Molecular and Developmental Stem Cell Biology

Stem cells in biomedical research

In recent years the field of stem cell research has expanded rapidly worldwide. It is to be expected that this trend will continue to generate an important impetus for biomedical research and application also in future. This interdisciplinary master degree course is oriented to cutting-edge research and current markets. The course combines traditional basic disciplines such as cell biology, histology, biochemistry and pathology with recent progress in epigenetics, bioinformatics and developmental biology to secure a broad understanding towards innovative translational approaches in medicine.

Course structure and duration

- Targeted at excellent international students of the life sciences with a B.Sc. or comparable degree
- The final degree is a Master of Science
- The course will be taught in English.
- The program comprises four semesters, including a six-month master thesis
- Over 60% of the program are application oriented
- Based in the Medical Faculty of the Ruhr-University in Bochum

Profile of degree holders

- Detailed knowledge of the scientifically sound application and molecular processes involved in cutting-edge stem cell research
- Knowledge of the pathology of degenerative diseases, regenerative medicine and tissue engineering
- A comprehensive understanding and carefully considered approach to bioethical aspects.
- They have been trained to work in international, intercultural and interdisciplinary teams.
- Are ideally suited to start their career in the pharmaceutical industry, as well as in scientific institutes.
- Are qualified to continue with doctoral studies in life sciences or medicine.

Elective choice of labs

- Many courses are held on a rotation basis
- Students have a choice from more than 30 laboratories.
- The Lab Bench Project and Master Project can be carried out in international partner laboratories.

Cooperations

- University Alliance Metropolis Ruhr
- Stem Cell Network North Rhine Westphalia
- Aarhus University in Denmark
- School of Medicine of Tongji University in Shanghai
- Chinese-German Stem Cell Center of Tongji Medical College in Wuhan

For more information visit our website www.rub.de/iSTEM