Seminar/Talk

Biochemistry Illustrated: Observing signaling enzymes in their natural habitat

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Host: Martin Loose

Signaling networks orchestrate cellular responses to signals from the environment. To ensure the fidelity of these responses, the cells need to precisely position signaling enzymes at specific compartments and provide mechanisms to trigger and quench their activities in time. Yet, the details of cellular biochemical architecture and coupling between the location and regulation of signaling enzymes are not well understood.Using the most recent results from the lab, published last year in Molecular Cell and JCB, Ivans talk will illustrate how a combination of in vitro biochemistry, microscopy and fluorescence (cross-)correlation spectroscopy (FCS/FCCS) shed light on regulation of the protein kinase Akt and its activating complex mTORC2 in cells. The results from Ivans lab demonstrate that the activities of Akt and mTORC2 in cells are limited to cellular membranes, ensuring that they remain proportional to the upstream signals. Ivan will further discuss the principles of regulation of cellular enzymatic networks.References:* Ebner et al PI(3,4,5)P3 Engagement Restricts Akt Activity to Cellular Membranes (2017) Molecular Cell 65: 416-431* Ebner et al Localization of mTORC2 Activity In Cells (2017) J Cell Biol 216: 343-353* W: yudushkinlab.org

Tuesday, February 6, 2018 11:00am - 12:00pm
Mondi Seminar Room 2, Central Building

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.