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Coordinators: Prof. D. Stroka and Prof. M.P. Tschan

The Tumor Biology curriculum will be embedded in the Graduate School for Cellular and Biomedical Sciences of the University of Bern (GCB) and will benefit from the existing Bern Cancer Research Cluster (BCRC) network. PhD students registered to the program will benefit from:

- basic knowledge in molecular and cell biology, as well as advanced cancer research methods and concepts from the 20 cancer research groups currently participating in BCRC activities. These cancer research groups are part of 8 different Departments and Institutes at the University of Bern (DBMR, Institute of Pharmacology, Medical Oncology, Institute of Pathology, Institute of Anatomy, Vetsuisse, TKI and the Department of Nuclear Medicine).
- an overview of the diverse cancer research projects and approaches performed at the Inselspital and the University of Bern.
- The opportunity to present unpublished data and discuss their PhD projects in a “protected”, friendly environment with many other PhD students, postdocs and PIs at the University of Bern during the weekly BCRC progress reports. This format allows students to present recent advancements, or technical obstacles, and obtain suggestions or scientific advice.
- a platform to practice talks for international meetings, or for Master’s thesis presentations, GCB midterm evaluations or PhD thesis defenses in front of an expert audience.
- a monthly „lunch“ BCRC journal club to discuss novel publications/trends and to network.
- free participation at the annual BCRC retreat to learn about the latest cancer research projects in Bern and to talk with more advanced scientists in the field.
- a series of lectures and workshops organized by BCRC members and partners.

The Tumor Biology curriculum is embedded in already existing lectures in the field of tumor biology, translational cancer research and bioinformatics.

The program is divided in two sections (10 ECTS total): a basic module with mandatory courses (4 ECTS) and an elective module (4 ECTS advanced electives, tumor biology related and 2 ECTS advanced electives, preferably not Tumor Biology related) allowing the students to choose courses and set a focus on specific topics considered advantageous to the individual PhD projects. Additionally,

Mandatory courses (4 ECTS):

Out of the mandatory 6 ECTS being needed for achieving a PhD from the GCB, the PhD students of the Tumor Biology specialization can acquire 4 ECTS from the basic tumor biology courses described below. The “Topics in Tumor Biology” lecture is mandatory to ensure that all students have a basic knowledge in the field that allows them to benefit from the rest of the program. In case the “Topics in Tumor Biology” lecture has been taken during the Master education of the respective PhD student, this student will choose in consultation with the coordinators suitable courses from the elective modules allowing him or her to score 4 ECTS as a basic education. The annual BCRC retreat is mandatory for PhD students with the specialization Tumor Biology.

- Topics in Tumor Biology (3 ECTS)
- Translational Cancer Research: Crosstalk in Academic, Clinical and Pharmaceutical Cancer Research: Willing to improve? (3 ECTS)
- Introduction to R (2 ECTS)

Elective modules (4 ECTS):

For the specialized education in Tumor Biology, each student will choose courses from the elective modules to obtain another 4 ECTS.

- Monthly BCRC Journal Club (1 ECTS)
- Weekly BCRC Progress Report (2 ECTS)
- Annual BCRC Retreat (0.5 ECTS; attending and presenting)
- Concepts and Methods in Programmed Cell Death and Autophagy (1 ECTS; attending and presenting)
- Cell Migration (2 ECTS)

The additional specialization of the Tumor Biology PhD program will be honored with a certificate supplementing the PhD degrees to be awarded by the University of Bern according to the regulations of the GCB.

We highly encourage PhD students of the University of Bern with a research interest in cancer to enroll in this program as they will definitely profit from this special education.

Yours sincerely,

Prof. D. Stroka

Prof. M. P. Tschan