

HELMHOLTZ MUNICH

2x BSc / MSc Positions

Innovate with Us on the Future of AI-Driven Aerosol Drug Delivery

Are you ready to be part of a research team pushing the boundaries of drug delivery with cutting-edge technology? We're seeking two motivated BSc / MSc candidates to join a project focused on developing the **next generation of aerosolized drug carriers** through advanced computational design and AI.

What you'll be working on:

POSITION 1

In vitro screening and development

Innovate in Aerosolized Drug Carrier Design

Develop advanced carriers that enhance solubility, distribution, stability and targeting of drugs over the lungs.

In Vitro Screening with Advanced Tools

Use state-of-the-art screening technology to evaluate the performance and effectiveness of drug carriers.

Toxicity & Therapeutic Evaluation on Human Cellular Models

Conduct essential testing to assess safety and therapeutic effects on human cellular models.

POSITION 2

AI and Computational Design

Virtual Screening & de novo Design

Use modern cheminformatics and AI-based models to design novel drug carriers.

Advanced Predictive Modelling

Apply Graph Neural Networks, descriptor-based models, and NLP for data analysis and accurate predictions.

Early-Stage Safety Modelling

Use of predictive toxicity models to ensure safety and efficacy from the earliest stages of design.

Why these positions stand out:

- ✓ **Entrepreneurial potential:** This project offers unique opportunities to translate research from the lab to a startup company, offering an exciting chance to see your work transition from lab to market.
- ✓ **Innovative, multidisciplinary team:** Work alongside leaders in pharmaceutical technology, lung research and computational science.
- ✓ **Skill development in high-demand areas:** Get hands-on experience in emerging fields such as next generation inhalation therapy and AI-driven drug discovery in pharmaceutical applications.

If you're motivated to tackle real-world health challenges with innovative tools and the potential to impact patient care beyond academia, we'd love to hear from you! **Apply today to be part of this exciting journey into the future of drug delivery.**

Position 1 and 2
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Position 2
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