



University of
Zurich^{UZH}

ETH zürich

PhD Program in Cancer Biology

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c/o Institute of Molecular Cancer
Research
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Module A - Cancer Biology 2023

Cell biology

Instructors

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Date Thursday, November 2, 2023
Course Venue Irchel Campus, Y17 K11, Winterthurerstrasse 190, 8057 Zürich

General Outline

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

Learning outcomes

- 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 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
- Understanding the physical and biological causes and consequences of oxygen distribution in cultured cells and solid tumors