CANCER SCIENCE INSTITUTE OF SINGAPORE

IN THE SPOTLIGHT

Issue 75 I Apr-May 2020

NEWS & ACHIEVEMENTS

Congratulations to Dr. Takaomi Sanda on his promotion to Associate Professor!

Dr. Sanda joined CSI Singapore in 2013 as a Principal Investigator. Since then, he has achieved an impressive track record in his research studies, which mostly focus on T-cell acute lymphoblastic leukemia (T-ALL) and other lymphoid malignancies. Please join us in congratulating Dr. Sanda on his remarkable achievement and we wish him every success in his career!.

read more >>>

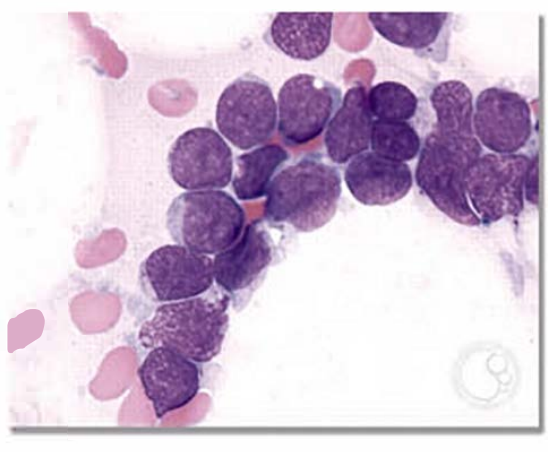
Targeting Codon 158 p53-mutant Cancers via the Induction of p53 Acetylation. (*Nat Commun*, Apr 2020)

In this interesting study, research team helmed by Prof. Goh Boon Cher and Dr. Kong Li Ren studied the oncogenic gain-of-function (GOF) mechanisms of p53 codon 158 (Arg158) mutation, a recurrent point mutation that is under-researched compared to other mutp53 hotspots. The team elucidated a unique pathway of mutp53 that can be exploited therapeutically, providing a cogent basis for further clinical development.

read more >>>

Oncorequisite Role of an Aldehyde Dehydrogenase in the Pathogenesis of T-cell Acute Lymphoblastic Leukemia. (*Haematologica*, May 2020)

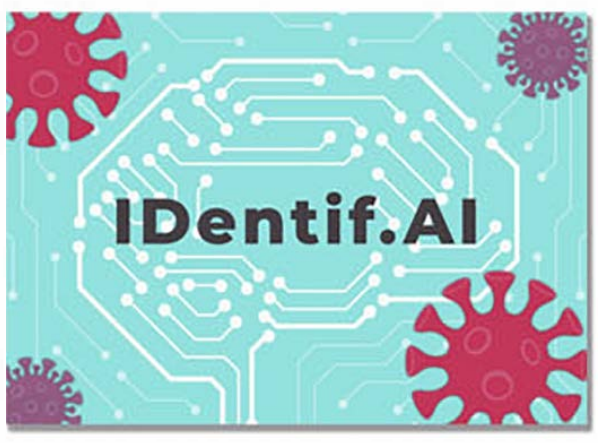
One of the Aldehyde dehydrogenases (ALDHs) family genes, ALDH1A2 is found to be aberrantly expressed in more than 50% of T-cell acute lymphoblastic leukemia (T-ALL) cases. Fascinating research led by A/Prof. Takaomi Sanda has yielded important clues about the molecular function and role of ALDH1A2 in T-ALL. Results demonstrated that ALDH1A2 protects against intracellular stress and promotes T-ALL cell metabolism and survival. In addition, the group established that ALDH1A2 overexpression enables leukemic clones to sustain a hyper-proliferative state driven by oncogenes.



read more >>>

IDentif.AI: Artificial Intelligence Pinpoints Remdesivir in Combination with Ritonavir and Lopinavir as an Optimal Regimen Against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2).

Joining the fight against Covid-19, A/Prof. Edward Chow was recently involved in an impactful study led by Prof. Dean Ho. The team reported the use of Identif.AI, a platform that rapidly optimizes infectious disease (ID) combination therapy design using artificial intelligence. Results revealed that the optimal combination therapy against SARS-CoV-2 was comprised of remdesivir, ritonavir and lopinavir, which mediated a 6.5 fold improvement in efficacy over remdesivir alone. In addition, Identif.AI was able to identify clinically actionable optimal drug combination within a short time frame. The robustness of Identif.AI opens up avenues for the development of effective treatment options for current and future outbreaks.



read more >>>

Cancer Science Institute of Singapore
National University of Singapore
Centre for Translational Medicine
14 Medical Drive, #12-01
Singapore 117599