

The institute of Pharmacology and Toxicology at the University of Veterinary Medicine Vienna is looking for a **highly motivated master student** to join the immunology research team and to uncover new molecules (checkpoints) in Natural Killer (NK) cells to prevent breast cancer metastasis.

Breast cancer is the most common cancer diagnosed in women and affects over 7 million people worldwide. Metastasis to distant organs is the main cause of death of these patients, which underlines the need for novel therapeutic means.

NK cells are effector lymphocytes of the innate immune system and the first line of defense in anti-tumor responses. They are also crucial to limit metastasis but their function is often strongly suppressed by the cancer environment.

Immune checkpoints are crucial regulators of immune cells guaranteeing controlled actions and preventing autoimmunity. Cancer growth and progression are associated with immune suppression and immune evasion. One of the evasion mechanisms of cancer cells is the ability to activate such immune checkpoints thereby preventing the cytotoxic ability of immune cells.

In this project, we plan to study changes of NK cells in the course of metastatic breast cancer to identify new checkpoints on NK cells, the inhibition of which, unleashes the NK cell response against metastasizing cells.

The successful applicant will join a collaborative research project with the Karl Landsteiner University. The project will be carried out at the University of Veterinary Medicine Vienna under the supervision of an experienced post- doctoral researcher and involves work with primary cell culture, biochemical assays, flow cytometry and *in vivo* mouse models.

Candidate Profile:

- BSc Degree in Biology, Molecular Biology, Biotechnology, Biomedicine or a related subject
- Basic knowledge in immunology and tumor biology
- Experience with sterile cell culture work
- Fluent in English
- Previous experience with flow cytometry or mouse work is beneficial

Application Details:

If you are interested and would like to be part of the immunology research team, please send a cover letter and a curriculum vitae to dagmar.gotthardt@vetmeduni.ac.at

Project start date: January-April 2022

Financial support will be provided.