



Graduate School
for Cellular and
Biomedical Sciences



^b
**UNIVERSITÄT
BERN**

GCB PhD Specializations



GCB PhD Specializations

Overview

Within the framework of the GCB PhD Program, six PhD Specialization Programs are offered. Participants acquire ECTS in the specialization which will be listed as a separate achievement on the diploma supplement, thus complementing their PhD degree.

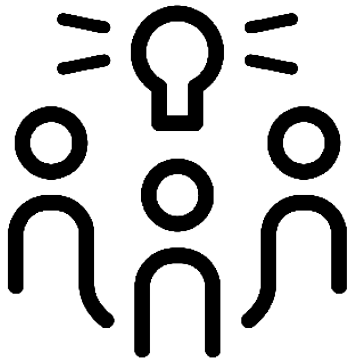


Cutting Edge Microscopy (CEM)

The [Cutting Edge Microscopy \(CEM\)](#) specialization for PhD students of the [Graduate School for Cellular and Biomedical Sciences \(GCB\)](#) offers an interdisciplinary training program to become world-class biological imaging professionals. The unique and interdisciplinary framework created by the [Microscopy Imaging Center \(MIC\)](#) of the University of Bern provides the necessary infrastructure and expert knowledge. During the CEM program, PhD students benefit from annual summer schools, study trips, specialized courses, conferences, and a dedicated lecture series. Regular student meetings strengthen the networking among the junior microscopists and support the exchange experiences. Upon graduation participants in the CEM program will develop into life science researcher with an in-depth understanding of advanced microscopy and image analysis. The CEM PhD specialization program educates young researchers with the ability to bring innovative approaches to academia and industry, bridging an exciting knowledge gap among life sciences and advanced microscopy experts.

More information:

[Cutting Edge Microscopy PhD Program](#)

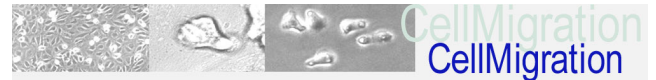


Stem Cells and Regenerative Medicine (SCRM)

SCRM launched in August 2018, is jointly offered by the GCB and the Platform for Stem Cells in Regenerative Medicine (SCRM). The program aims at fostering a new and innovative multidisciplinary approach to unravel the communication network of cells within the tissue and throughout the body during tissue regeneration.

More information:

[Stem Cells & Regenerative Medicine PhD Program](#)



Cell Migration

The PhD Program Cell Migration started as an [SNSF-supported ProDoc program](#) on October 1st, 2011. It has brought together a growing group of highly innovative and successful Swiss research groups in the field of cell migration in morphogenesis, immunosurveillance, inflammation and cancer. The presently participating institutions with their principal investigators bring together complementary scientific expertise and methodological skillsets in the field of cell migration that permit for embedding a cutting-edge Swiss training program on Cell Migration for highly qualified and motivated PhD and MD-PhD students in the fields of biology, biochemistry, (molecular) human and veterinary medicine, immunology, pharmaceutical sciences, chemistry, physics, bioinformatics and mathematics with a focus on life sciences.

More information:

[Cell Migration PhD Program](#)



Tumor Biology

The Tumor Biology curriculum is 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). More information:

To follow

New PhD Specializations



Cardiovascular Research PhD Program:

The Cardiovascular Research PhD Program will offer PhD or MD-PhD students the opportunity to receive indepth cardiovascular education and to complement their PhD degree with a special diploma supplement in Cardiovascular Research. As cardiovascular diseases are the leading cause of death globally, a greater understanding of cardiovascular physiology and pathophysiology is of utmost importance. Consequently, several teams of the University of Bern and of the Inselspital, Bern University Hospital are actively involved in research concerning the function and development of the heart, arteries and veins, as well as the mechanisms involved, in healthy and diseased states. This research ranges from fundamental science to pre-clinical and clinical studies; and relies on a multitude of diffe-

rent experimental models. To promote cardiovascular research teams in Bern as leaders in cardiovascular (patho) physiology and in the development of approaches to reduce disease burden, the Cardiovascular Research Cluster (CVRC) Bern was established in 2015 for all UniBE and Inselspital members with an interest in cardiovascular research. One of the CVRC's aims is to enrich the training environment of junior researchers. Another goal of the CVRC is to promote interactions and collaborations among clinical and fundamental cardiovascular research, which will be addressed with the development of this dynamic PhD Specialization option by incorporating students from the MD,PhD program.

More information: CVRC website: https://www.cvrc.unibe.ch/phd_program/ and on the University of Bern ILIAS platform Cardiovascular Research PhD Program.

Neuroscience PhD Program (from 2023)

The Neuroscience PhD specialization program supports training for GCB doctoral students in neuroscience during their doctorate. It includes a basic training in neuro-physiology, with an optional neuro-anatomy course, and provides an up-to-date teaching in current areas of neuroscience research and techniques through the [BENEFRI](#) Neuroscience Workshop and the BENEFRI Hands-on Workshop, respectively. The BENEFRI Neuroscience program is integrated into the Graduate School for Cellular Biology (GCB) Program, including the BENEFRI program between the University of Bern and the University of Fribourg. The theoretical and practical teaching are organized in the Universities of Bern and Fribourg and include external international-standing lecturers from Swiss or European academic institutions. GCB students who apply will be granted admission at the request of the doctoral student by the Program Committee of the Specialized Neuroscience Program consisting of two representatives from the Universities of Bern and Fribourg without any additional evaluation or selection of the doctoral students or their projects. The program is opened to students with background in Neuroscience including Neurology, Psychiatry, Physiology, Anatomy, Biology, Neuropsychology.

More information:

To follow

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