CMMC RESEARCH FOR HEALTH

INVITATION
CMMC SEMINAR

Prof. Dr. Ulrich Tepass

Dept. of Cell & Systems Biology
University of Toronto, CA

Mitotic polarity oscillation promotes epithelial tumor progression

Prof. Ulrich Tepass is a developmental and cell biologist whose research has shaped our understanding of epithelial polarity, morphogenesis and tumorigenesis. His discoveries, including the identification of the Crumbs complex as a key regulator of epithelial polarity, have had a major impact on developmental biology and cancer research.

In his talk Prof. Tepass will present new findings on how mitotic polarity oscillation affects epithelial development and tumor progression. His research shows that the Crumbs complex is transiently lost from the membrane during mitosis and that morphogenetic stress from mitosis, ingression and intercalation determines the requirement for Crumbs. He will discuss how increased cell division in morphogenetically quiet epithelia promotes tissue overgrowth and tumor progression. Conversely, he reports that reduced cell division restores polarity in neoplastic tumor models. Together, these findings reveal a feedforward mechanism identifying a link between cell division and loss of polarity as a key driver of epithelial cancer.

June 02, 2025
02.00 p.m.

TRIO Seminar Room
CMMC Research Building
Robert-Koch-Str. 21, 50931 Cologne

Host:
Prof. Dr. Andreas Wodarz
Inst. I of Anatomy and CMMC

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