



Module A - Cancer Biology 2026

Cell biology

Instructors

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Date Thursday, October 29, 2026

Course Venue Irchel Campus, Y25 H-26, Winterthurerstrasse 190, 8057 Zürich

General Outline

08.00 – 10.00	Introduction to microRNA biology and therapeutics (Jan Krützfeld) Cooperativity of microRNA clusters and families in cancer formation (Jan Krützfeld)
10:00 - 12:00	Cell signalling: relaying sets of instructions (Jana Krietsch) Cell-cycle and DNA Damage signalling in cancer development and treatment (Jana Krietsch)
12.00 – 13.00	<i>lunch break</i>
13:00 – 15:00	Epigenetic (de)regulation in pediatric cancer (Joana Graca Marques)

Learning outcomes

- Students will be able to describe microRNA generation and function, will understand the concept of using microRNA as therapeutic target and will use their knowledge to critically discuss the function of microRNA in cancer formation
- Students will get familiar with general concepts in cell signaling and be taught about DNA damage signaling and the cell cycle in the context of cancer development and treatment.
- Students will get acquainted with the basic mechanisms of epigenetic regulation and develop an understanding of how epigenetic deregulation contributes to tumorigenesis in pediatric cancers as well as learn how the epigenome can be exploited for therapy.