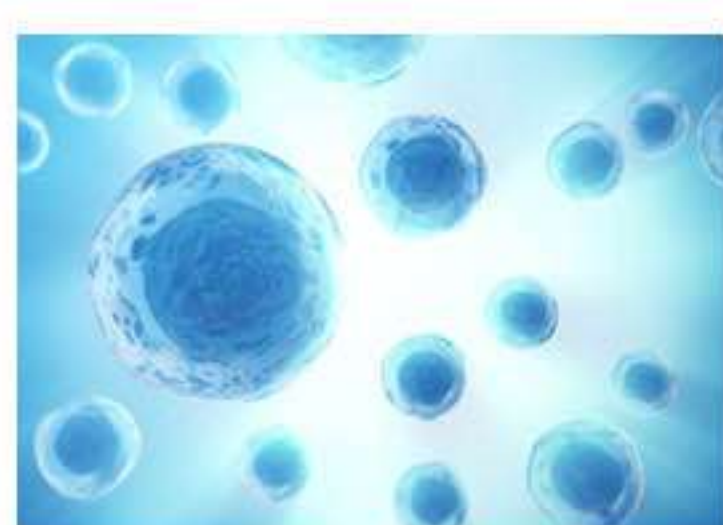


CANCER SCIENCE INSTITUTE OF SINGAPORE IN THE SPOTLIGHT

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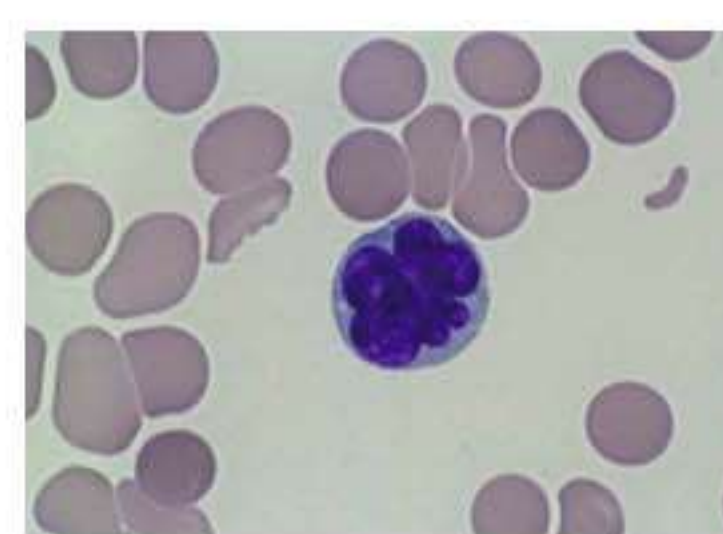
The RUNX1 Enhancer Element eR1: A Versatile Marker for Adult Stem Cells. (*Mol Cells*, Jan 2020)

In a novel step forward, the research group led by Prof. Yoshiaki Ito shed light on the expression profiles and roles of master transcription factor RUNX1 in diverse stem cells. The team also highlighted the development of a molecular tool, a 270 base-pair fragment of the runx1 enhancer (eR1) as a definitive marker for adult stem cells in multiple organs. The concept of using eR1 for targeted cancer therapy at stem cell level and cancer origin could be a potential avenue for therapeutic development.



Feed-forward Regulatory Loop Driven by IRF4 and NF- κ B in Adult T-cell Leukemia/Lymphoma. (*Blood*, Jan 2020)

Researchers from Dr. Takaomi Sanda's group have zeroed in on the transcriptional regulatory network in Adult T-cell leukemia/lymphoma (ATL). They established that two oncogenic transcription factors, IRF4 and NF- κ B form a coherent feed-forward loop in ATL cells to regulate gene expressions. Moreover, findings also suggest that IRF4 and NF- κ B bindings are enriched in super-enhancers and regulate critical oncogenes including MYC, CCR4 and BIRC3.



DNA Damage Signalling as an Anti-cancer Barrier in Gastric Intestinal Metaplasia. (*Gut*, Jan 2020)

Intestinal metaplasia (IM) is recognized as a precancerous precursor to gastric cancer (GC), which has a high incidence in high-risk Asian regions. Recent research by Prof. Yoshiaki Ito and his team has yielded new clues about the factors regulating IM to GC progression. Findings suggest a direct correlation between higher DNA Damage Response (DDR) signalling with lower propensity to accumulate genomic instability at the premalignant IM stage, underscoring a protective anti-cancer role for DDR signalling.



Researchers from CSI Singapore & ASLAN Pharmaceuticals Make Headway in the Treatment of Acute Myeloid Leukemia.



Acute Myeloid Leukemia (AML) is a common and aggressive blood cancer which has a relatively poor overall survival rate. In this pioneering study performed by researchers from CSI Singapore and ASLAN Pharmaceuticals, the team has made a quantum leap in the development of effective therapeutic modalities for AML. ASLAN003, a new anti-leukemia drug, is said to have less toxicity to normal bone marrow cells compared to chemotherapy. The drug's potential for treating AML was discovered by research team headed by Professor Chng Wee Joo from CSI Singapore and the National University Health System (NUHS).

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UPCOMING EVENTS

CSI Research Meeting
14 Feb 2020

Bioinformatics Workshop
20 Feb 2020

CSI Research Meeting
28 Feb 2020