# Master Student in Tumor Immunology (m/f/d)

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The Maier laboratory at CeMM, the Research Center for Molecular Medicine of the Austrian Academy of Sciences in Vienna, is recruiting a highly motivated Msc Student to join our team of international scientists working in the field of tumor immunology & cancer immunotherapy. We are looking for a candidate with a background in immunology, molecular biology or equivalent. A commitment of 12 months is required for this position. Starting date preferably August or September 2025.

## The Project

Our team is looking for a passionate Msc student to support an ongoing project on a myeloid cell-based immunotherapy platform. We are generating myeloid cells expressing candidate targets to drive different aspects of anti-tumor immunity. With this system, we can modulate a variety of immune pathways, such as the induction of tertiary lymphoid structures, and inhibition of immunosuppressive pathways.

Your tasks in this position will include:

- Cell culture techniques, such as differentiation and transduction of myeloid cells
- Molecular biology techniques, such as cloning and lentiviral transduction
- Flow cytometry and cell sorting
- Isolation of primary immune cells from different tissues, e.g. tumor, bone marrow, etc (mouse, human)
- Option for training in basic mouse handling

After receiving the appropriate training, the new Master student will independently carry out experiments. In addition, the new group member will be a part of individual as well as group meetings to deepen their understanding of the background and current scientific directions in the field of tumor immunology and cancer immunotherapy.

## Your Profile

- Currently pursuing a Msc degree in life sciences
- Eager to join a young team and be trained in new techniques
- Strong interest in the field of tumor immunology
- Experience with basic molecular biology (e.g. cloning and PCR)
- Excellent written and oral communication skills in English
- High accuracy, reliability and independence, able to work seamlessly in a team

## The Maier Lab

Our group is studying interactions within the microenvironment of solid tumors that cause immune-suppression and tumor immune evasion. Our overall aim is to understand and break through limitations of current immunotherapies. We want to develop novel immunotherapy concepts by modulating and reprogramming specific immune cell compartments to achieve optimal immunity against tumors. Questions that fuel our research are: How can we empower antigen-presenting cells to prime effective tumor-directed T cell responses? What antigen-presenting cell phenotypes play a role in T cell polarization and restimulation at the tumor site and how do they drive/limit T cell exhaustion? What factors drive T cell exhaustion in the tumor microenvironment and the draining lymph node? What specific pathways need to be targeted in tumor-associated myeloid cells to break their immune-suppressive properties? To achieve our goals, we combine cell-culture based high-throughput technologies with mechanistic in vivo studies, single-cell transcriptomics and immune-profiling of patient-derived tumor material.

## The Principal Investigator

Barbara Maier studied molecular biology at the University of Vienna and obtained her PhD from MedUni Vienna, working on deciphering the role of type I interferon in pulmonary inflammation under the mentorship of Professor Sylvia Knapp. She focused on bacterial infections in the lung and peritoneum and the protective or detrimental roles of inflammatory mediators therein. She then continued her training as a postdoctoral fellow in the laboratory of Professor Miriam Merad at the Icahn School of Medicine at Mount Sinai in New York (USA). There, she gained extensive knowledge of human tumor immunology and myeloid components of tumor immune suppression. In her main work, she uncovered a regulatory module expressed in dendritic cells in human non-small-cell lung cancer patients, functionally validated multiple of these regulatory molecules, and showed that modulating the regulatory program in dendritic cells leads to improved tumor control. Barbara Maier joined CeMM as a principal investigator in January 2021. Her lab focuses on tumor immunology and specifically on the dynamics of antigen-presenting cell/T-cell interactions in the tumor microenvironment and tumor-draining lymph nodes and how tumor-associated antigen-presenting cell phenotypes shape tumor-directed T-cell responses. Barbara Maier is a recipient of the the prestigious ERC Starting Grant for the year 2023.

## About the Institute

CeMM is an international research institute of the Austrian Academy of Sciences and a founding member of EU-LIFE. The mission of CeMM, the Research Center for Molecular Medicine of the Austrian Academy of Sciences is to achieve maximum scientific innovation in molecular medicine to improve healthcare. At CeMM, an international and creative team of scientists and medical doctors pursues free-minded basic life science research in a large and vibrant hospital environment of outstanding medical tradition and practice. CeMM's research is based on post-genomic technologies and focuses on societally important diseases, such as immune disorders and infections, cancer, aging and metabolic disorders. CeMM operates in a unique mode of super-cooperation, connecting biology with medicine, experiments with computation, discovery with translation, and science with society and the arts. CeMM discovers and develops technologies to explore human biology with the purpose of defeating disease at its roots. Because Science is our Medicine! CeMM is a proud recipient of the HR Excellence in Research Award (HRS4R). This award indicates that CeMM takes care of the well-being of its employees, that the recruitment process is open, fair, and transparent, and that CeMM offers professional appraisals and career development procedures. More than 150 people from 49

nationalities are working at CeMM. The institute promotes equal opportunity and harbours a mix of different talents, backgrounds, competences, and interests. www.cemm.at

## We offer

- Work within an experienced, interdisciplinary, and international team at one of Austria's leading research institutes
- Ample opportunities to contribute and gain experience in a key area of biomedical research and precision medicine
- An inspiring workplace with an international setting, strong team spirit, and an excellent work climate
- A wide range of social, cultural, and sports activities organized by the institute
- Excellent employee benefits including full insurance coverage (health, accident, retirement), health care services, subsidized cafeteria
- Monthly gross salary of EUR 1349,60 (following the recommendations of FWF)
- Support for relocating to Vienna is provided (relocation reimbursement, visa support, etc.)

*Please apply online (https://cemm.onlyfy.jobs/job/az1m0r7n) with cover letter, CV , certificates (high school & university Diploma/grades)and contact details of 2 referees. Any application received by **April 28th 2025** will be considered.*

### Additional information

| | |
|---|---|
| City | **Vienna** |
| Position type | **Part-time employee** |
| Start of work | **01.08.2025** |

### Responsible

Memo Mokhles

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