



UNIVERSITY
OF WARSAW

CeNT CENTRE
OF NEW
TECHNOLOGIES

invites to a seminar by

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Novel signalling pathways controlling T cell adhesion and migration

10th of May, 2018 at 12 p.m.

Venue: Centre of New Technologies, Banacha 2C,
Lecture Hall 0142 (Ground floor)

Host: Agnieszka Chacińska

Adhesion and migration of T cells are controlled by chemokines and by adhesion molecules, especially integrins, and have critical roles in the normal physiological function of T lymphocytes. Using an RNA-mediated interference screen, we identified the WNK1 kinase as a regulator of both integrin-mediated adhesion and T cell migration. We found that WNK1 is a negative regulator of integrin-mediated adhesion, whereas it acts as a positive regulator of migration via the kinases OXSR1 and STK39 and the ion co-transporter SLC12A2. WNK1-deficient T cells home less efficiently to lymphoid organs and migrate more slowly through them. Our results reveal that a pathway previously known only to regulate salt homeostasis in the kidney functions to balance T cell adhesion and migration.