



Department of Chemistry

PhD positions in Bioinorganic Chemistry

The following project is conducted at the laboratory of Prof. Dr. Roland Sigel at the Department of Chemistry, University of Zurich, being one of the leading groups in bioinorganic chemistry worldwide. The project and supervision are managed independently by Dr. Michal Shoshan. The University of Zurich is one of the best research universities in Europe. With over 170 professors from 20 countries, the Faculty of Science conducts cutting-edge research.

Our group is looking for highly motivated and talented PhD students to conduct a new, exciting, and multidisciplinary research. We combine peptide, inorganic and medicinal chemistry, as well as molecular biology to solve current healthcare challenges by applying a broad range of techniques and skill-sets.

The project

Metal poisoning currently poses a major challenge for medicinal chemistry. Although chelation therapy is the most efficient way to handle metal toxicity, the approved chelating agents still suffer from many drawbacks. The small molecule chelators do not distinguish between essential and toxic metal ions. As a result, most of these compounds are highly toxic and many segments of the population are prohibited from treatment with them. Peptides and short proteins serve as common scaffolds for metal detoxification in many organisms. As peptides are biocompatible, flexible and contain a variety of potential functionalities, developing a new peptidic-based drug for this purpose may be highly advantageous. The aim of this project is to design non-toxic peptides for selective medicinal metal detoxification.

We offer

Outstanding working conditions, a high quality of life in Zurich, an adequate salary and conditions of employment of the University of Zurich.

Your profile

If you are diligent and you have a strong scientific curiosity, you belong with us. As this project is at the interface of chemistry and biology, applicants who hold a completed (or soon to be completed) Master's degree with a background in natural or physical sciences and interdisciplinary research are welcome. Also, applicants must have good English language skills.

Applications

For more details and to submit an application (including a cover letter, a CV, and two references), please contact Dr. Michal Shoshan at michal.shoshan@chem.uzh.ch.