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.

For our team / area Science of Quality we are looking for an active, highly qualified (m/f/x)

# **SCIENTIST**

## **Computational Fluid Mechanics**

PhD possible Ref.No SK114

#### **Duties and responsibilities**

Develop and apply simulation methods for freeze drying (lyophilization) processes, including equipment- and vial-scale CFD (computational fluid dynamics) models as well as reduced-order models and digital twins based on those simulations. Activities will focus on the improvement and development of simulation methods that take into account the elements of freeze-drying processes, including:

- o Developing competence in fluid mechanics
- o Learning numerical methods and computational fluid dynamics
- o Setting up, performing and analyzing computational fluid dynamics models for rarified multi-component flow
- Developing reduced-order models based on results from computational fluid dynamics simulations
- o Actively participating in project teams and scientific networks
- o Writing project reports and publishing research in reputed journals
- o Presenting results at internal meetings and at international conferences with partners and colleagues

#### Requirements

- A technical or natural scientific MS degree (e.g. chemical engineering, mechanical engineering, mathematics, physics, ...) and interest in pursuing a PhD degree
- Knowledge in CFD modeling as well basic knowledge in programing languages (Phyton, C++) as an advantage
- Interest in performing research at the interface of basic science and industrial application
- Professional conduct and communication skills in dealing with international clients, partners and colleagues
- Interest and experience in performing top-level and target-oriented research at the interface of basic science and industrial application

### We offer

- A multidisciplinary and dynamic research environment and access to highly modern infrastructure on campus of Graz University of Technology
- Opportunities for career development at the academic and industrial level
- A competitive salary (min. € 42.000,- gross/year, overpayment depending on qualification possible).
- Possibility to work part-time

At RCPE, we place a strong emphasis on promoting diversity and inclusion.

We are also committed to encouraging women to explore opportunities within our technical environment. We actively encourage applications from women and, when candidates possess equivalent qualifications, we give preference while considering all relevant aspects and circumstances of all applications.

We are looking forward to receiving your application, indicating the ref. no., and including a cover letter, your CV, publication record and credentials.

#### Contact



