

# Molecular and Developmental Stem Cell Biology

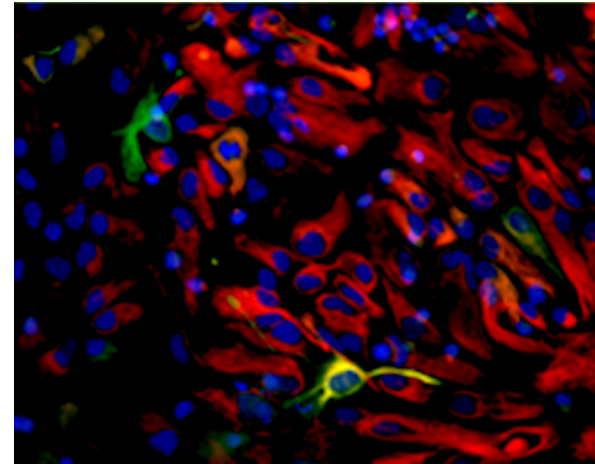
## Stem cells in biomedical research

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.

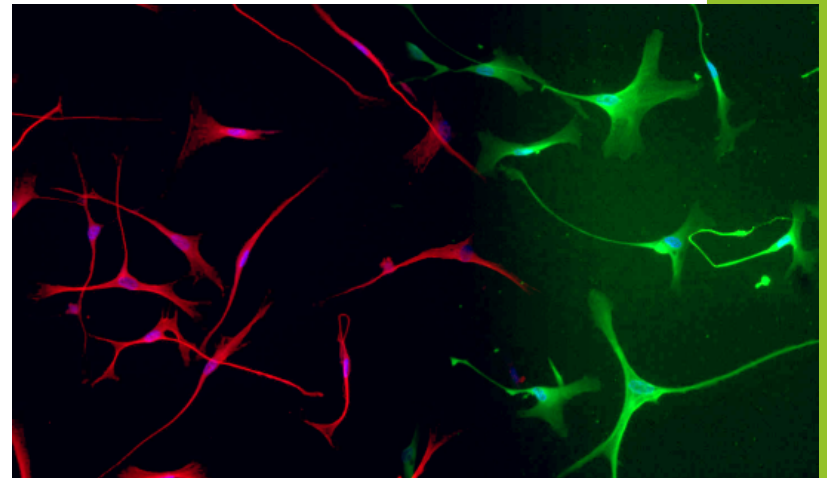


## Profile of degree holders

- 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**.

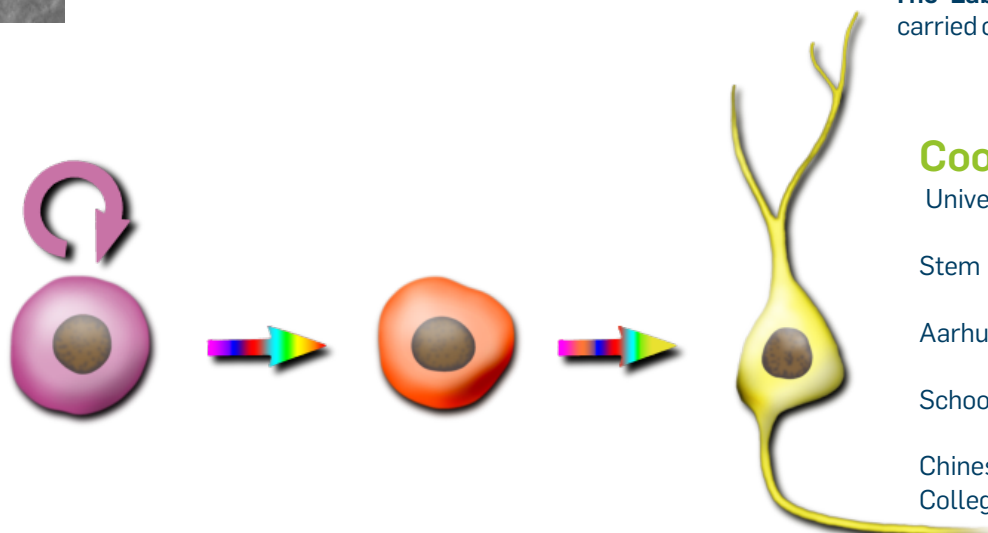
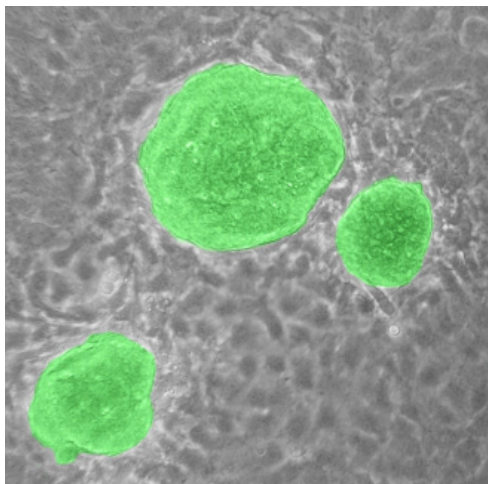


„This interdisciplinary master degree course is oriented to cutting-edge research and current markets“



## 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



## 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](http://www.rub.de/iSTEM)

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INTERNATIONAL MASTER PROGRAM  
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