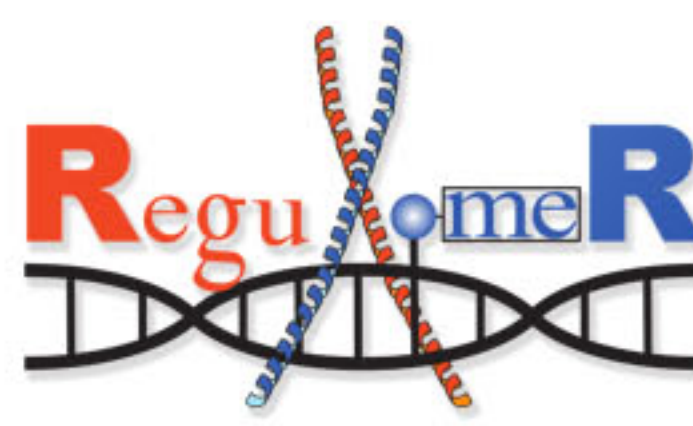


# CANCER SCIENCE INSTITUTE OF SINGAPORE IN THE SPOTLIGHT

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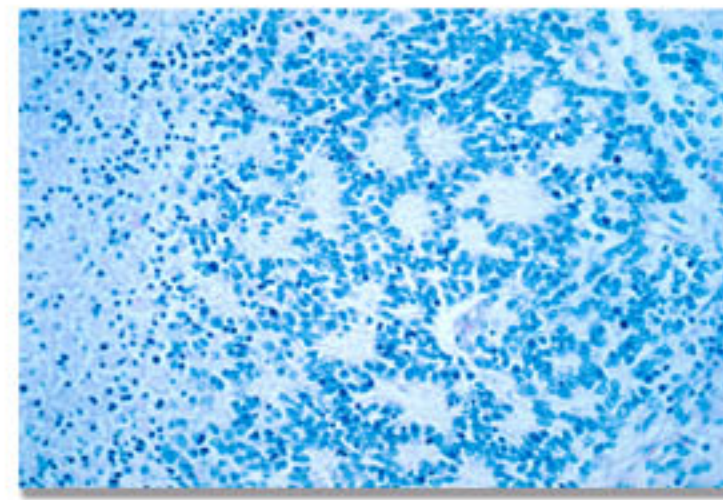
## TFregulomeR Reveals Transcription Factors' Context-Specific Features and Functions. (*Nucleic Acids Res*, Nov 2019)

Researchers from Dr. Touati Benoukraf's group have devised a new computational tool that enables the query and analysis of context-specific Transcription factors (TFs) modules according to cell type, tissue origin and disease state. TFregulomeR, an R-library linked to an up-to-date compendium of cistrome and methylome datasets, facilitates the analysis of context-specific transcription regulation, which will thus contribute to a better understanding of regulatory network-dependent TF functions.



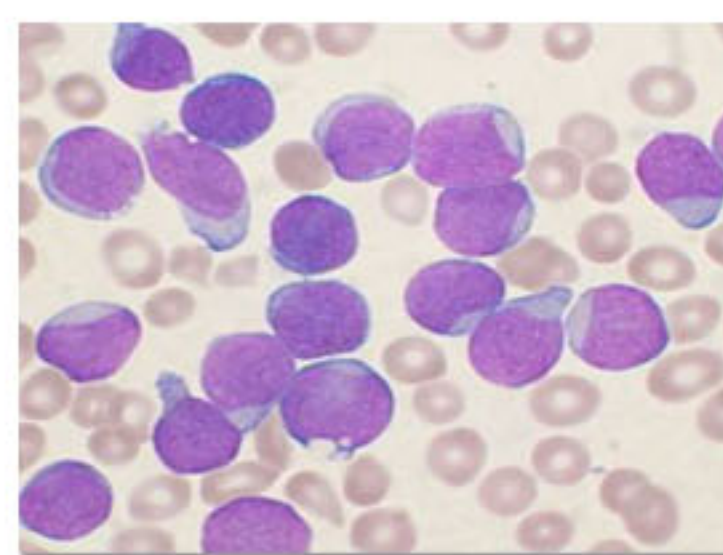
## ASCL1 is a MYCN- and LMO1-Dependent Member of the Adrenergic Neuroblastoma Core Regulatory Circuitry. (*Haematologica*, Dec 2019)

Although polymorphism within the LMO1 gene locus is found to be strongly associated with the susceptibility of children developing neuroblastoma, the mechanisms by which LMO1 contributes to adrenergic (ADRN) neuroblastoma remains largely unknown. Researchers from Dr. Takaomi Sanda's group revealed a crucial role of ASCL1 in core regulatory circuitry (CRC) neuroblastoma. While findings suggest the involvement of ASCL1 in neuroblastoma cell growth and arrest of differentiation, the group also established that ASCL1 and LMO1 directly regulate CRC genes expression, underscoring their role as a member and coregulator of the ADRN neuroblastoma CRC respectively.



## CircASXL1-1 Regulates BAP1 Deubiquitinase Activity In Leukemia. (*Haematologica*, Nov 2019)

ASXL1 (additional sex combs 1) contributes to the activation of BRCA-1 associated protein 1 (BAP1), which leads up to impaired HSC differentiation and leukemogenesis. Recent studies have highlighted the importance of a balanced ASXL1-BAP1 axis in normal haematopoiesis. In this novel research led by Dr. Sudhakar Jha, the group yielded important clues about the functions of ASXL1 circular RNAs in the regulation of BAP1 activity, holding promise for improved therapeutic option especially in myeloid malignancies with ASXL1 mutations.



## IN THIS ISSUE

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CircASXL1-1 Regulates BAP1 Deubiquitinase Activity In Leukemia

## UPCOMING EVENTS

CSI Seminar  
George A. Calin  
8 Jan 2020

CSI Research Meeting  
10 Jan 2020

CSI Seminar  
Jean-Baptiste Vannier  
16 Jan 2020

CSI Research Meeting  
31 Jan 2020

## SAVE THESE DATES!

