

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

## PAID DIPLOMA / MASTER'S THESIS

# CO-PROCESSED SYSTEMS FOR INHALATION – BIOLOGICAL EFFECTS IN THE LUNG

Ref. No. DA190

To dedicated students of Pharmaceutical Engineering, Biochemistry, Biotechnology, Microbiology or related disciplines.

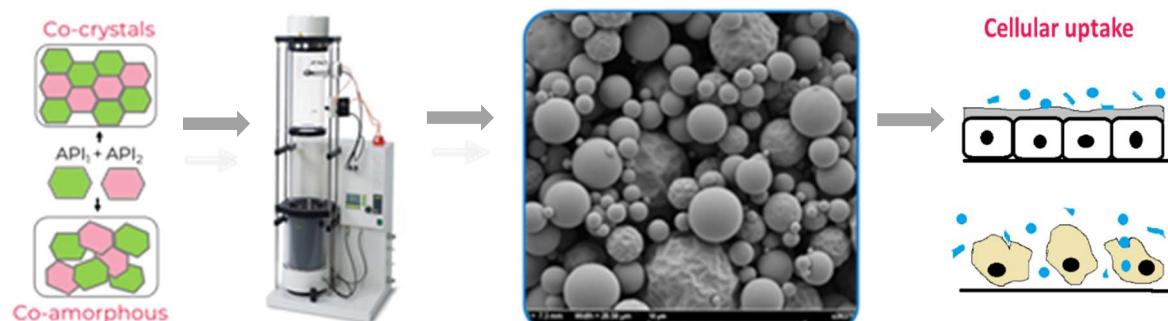
## Objective

This project will evaluate the biological effects of new co-processed particles for inhalation (co-amorphous and cocrystalline drug-drug combinations) in the lung. These new formulations will be compared with pure crystalline drug substances to demonstrate the advantages of co-processed systems.

Tests will be performed at the Medical University and will include the following:

- Cytotoxicity of the formulations
- Permeability
- Uptake by common alveolar or bronchiolar lung cell lines

Another part of this work will involve testing the in vitro aerosolization performance of the new co-processed particles using impactors or dissolution setups.



## 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 Graz University of Technology
- Assistance with the publication of results

## 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 apply directly via our website.

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