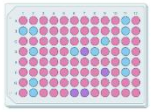
Jülich, 24th of June 2025

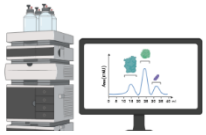
Thesis and/or internship in biocatalysis

The research group "Biocatalysis" builds complex products from renewable raw materials. For this purpose, they combine - in a modular way - enzymes that do not occur together in nature; and they design economically and ecologically efficient enzyme cascades. The advertised topic is part of the MSCA funded project "BiodeCCodiNNg", an international team collaborating across Europe. BiodeCCodiNNg is dedicated to decoding novel reaction chemistries in biocatalysis and training Europe's next visionaries for a sustainable future.

Particularly, we offer bachelor's students to do a **research internship** with us, which we would extend for their **bachelor's thesis** if suitable; and we offer master's students to do their **master's thesis**. You will tackle a specific aspect in enzymatic synthesis of two pharmaceutical precursors with high chemo- and stereoselectivity. Typical research targets include:



Identification or engineering of suitable enzymes



Development of analytical methods (HPLC, …)

Enzyme production

Reaction optimisation and process design

Scale-up and product isolation

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Currently, we are in the phase of identifying suitable enzymes so you would join us right from the start! Be invited to apply at a later point, too, and take over the project to tackle the next step (e.g. optimisation) as your research question. You will have the opportunity to independently plan, conduct, evaluate, and present your experiments. We do not expect you to know everything - you can rely on an introduction to the lab and relevant methods, as well as regular meetings to discuss your work. From our side, you can choose between German and English as thesis language.

Location of the lab: Forschungszentrum Jülich GmbH, IBG-1

Your profile:
Required qualifications:
* Student in a related field
* Interest or background in synthetic biology, biocatalysis, process development, and chemistry
Further desired qualifications: Independent and analytical work style, structured approach

Please apply for the position even if you do not have all the required skills and knowledge. We may be able to teach you missing skills during your induction.

Our Offer:
You will become a part of the research group of Prof. Dr. Dörte Rother, group head "biocatalysis". We support you with:
* An interesting and socially relevant topic for your internship/thesis with future-oriented themes
* Ideal conditions for gaining practical experience alongside your studies
* An interdisciplinary collaboration on projects in an international, committed and collegial team
* Excellent technical equipment and the newest technology
* Qualified support through your scientific colleagues
* Flexible working hours and the possibility to do home office
* A large research campus with green spaces, offering the best possible means for networking with colleagues and pursuing sports alongside work

Further information on the project is available at: https://biodeccodinng.eu/

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