

The **Research Center for Pharmaceutical Engineering (RCPE)** is a global leader in pharmaceutical engineering sciences. We help our partners to create and manufacture advanced medicines for patients around the world, through optimizing products and processes.



FOR OUR AREA CCFLOW  
WE ARE OFFERING A

# PAID DIPLOMA/ MASTER'S THESIS

## FLOW CHEMISTRY AND MACHINE LEARNING

To dedicated students of **chemistry, chemical engineering, pharmaceutical engineering** or related disciplines, we offer an opportunity to write a paid Diploma/Master's thesis. The project is conducted in close cooperation with the **Institute of Chemistry at the University of Graz**.

### OBJECTIVE:

Flow chemistry is a vital tool for modern data-rich experimentation. Automated flow reactors can be set up to capture large quantities of data within a short space of time, often unattended, to **understand, optimize and discover** chemical reactivity. To achieve this, reactors require the correct hardware (reactor, pumps and auxiliary equipment), alongside advanced modelling and data processing techniques, such as machine learning algorithms. This project aims to:

- Explore **pharmaceutically-relevant** reactions using **automated reactor platforms**
- Further develop and integrate machine learning-based **optimization algorithms** for organic synthesis

### WITHIN THE FRAMEWORK OF THIS DIPLOMA/ MASTER'S THESIS WE OFFER THE FOLLOWING:

- Extensive participation in a top-level and industrially relevant research project in an international environment
- Supervised training in the task
- Assistance of experienced staff with the implementation of innovative ideas
- Access to highly modern infrastructure on campus of University of Graz
- Assistance with the publication of results
- Adequate compensation and opportunities for personal and professional development

### FINANCING:

- Compensation on the basis of a service contract

IF YOU ARE INTERESTED IN WRITING YOUR THESIS AT THE INTERFACE BETWEEN UNIVERSITY RESEARCH AND INDUSTRY/ BUSINESS AND TO CONTRIBUTE TO THE OPTIMIZATION OF PRODUCT AND PROCESS DEVELOPMENT IN THE PHARMACEUTICAL INDUSTRY, PLEASE CONTACT US INDICATING THE REFERENCE NUMBER.

### Contact:

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