

# CANCER SCIENCE INSTITUTE OF SINGAPORE IN THE SPOTLIGHT

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## Beginning of a New Era: Mapping the Bone Marrow Niche. (*Cell*, Jun 2019)

While studies about the bone marrow (BM) hematopoietic stem cell (HSC) niche remain of notable interest, many aspects of niche biology still remain contentious. In this comment article on bone marrow stroma, Prof. Toshio Suda and his team highlighted the need for a detailed map of stromal cell identities, which will contribute to the development of a more holistic understanding of bone marrow function. More importantly, such technical advances could open up avenues for the development of stromal therapies for bone marrow diseases.



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A Heartfelt Thank You to Our Donor, Mr Sim Chee Meng

## UPCOMING EVENTS

CSI Research Meeting  
5 July 2019

CSI Research Meeting  
19 July 2019

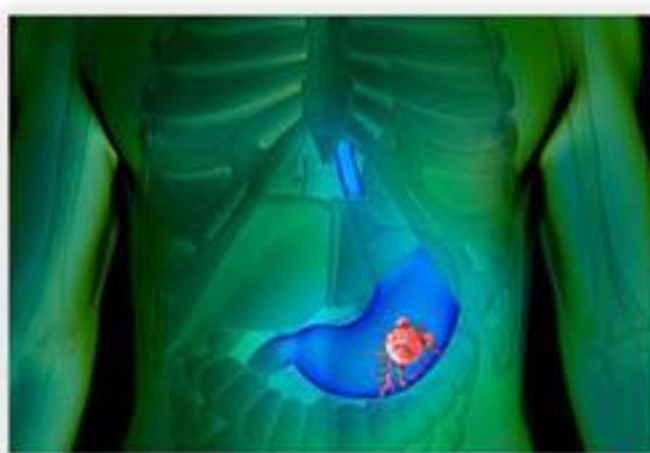
## DNMT3B Shapes the mCA Landscape and Regulates mCG for Promoter Bivalency in Human Embryonic Stem Cells. (*Nucleic Acids Res*, Jun 2019)

Studies have shown that DNMT3B, also known as a de novo DNA methyltransferase, interacts with histones via its histone-interacting domain (PWWP). However, the mechanistic function remains largely unknown. By conducting an analysis on ChIP-seq experiment in human embryonic stem cells (hESC), research team helmed by Prof. Daniel Tenen found that DNMT3B, CA methylation (mCA) and H3K36me3 share the same genomic distribution profile. Through this study, they established that DNMT3B is crucial for shaping the mCA landscape and maintaining the fidelity of the bivalent promoters in hESCs.



## FBXW5 Promotes Tumorigenesis and Metastasis in Gastric Cancer via Activation of the FAK-Src Signaling Pathway. (*Cancers (Basel)*, Jun 2019)

In this study on gastric cancer, Dr. Yong Wei Peng and his team studied the role of F-box/WD repeat-containing protein 5 (FBXW5) in the regulation of tumorigenesis and metastasis and its effect on the FAK-Src pathway. They not only confirmed the tumorigenic potential of FBXW5 but they also identified a novel pro-metastatic role. Their findings underscore a contributory role of FBXW5 to an aggressive tumour phenotype in gastric cancer and warrant further validation regarding its potential as a therapeutic strategy.



## A HEARTFELT THANK YOU TO OUR DONOR, MR SIM CHEE MENG.

CSI Singapore would like to extend a heartfelt thank you to our donor, Mr Sim Chee Meng for his giving. Mr Sim's contribution will go towards supporting the Translational Exchange (TRES) Club. The TRES Club is a joint initiative between the Cancer Science Institute of Singapore (CSI) and the National University Cancer Institute, Singapore (NCIS) to facilitate the development of true collaborative projects.

