ACKR4!? What a nice receptor like you is doing in places like these?

Antal Rot (Queen Mary University of London)

Host: Michael Sixt

Chemokines and their receptors form signalling networks that control many physiological and pathological processes. Chemokines trigger G-protein coupled receptors (GPCRs) to induce intracellular signalling cascades resulting in diverse cellular responses, most notably, directed cell migration. Chemokines also bind to atypical chemokine receptors (ACKRs) that are structurally homologous to GPCRs, but do not couple to G-proteins and fail to trigger the full spectrum of downstream signalling. Nevertheless, ACKRs play unique roles as they modify the distribution of chemokines in tissue microenvironments and thus affect their functions. ACKR4 is a paradigmatic atypical receptor binding three key homeostatic lymphoid chemokines, CCL19, CCL21 and CCL25, which are scavenged following their ACKR4 binding. Accordingly, ACKR4 is expressed in the primary and secondary lymphoid organs where it was shown to pattern chemokine distribution. We found recently that, in addition to the lymphoid organs, ACKR4 is expressed in a multitude of organs and tissues by diverse discrete subsets of cell populations. Such different and surprising tissue patterns of ACKR4 expression suggest new in part organ-specific functions of this receptor.

Thursday, October 25, 2018 02:00pm - 03:00pm
IST Austria Campus Mondi Seminar Room 2, Central Building

This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: http://ist.ac.at/fileadmin/user_upload/pdfs/IST_shuttle_bus.pdf The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.