



Campus and City life

As the state capital of Northrhine-Westphalia Düsseldorf is situated at the heart of the lively Rhine-Ruhr metropolitan region and is counted among the five most important economic, political, cultural and travel centres in Germany. Not only is Düsseldorf the birthplace of famous artists like Robert Schumann, Heinrich Heine, Joseph Beuys or Wim Wenders, but the surrounding area has been known as a centre of humanistic science since the 16th century. Today, this area hosts four universities including Arts Academy and Heinrich Heine University.

Heinrich Heine University comprises five faculties (Mathematics and Science, Law, Medicine, Philosophy and Economics) and is the alma mater to over 35,000 students and 340 professors. In addition to excellent teaching and research, outstanding studying and living conditions in modern student residencies, a generous culinary selection on campus, and a wide range of sports and cultural activities.

The city of fashion and arts at the banks of the Rhine is well-known for its exclusive shopping boulevards like the Königsallee and the modern architecture in the Media Harbour. Further, Düsseldorf offers a versatile mix of leisure activities ranging from underground exhibitions to traditional locales such as the Deutsche Oper am Rhein, the Schauspielhaus theatre, or the arts collection NRW. Nightlife thrives in Düsseldorf. Every night venues host a selection of movies, concerts, and parties. Moreover, the Altstadt or "old town" is constantly teeming with people visiting the huge selection of nightclubs, discos, bars, and pubs.



Further Information | Contact

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iGRADplant

Graduate Program for Plant Science
in Düsseldorf, Germany

iGRADplant
is a joint graduate program between:

Heinrich Heine University Düsseldorf

Jülich Research Center

Michigan State University, USA



Research Focus of iGRADplant

Network, exchange, and training program to understand plant resource allocation (NEXTplant)

As sessile organisms plants have evolved to flexibly adjust their life strategies to fluctuating and frequently adverse environmental conditions. A given plant genotype allows for a broad range of phenotypes that are determined by complex interactions between environment and genotype.

The doctoral researchers will study the genotype-phenotype relationship in plants and develop models that predict how resources are allocated to growth processes, defence reactions, nutrient uptake and reproduction in selected photosynthetic model systems, at the levels of individual cells, organs, and whole organisms.

This interdisciplinary approach brings together an international group of computational, theoretical, and wet-lab biologists and that builds on extensive resources, platforms, and complementary expertise of the contributing partner institutions.

In order to achieve international research experience all PhD students in the iGRADplant program perform a six to nine month research stay at the Michigan State University, one of the leading universities of plant science in the USA.



Intensive Course Program

The iGRADplant program offers the opportunity to either enter with a Bachelor's degree (from BSc to PhD in 4 years) or a Master's degree (from MSc to PhD in 3 years).

Incoming students with a BSc degree will be initially trained in a structured one-year program. Throughout this qualification period, current topics in plant molecular biology, theoretical biology, statistics, computational biology, and synthetic biology will be taught in comprehensive lecture series and practical courses. Additionally, all students carry out three independent lab rotations in participating laboratories.

The iGRADplant program is part of the "iGRAD – Interdisciplinary Graduate and Research Academy Düsseldorf", which allows us to offer our PhD students a broad range of courses in "Transferable Skills".

The iGRADplant program offers:

- Excellent research facilities
- Supervision of your research project by a thesis advisory committee
- Interdisciplinary scientific training through lecture series, seminar courses and practical workshops
- International research experience through a 6-9 month research stay at Michigan State University
- Active participation in institute seminars and international conferences
- Training in "Transferable Skills" such as: scientific writing and presentation, grant writing, project management, career planning, etc ...
- All courses offered by the program will be taught in English

Applying

Application is open for students holding a Bachelor's or Master's degree (or equivalent) in biology, biochemistry, bioinformatics or related fields of study. A strong command of the English language is required. For further information, please visit our website: www.igrad-plant.uni-duesseldorf.de



Fellowships and Support

The program supports every student with a fellowship or position funded by the Deutsche Forschungsgemeinschaft (DFG). Students entering the program with a BSc degree receive a fellowship of € 800/month in the first year. For the subsequent three years, PhD students receive a position as doctoral researcher (50-65% EG13 TV-L, German civil service pay scale). The program will assist in all formal and legal affairs, such as visas, housing, health insurance and enrollment.

Faculty of iGRADplant

Faculty at HHU and Research Center Jülich

Ilka Axmann (Synthetic Microbiology)
Petra Bauer (Botany)
Oliver Ebenhöh (Quantitative and Theoretical Biology)
Michael Feldbrügge (Microbiology)
Wolf Frommer (Molecular Physiology)
Markus Kollmann (Mathematical Modelling of Biological Systems)
Martin Lercher (Computational Cell Biology)
Shizue Matsubara (IGS Phytosphere, Jülich)
Markus Pauly (Plant Cell Biology and Biotechnology)
Rüdiger Simon (Developmental Genetics)
Benjamin Stich (Quantitative Genetics and Genomics of Plants)
Andreas Weber (Plant Biochemistry)
Matias Zurbriggen (Synthetic Biology)

Faculty at Michigan State University

Christoph Benning (Biochemistry and Molecular Biology)
Federica Brandizzi (Plant Biology)
Brad Day (Biomolecular Science)
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