The research group of Medical Physics and Biophysics (Centre of Biological Sciences) is doing research with a main focus on Membrane Biophysics (http://www.vetmeduni.ac.at/biophysik).
We are looking for a

PhD Student

in Membrane Biophysics/Molecular Dynamics Simulations

start: as fast as possible

We invite you to be a part of the **FWF Project "Molecular mechanism of ANT-mediated proton transport"**.

This project explores how the mitochondrial ATP/ADP carrier (ANT) controls cellular energy production by transporting protons, a process that influences metabolism, aging, and disease. Combining experimental and computational methods, the project seeks to reveal the molecular basis of mitochondrial uncoupling and contribute to the development of new therapeutic strategies for metabolic and age-related disorders.

We are looking for students holding their master's degree in (Bio)Physics, (Bio)Chemistry, Biological Engineering or Molecular Biology and interested in membrane biophysics, structure/function of mitochondrial proteins and/or Molecular Dynamics Simulations.

The position is offered for 30 hours per week for 3 years.

Please include in your application directed to Elena E. Pohl, Medical Physics and Biophysics; University of Veterinary Medicine Vienna, Austria; elena.pohl@vetmeduni.ac.at (+43125077-4571):

1. Motivation letter
2. Curriculum Vitae
3. Copies of Bachelor and Master (or state examination) certificates
4. Reference letters, 1-3 persons as references
5. Publications (if available).

Application deadline: available until the position is filled

Selection Process:
Initial online Interview, presentation of Master Thesis, discussion of research paper

For an introduction to the topic please see our recent publications:

1) Vojvodic, S., Roticiani, G., Vazdar, M., Pohl, E.E. "Molecular Dynamics Simulations of a Putative Novel Mechanism for UCP1-Assisted FA Anion Transport"(2025) Acta Physiologica.
2) Kreiter, J; Škulj, S; Brkljača, Z; Bardakji, S; Vazdar, M; Pohl, EE (2023) "FA Sliding as the Mechanism for the ANT1-Mediated Fatty Acid Anion Transport in Lipid Bilayers" Int J Mol Sci. 2023; 24(18):13701
3) Kreiter, J; Rupprecht, A; Škulj, S; Brkljača, Z; Žuna, K; Knyazev, DG; Bardakji, S; Vazdar, M; Pohl, EE "Ant1 activation and inhibition patterns support the fatty acid cycling mechanism for proton transport" Int J Mol Sci. 2021; 22(5):2490