



## PhD position in Molecular Biology

### Discovery of allosteric positive modulators for the treatment of mannosidosis

We are looking for a motivated and talented **PhD Student** to join our laboratory of **Computer-Aided Molecular Design** (Division of Physiological Chemistry, Medical University of Graz, Austria). The PhD candidate will participate in the experimental part of the project **Discovery of allosteric positive modulators for the treatment of mannosidosis**.

This PhD project is framed within our research line of discovery and validation of small chemical molecules as positive allosteric modulators of defective human lysosomal  $\alpha$ - and  $\beta$ - mannosidases in order to rescue their activity. The successful candidate will work in the screening of chemical compounds as modulators of the activity of the human lysosomal mannosidases. Thus, the PhD student will lead the expression of the former enzymes in bacteria and in *Pichia pastoris*. She/he will also develop enzyme and phenotypic screening assays to determine the effect of small molecules on mannosidase activity. The PhD student will work back-to-back with our computational team so computational techniques like molecular docking, molecular dynamics simulations and free energy calculations will broaden her/his PhD training.

The contract (3 years) will be established according to collective bargaining agreement of the Medical University of Graz and the Austrian regulations (Doctoral candidate). The selected candidate is expected to start **October 1st 2022** and to take part into the Molecular Medicine (MolMed) PhD School of the Medical University of Graz.

#### Requirements

- MSc degree on Molecular Biology, Biotechnology, Biochemistry, Chemistry or Pharmacy
- Experience with protein expression (desirable in yeast and bacteria)
- Knowledge in protein chemistry and enzyme assay
- Excellent command of English
- A strong desire to learn

#### How to apply

If you are interested in the position, please check

<https://www.medunigraz.at/doktoratsstudien/phd-program/phd>

**Questions?** Feel free to visit [CAMDgraz.com](http://CAMDgraz.com) or to send an Email to: [pedro.murcia@medunigraz.at](mailto:pedro.murcia@medunigraz.at)

