

How to join the CLIB-Graduate Cluster

We invite applications from excellent graduates with a M.Sc. or Diploma in biology, chemistry, biochemistry, biotechnology, biochemical or chemical engineering or related disciplines. Students expecting to graduate within the next months are also encouraged to apply.

See our website for open positions and application instructions:
www.graduatecluster.net

Application calls

Nov/Dec for projects starting in April
Apr/May for projects starting in October

CLIB²⁰²¹ provides central coordination for the CLIB-Graduate Cluster and connects it with its industry and SME members.

The CLIB-Graduate Cluster is supported by the universities of Bielefeld, Dortmund and Düsseldorf and receives funding from the Ministry of Innovation, Science, Research and Technology of the German state of North-Rhine Westphalia.



Local contacts at the universities

CLIB-Graduate Cluster Bielefeld

Dr. Iris Brune
Center for Biotechnology (CeBiTec)
Bielefeld University
Universitätsstr. 27
D-33615 Bielefeld, Germany

CLIB-Graduate Cluster Dortmund

Dorota Pawlucka, MBA
TU Dortmund University
Faculty of Biochemical and Chemical Engineering
Emil-Figge-Str. 70
D-44227 Dortmund, Germany

CLIB-Graduate Cluster Düsseldorf

Dr. Sonja Meyer zu Berstenhorst
Heinrich-Heine-University Düsseldorf
Institute for Bioorganic Chemistry
Stetternicher Forst, Geb. 15.8
D-52426 Jülich, Germany

Central coordination unit

CLIB-Graduate Cluster
Dr. Tatjana Schwabe
c/o CLIB²⁰²¹
P.O. Box 26 01 04
D-40094 Düsseldorf, Germany



www.wiedemeier-kommunikation.de

DOCTORAL PROGRAMME

**Industrial
Biotechnology**



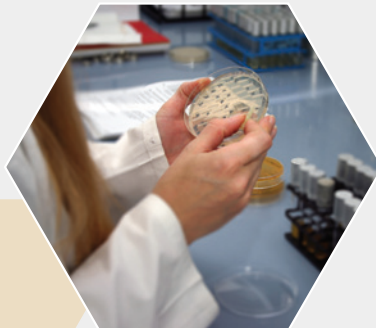
DOCTORAL PROGRAMME

Industrial Biotechnology

The CLIB-Graduate Cluster Industrial Biotechnology offers 3-year PhD scholarships in its structured doctoral programme. This joint initiative of Bielefeld University, the TU Dortmund University and the Heinrich-Heine-University Düsseldorf is located in NRW, the most populous state of Germany with an excellent research and industrial infrastructure.

Research projects in the graduate cluster span the range of industrial biotechnology, from essential genome analyses via protein expression and biocatalysis to product purification. Each university has different key competences:

- ⊗ Bielefeld University: Polyomics
- ⊗ TU Dortmund University: Biocatalysis and Downstream Processing
- ⊗ University of Düsseldorf: Expression and Biocatalysis



Polyomics: New technologies for genome- and meta-genome analysis are being developed and applied. Together with postgenome analyses such as proteomics and metabolomics, they achieve the rational development of production strains or optimise culture conditions. Within the cluster, the ideal infrastructure exists to facilitate interdisciplinary research, combining bioinformatics, molecular biology, biochemistry and biotechnology.

Expression: Protein expression is being optimised with advanced methods such as metabolomics and metabolic flux simulations. Molecular biology plays an important role in creating new expression systems and optimising protein secretion or cell surface display.

Biocatalysis: This focus aims at optimising the biotechnological synthesis of intermediates for complex chemical molecules either with isolated enzymes or with whole cells. Chemists, biologists and bioengineers collaborate to develop new and efficient biocatalysts.

Downstream Processing: Innovative technologies for downstream processing, for example separation mechanisms for biotechnological products, are being developed. Biochemical and chemical engineers work on new methods to analyse reaction mixtures, to purify products and on scale-up towards the industrial-scale production.

The 3-year doctoral programme

CLIB-Graduate Cluster students

- ⊗ join a network of excellent students
- ⊗ work in first-rate research facilities
- ⊗ gain an insight into the biotech industry
- ⊗ 3-month industrial internship as part of the programme
- ⊗ many projects have a direct link to industry
- ⊗ are full-time doctoral students at one of the three universities
- ⊗ receive a stipend of 1500 €/month
- ⊗ enjoy yearly retreats with all students and faculty
- ⊗ take part in key qualification courses including scientific writing and presentation skills
- ⊗ have access to exclusive courses for CLIB-students like lab workshops, courses in innovation management, project management and patent law