

# Student internship position (SHK) in molecular modeling and simulation at the research group of Prof. Dr. Diana Imhof

Pharmaceutical Institute

Pharmaceutical Biochemistry & Bioanalytics

<https://www.pharma.uni-bonn.de/www/pharmazeutische-biochemie-und-bioanalytik>

University of Bonn

## Position summary

We welcome applications for an internship position from master's students of Life Science Informatics/Bioinformatics (or Computer Science) to address the computational requirements in one of our ongoing projects. The work involves using bio-molecular modeling and simulation techniques to aid and enhance insights obtained from our experimental work. We are looking for a technically skilled and motivated student who would be compensated by a SHK contract.

## Requirements

### Must-haves

- Experience and proficiency with UNIX based operating systems (e.g. Ubuntu).
- Strong programming skills in at least one of the following (Python, Perl, Bash / Unix shell scripting , R).
- Ability to provide robust programmatic solutions to tasks that qualify for building of automated workflows.
- Knowledge and understanding of molecular mechanics concepts.
- Knowledge and understanding of concepts and methods used in molecular modeling with an emphasis on molecular docking and molecular dynamics simulations.
- Knowledge and understanding of concepts in protein structure, dynamics and protein-ligand interactions.

### Good-to-haves

- Experience with version control software such as GIT.
- Experience with molecular docking and molecular dynamics software.
- Experience with UI and web-development technologies.
- Experience with SQL and database management systems.

### General requirements

- Proof enrollment in a master's program (required to issue a work contract).
- Good spoken and written communication skills in English.
- High levels of motivation and self-organization.

Interested applicants are requested to send in a **CV** and a short **motivation letter** to [ajgeorge@uni-bonn.de](mailto:ajgeorge@uni-bonn.de) until **22-06-2018**. The motivation letter should unambiguously explain how your profile and skills match our requirements. Selected applicants will be invited by email for a personal discussion where technical skill, scientific knowledge and soft skills will be further assessed. The initial internship offer is given for 3 months and based on the performance and outcomes, the chance to extend the work as a master thesis can be offered.