



University of
Zurich^{UZH}

ETH zürich

PhD Program in Cancer Biology

University of Zurich
c/o Institute of Molecular Cancer
Research
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Tumors and the Immune System 2024

High dimensional profiling of tumor microenvironment

Instructors

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Date Thursday, April 11, 2024

Course Venue UZH City Center
Morning: Rämistrasse 71, KOL H-321
Afternoon: Schönbergstrasse 1, SOF E-17

General Outline

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|---------------|--------------------------------------------------------------------------------------------------------|
| 09:00 – 10:15 | The immune composition of tumor microenvironment (Karina Silina) |
| 10:30 – 11:45 | Multispectral microscopy and quantitative pathology analysis of tumor microenvironment (Karina Silina) |
| 11:45 – 13:00 | <i>Lunch</i> |
| 13:00 – 14:15 | Role of the immunosuppressive microenvironment in immunotherapy (Chiara Magnani) |
| 14:30 – 15:45 | Single cell transcriptomic and spectral flow cytometry (Chiara Magnani) |

Learning outcomes

Understanding of basic principles of tumor heterogeneity and immune microenvironment and theoretical knowledge of multiparameter immunostaining and multispectral microscopy. Students will get an overview of: i. the intrinsic mechanisms that prevent effective immunotherapies, ii. the most promising strategies to prevent tumor escape, iii. the use of single cell techniques to unravel the complexity of the cancer microenvironment.