87th WPI IIIS Seminar

& 2nd Tsukuba Life Science Innovation Seminar

Molecular regulation of subventricular zone neurogenesis in homeostasis and cancer

Quiescent tissue specific stem cells become activated to generate rapidly proliferating transit amplifying progenitors (TAPs). The mechanisms maintaining neural stem cell (NSC) quiescence versus TAP proliferation remain unclear. We hypothesized that distinct epigenetic complex subunit expression and molecular targeting segregates their function in NSC versus TAPs. Our work reveals distinct Eed expression, molecular targets and functions upstream in the SVZ lineage from Ezh2, and provides novel targets for clinical therapeutics. How can this normal homeostasis be disrupted? Isocitrate dehydrogenase 1 R132H mutations drive the growth of human gliomast and to model this disease, we conditionally expressed *Idh1*^{R132H} in the subventricular zone (SVZ) of the adult mouse brain. This mouse model shows that the *Idh1*^{R132H} mutation drive a gliomagenic phenotype in the major adult neurogenic stem cell niche.

Speaker: **Dr. Francis Szele**

Department of Physiology Anatomy and Genetics,
Medical Sciences Division, University of Oxford, UK

Date: Friday, September 16, 2016
Time: 12:00 - 13:00
Venue: 1F Auditorium, IIIS Building
University of Tsukuba

☆ Light refreshments will be served.

*Note: This is a joint seminar between IIIS and T-LSI.

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