

Ausschreibung:

## PHD Position

**The Department of Biomedical Imaging and Image-guided Therapy at the Medical University of Vienna (<https://radnuk.meduniwien.ac.at>) is offering a PhD position:**

Breast cancer (BC) is the most common cancer and the second leading cause of cancer death in women. Early prediction of individual risk and therapy response is essential for advancing personalized BC therapy. Toward the goal of avoiding over-treatment in low-risk patients, gene expression signatures can already identify patients who may safely avoid chemotherapy. Pushing personalization further, it seems realistic that integrating functional imaging in combination with multi-omics profiling will accurately identify a subset of BC patients who can safely forgo curative surgery.

PREDICTOME pursues the hypothesis that integrative ML analysis of functional imaging (PET/MRI) and multi-omics profiling of tumor biopsies and liquid biopsy at early response can predictively identify patients that will achieve pathological complete response following neoadjuvant chemotherapy. PREDICTOME will develop a validated ML model for predicting pathological complete response in BC towards safely omitting surgery in low-risk patients based on multi-omics dynamics during early neoadjuvant chemotherapy response.

For the PREDICTOME PET/MRI imaging part we offer a full PHD position according to the MedUni Wien guidelines:

- You have a Master Degree in biology, bioengineering, molecular biology, medicine or equivalent
- You have expertise in image analysis (MRI / PET).
- Knowledge of image analysis software's
- Eager to learn and apply machine learning and artificial intelligent tools
- Ability to communicate with different professions
- Excellent communication skills in German and English (written and spoken)
- Autonomous, able to analyze and solve problems and be flexible.

Please send your application including a CV to:

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