

A highly innovative system, called long axial field of view (LAFOV) PET/CT, has become available and is the ideal medical imaging modality to study diseases and molecular processes at the whole body/systems biology level with multiple radiotracers. Studying diseases and diagnosing patients using PET/CT imaging should use a whole body/systems biology approach, i.e., a comprehensive whole body characterisation of disease, and it should be longitudinal and should use multiple radiotracers. However, LAFOV PET/CT is so new that we lack the necessary tools, methodologies, imaging procedures and skilled scientists to effectively address key applications in patient care and research. With the **PREFERENCE** project we aim to develop innovative LAFOV PET/CT methodologies to perform and support ground-breaking new clinical research.

PREFERENCE will train the next generation of researchers specialized in LAFOV PET/CT who will capitalize on the new clinical and research opportunities of the LAFOV PET/CT system. By performing research in both academia and industrial groups, researchers within **PREFERENCE** receive training in a unique combination of (soft) skills across disciplines and sectors. **PREFERENCE** will develop new LAFOV PET/CT methodologies, and perform LAFOV PET/CT clinical studies across disease areas to obtain novel biological insights. This project was selected by the EU as worthy of funding under the HE Marie Skłodowska Curie Action. The consortium consists of 12 academic partners with a strong expertise in quantitative (LAFOV) PET/CT imaging as well as industrial partners developing imaging equipment or providing multi-center image analysis solutions and services.

PhD PROJECT. LAFOV PET for the assessment of the dynamics of brown adipose tissue

HOST INSTITUTION. Medical University of Vienna (MUW)

MUW is the largest medical organisation in Austria located in one of Europe's largest hospitals, the Vienna General Hospital. About 6,000 staff members work at MUW in 30 university hospital departments, 2 clinical institutes and 12 centres of medical science. The doctoral candidate will be affiliated with the Division of Nuclear Medicine and the Quantitative Imaging and Medical Physics (QIMP) team. The Division of Nuclear Medicine is part of the Dept of Biomedical Imaging and Image-guided Therapy and operates the LAFOV PET/CT. Furthermore, the facility operates an on-site cyclotron including radiochemistry facilities, two PET/CT(MR) systems, 3 SPECT/CT systems, a therapy yard and a preclinical imaging facility. The QIMP team is part of the Center of Medical Physics and Biomedical Engineering (CMPBME) and provides the technical infrastructure for data processing. Team members have extensive experience in clinical studies and technical development. More information can be found online: <https://radiologie-nuklearmedizin.meduniwien.ac.at/> and <https://mpbmt.meduniwien.ac.at/>.

DESCRIPTION OF THE ADVERTISED POSITION (DC 1)

This is a 3-y full time position as a doctoral candidate (DC) under the auspice of the MSCA DN programme. The successful candidate will drive a clinical study where dynamic 60 min ^{18}F -FDG PET/CT examinations of healthy volunteers will be performed to assess the dynamics of brown adipose tissue activation across the entire body as well as the examination of global metabolic changes after a cold exposure. The tasks will include the setup of the imaging study, the development and adjustment of a continuous infusion protocol for the tracer administration, the conduction of the imaging trial, the data processing, pharmacokinetic modelling and data evaluation. The candidate will work together with two supervisors (one nuclear medicine MD and one medical physicist) which will provide guidance in the individual tasks. Within the course of this project, 3 months of secondment to Turku PET center and UMC Amsterdam are planned.

GENERAL ELIGIBILITY CRITERIA

Mobility Rule: The fellow may not have resided in the country where the research training activities take place (in this project Austria) for more than 12 months in the 3 years immediately prior to the recruitment date (and not have carried out their main activity (work, studies, etc.) in that country)

Doctoral candidate: The fellow must be — at the date of recruitment — a ‘**doctoral candidate**’ (i.e. not have a doctoral degree).

Candidates from Russia, Belarus and occupied territories in Ukraine are also not eligible.

SPECIAL REQUIREMENTS

- Successfully completed studies in (medical) Physics, Medicine, Biomedical Engineering or alike (MSc degree or equivalent)
- Very good command of the English language (additional skills in German will be of benefit)
- Good communication skills (a pre-requisite for cooperating in a multi-disciplinary environment)
- Willingness to travel and flexibility
- Prior experience with medical imaging and image data will be of benefit
- Technical skills and programming experience will be of benefit
- Appropriate physical condition to work in a radiation protection control area

RECRUITMENT PROCESS:

After assessing compliance with the mobility rule and eligibility for the position based on your CV and motivation letter you might be invited for several online or in-person interviews. Selection of the candidates and invitation for the interviews will be done by the local (host) supervisory team. These interviews will be performed by the local (host) supervisory team as well as an international scientific mentor from the PREFERENCE network and, possibly, one of the scientific advisors. Information on your application will be shared with the coordinator of the consortium for centralized coordination and registration of the recruitment process. The employment will be based on a full time contract according to the Austrian general contract for universities and will include social insurance and pension plan. Information on the exact employment conditions will be provided during the application process and upon appointment by the host institution.

FURTHER INFORMATION:

PREFERENCE: <https://preference-consortium.eu/>

Medical University of Vienna <https://www.meduniwien.ac.at>

Full applications should include

- A motivation letter (no AI – write it yourself!)
- A Europass CV (<https://europass.cedefop.europa.eu/documents/curriculum-vitae>)
- Copies of your relevant certificates (BSc and MSc certificate – pdf)
- Contact details of two references

Applications should be submitted online to: preference@amsterdamumc.nl and ivo.rausch@meduniwien.ac.at latest by 1 October 2026. Interviews might already start during September based on the already received applications. In case of any procedural questions, please contact: ivo.rausch@meduniwien.ac.at



PREFERENCE is supported by the European Union’s Horizon Europe research and Innovation programme under the Marie Skłodowska-Curie grant agreement No 101307478.