

# Master's Project in Molecular Immunology and Gene Regulation



*The Pavri laboratory at the IMP, Vienna, is looking for a Diploma/Master student to participate in a project that is part of a long-term effort to understand the molecular basis of antibody somatic hypermutation in B lymphocytes.*

Somatic hypermutation (SHM) is the process by which transcription-mediated targeted mutations in immunoglobulin genes leads to the maturation of antigen-specific antibodies. SHM is thus essential for all robust long-term immunity. As such, it is a unique phenomenon where genome instability has been evolutionary selected for due to its importance in the immune response. Several fundamental questions remain unanswered: What factors contribute to SHM and what is their mechanism of action? Is there a unique transcriptional and chromatin environment at immunoglobulin genes that contributes to SHM? What mechanism restricts mutations to selected regions?

Our group addresses these questions using a combination of genetics, biochemistry, functional screening and genomics. The Master's project will be part of a collaborative effort involving a diverse, international team. The project will involve extensive molecular biology, genome-wide deep-sequencing experiments and CRISPR-based genome editing. The student will be assisted by senior members of the group but will be expected to work independently. Therefore, it is essential that the student is highly motivated and curiosity-driven, a good team player and proficient in English.

For more details of the group's projects, please visit:

<http://www.imp.ac.at/research/research-groups/pavri-group/>

Interested students should send their CV and letter of interest to:

**Dr. Rushad Pavri**

Group Leader

Research Institute of Molecular Pathology (IMP)

Vienna BioCenter

Campus-Vienna-Biocenter-1

Vienna 1030, Austria

Email: [rushad.pavri@imp.ac.at](mailto:rushad.pavri@imp.ac.at)

Tel: 43-1-79730 3390