

Three (3) PhD positions in Positron Emission Tomography Quantification

Department

Nuclear Medicine & Molecular Imaging

Environment

The University Medical Center Groningen (UMCG) is one of the largest hospitals in the Netherlands and the largest employer in the Northern Netherlands. In addition to providing clinical care, it is a constituent member of the University of Groningen with much focus on core research, training and education. The Department of Nuclear Medicine & Molecular Imaging as part of UMCG has well-established international reputation for its state-of-the-art infrastructure and front-end research activities together with its internal and external collaborations. At least as important as a pleasant working environment is a pleasant living environment. Groningen is a thriving university city set in quiet, spacious surroundings.

Background and PhD position description

The Department of Nuclear Medicine & Molecular Imaging recently installed a Siemens Biograph Vision Quadra™ 1m long Positron Emission Tomograph (PET) scanner accompanied with a state-of-the-art computed X-ray tomographic (CT) system. As one of the first centres (worldwide) with such a scanner, a new research line will be to explore novel opportunities that such a system offers. As part of the recently launched Molecular Imaging Physics program led by Dr. Charalampos Tsoumpas, we are happy to announce three (3) PhD positions, which will focus on the development of novel quantitative methods for analysing dynamic PET data obtained with the PET/CT Biograph Vision Quadra™. The three PhD projects will focus on:

1. Development of non-invasive, quantitative methods for analysing neuroPET data;
2. Development of fully quantitative methods for analysing immunoPET data;
3. Development of artificial intelligence (AI) methods for quantitative image reconstruction.

Research output will be presented at scientific meetings and published in peer-reviewed journals.

What do you need?

You should be a creative and passionate researcher with a degree in Physics or Medical Physics, Computer Science, Data Science, Applied Mathematics, Artificial Intelligence, (Biomedical) Engineering, Biomedical Sciences, Computational Biology with a very strong interest in imaging science. Good communication skills and expertise in software development are essential. The research should result in a PhD thesis.

What do we offer?

Three fully-funded PhD positions with a salary of € 2,279.- gross per month in the first year up to a maximum of € 2,919.- gross per month in the last year (scale PhD). In addition, the UMCG will offer an 8% holiday pay, an 8.3% end-of-year bonus and a development budget. The terms of employment comply with the Collective Labour Agreement for Dutch Medical Centers (CAO-UMC).

More information

- Dr. ir. C. Tsoumpas; email c.tsoumpas@rug.nl
- Prof. dr. A. Lammertsma; email a.a.lammertsma@umcg.nl
- Prof. dr. R. Dierckx; email r.a.dierckx@umcg.nl

Applications

The following should be provided by the 30th of September: letter of motivation (maximum one A4 page) also stating the earliest possible starting date and their project of interest, brief curriculum vitae, and, if possible, your undergraduate and/or postgraduate theses as well as any (co)authored publications.