

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.



WE ARE LOOKING FOR AN ACTIVE, HIGHLY QUALIFIED

SENIOR SCIENTIST (M/F/X)

MOLECULAR MODELING AND SIMULATION
REF. NO. SK80

DUTIES AND RESPONSIBILITIES:

- Apply state-of-the-art molecular simulation technologies, both classical and/or DFT based approaches, to establish properties and understand/predict the behavior of materials related to pharmaceutical formulations and drug delivery. (e.g. the estimation of tribo-electrification, transition state energies, interaction energies and molecular mobilities in the amorphous phase, homology modelling and molecular dynamics simulation of proteins or nucleic acids)
- Develop new scientific ideas, methods and technologies
- Actively participate in project teams/ meetings/ scientific networks
- Report and present scientific/ technical results and contribute to publications & presentations

REQUIREMENTS:

- A PhD in a field related to the tasks of the project (theoretical chemistry, bio-physics, or chemical engineering)
- Experience in the use of molecular simulation at various levels of theory (ab-initio/DFT, molecular mechanics and dynamics, coarse grained simulations) applied to organic crystals, polymers, proteins, lipids, nucleic acids etc.
- A good background in physical chemistry, statistical mechanics, and related fields
- A good working knowledge of at least one programming and/or scripting language that is commonly used in this field (C, C++, python, perl etc.)
- You are familiar with Unix/Linux systems, and you can navigate on the command line
- Ideally you are familiar with advanced simulation methodologies, such as extended ensemble techniques or metadynamics, have experience in the optimization of classical empirical force fields, and/or have experience in applying ab-initio methods for calculation of bulk material properties
- 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
- Good English language skills, written and spoken

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. €49.000,- gross/year, overpayment - depending on qualification - possible)

WE ARE LOOKING FORWARD TO RECEIVING YOUR APPLICATION BY INDICATING THE REF. NO. AND INCLUDING A COVER LETTER, YOUR CV, PUBLICATION TRACK RECORD AND CREDENTIALS!

Contact:

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LEADING PHARMA INNOVATION

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