



Molecular Modeling Research Internship – NDSU

Research Advisor: Dmitri Kilin

Program Description:

Research lab of Prof. Dmitri Kilin at the department of Chemistry and Biochemistry, NDSU has several open positions of undergraduate research assistant internships, for a research project on computational modeling of photoreactions.

The responsibilities of undergraduate research assistant include building of molecular models, educated launching of computational chemistry software, and analysis of computed reaction products and intermediates. **All activities are performed remotely via communication software.** Training and knowledge transfer are performed as a part of internship. Starting weekly involvement is 10hr per week at \$12/hr. These hours include attendance of group meeting (2 hrs.) and weekly progress reports (0.5 hr.) Escalation of appointment condition and extension depends on mutual agreement and progress. Support lines for these positions are arranged via National Science Foundation research grant.

Required Qualifications:

This is introductory level position available for undergraduate college students starting from freshmen year. There are no requirements to have specific classes taken. It is expected that the intern has intentions to pursue STEM career and taking STEM related courses before or during internship.

FUTURE CAREER:

Successful completion of the research internship typically results in a peer review publication. Skills and training in computational modeling of chemical reactions obtained during the internship open door to several career pathways in education, academia, and research and development divisions in a range of industries.

- Photodegradation of polymer plastic for clean and safe environment
- Green energy industry, screening of materials and processes for solar panels
- Drug design for pharmaceutical industries
- Petroleum industry, refining
- Design of thin film nanomaterials for microelectronics
- Design of polymer and nanomaterials for OLED and QLEQ TV panels

CONTACT:

For additional information prospective applicants should contact Dmitri.Kilin@ndsu.edu