



# ZIHP Special Seminar

Monday, August 28, 2017, 16:00 h

University of Zurich, Irchel

Seminar room Y23 K52

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## **Deregulated calcium pathways in platelet precursor cancers**

Mutations in a calcium binding protein called Calreticulin are present in approximately 30% of human patients with certain chronic megakaryocytic cancers; however, their role in cancer development remains unclear. Our lab examines calcium pathways in megakaryocytes and platelets to elucidate mechanisms of disease development. We often modulate glutamate-activated NMDA receptors that have been under-studied in these cells but good drug targets. This seminar will present some of our most recent results indicating that calcium influx facilitates maturation of normal megakaryocytes but the same pathway is subverted in leukaemic cells to increase proliferation. Inhibition of calcium influx through the receptor redirects leukaemic cells into differentiation, suggesting potential for therapeutic modulation that warrants further testing. We are now planning a patient study to determine patterns of calcium deregulation associated with pre-malignant and malignant platelet precursor disorders.

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