

We are looking for a:

## Post-doc researcher or PhD-student

*For developing novel imaging modality for preclinical radiation research platform:  
phase-contract x-ray CT*

**About the position:** We will soon start to extend the imaging capabilities of a new advanced research platform for preclinical studies with small animal models for oncology. The platform currently has x-ray based CT imaging onboard, in addition to precision irradiation with small beams of x-rays. We also developed our own treatment planning system for irradiation studies.

We plan to extend the x-ray imaging capabilities with phase contrast imaging and spectral imaging, but the emphasis of the project at Maastricht will be on the former, while other groups will work on other parts of the project, such as spectral x-ray imaging and AI methods for imaging. This project builds on several preceding successful projects, and will pave the way to clinical translation of new technology.

The project involves modern x-ray sensing technology for imaging such as TimePix3 sensors. Your role will be to design, acquire, install and extensively test the selected system. This will also involve Monte Carlo simulations, image processing methods and AI methods. The project is international, with as industry partners SmART Scientific Solutions (Maastricht, leader of the project), Xstrahl gmbh (Germany), and two teams at Ludwig Maximilian University (LMU, Munich). Willingness to work in such a collaboration is important.

The ACACIA project is partially funded by the EU EUROSTARS program, and is a collaboration between two biomedical companies, two LMU academic partners and Maastricht. These are located in Germany and the Netherlands.

**We are looking for** a dynamic co-worker and team player, with a (recent) doctoral graduate and a strong MSc degree in (bio)physics or (bio)physics engineering with an interest in biomedical research with x-ray imaging. Excellent candidates without a PhD but with equivalent experience may also be considered.

Ideally, you have:

- knowledge of x-ray imaging hardware and software and imaging physics;
- advanced computer programming skills (e.g. on GPU);
- knowledge of x-ray phase contrast imaging is a strong plus, but can also be learned during the project;
- knowledge of artificial intelligence for imaging is a plus.

The candidate should be able to start the project not much later than March 1<sup>st</sup> 2025.

You are enthusiastic about relocating to the beautiful and culturally very active region around Maastricht (which is also close to Germany and Belgium). Knowledge of the Dutch language is not a requirement. However, an English language proficiency is required (minimum IELTS 7.0).

### What do we have to offer?

- a challenging job in a dynamic organization that values patients interests and innovation, collaboration with a highly motivated team;
- the Collective Labour Agreement for Hospitals (in Dutch: CAO Ziekenhuizen) applies;
- a fulltime (36 hour) contract for an initial period of one year, which in case of a successful evaluation can be extended with 1,5 additional years (in case of a post-doc) and 3 years (in case of a PhD-student);
- salary:
  - o in case of a post-doc researcher: a salary according to salary scale FWG 60 (minimum gross salary of € 3,923, maximum of € 5,746, dependent of relevant work experience);
  - o in case of a PhD-student: a salary according to salary scale FWG 50 (minimum gross salary of € 3,199, maximum of € 4,540,-, dependent of relevant work experience);
- 8.33% holiday allowance and 8.33% end-of-year bonus;
- Pension build-up;



- we offer a wide range of options for personal development including hard and soft skill courses;
- we invest in the employability and vitality of our employees and as part of this offer discounts on for example sport subscriptions;
- applicants from abroad may qualify for the advantageous 30% tax rule and a reimbursement of relocation expenses.
- in case a residence/work permit is required, our HR department will assist with the application.

**More information on this position?** Feel free to contact Prof. Dr. Frank Verhaegen, head of Physics Research, via phone number +31-88-4455792.

**Application procedure:** interviews for this position (1<sup>st</sup> round) will take place on October 21<sup>st</sup> or October 25<sup>th</sup>. The second interview round will take place on November 4<sup>th</sup> or 5<sup>th</sup>.

**Interested in this position?** You can apply until October 4<sup>th</sup> 2024 by uploading your motivation letter and curriculum vitae on our website [www.maastricht.nl](http://www.maastricht.nl) (tab jobs & academy).

**About Maastricht:** Step into the future of oncology care at Maastricht! Maastricht is a leading top specialist institute offering advanced radiotherapy to oncology patients in the province of Limburg, The Netherlands. With our main location in Maastricht and an annex in the VieCuri Medical Center in Venlo, we are a focal point for innovative care. We connect patient care, education and scientific research with a team of 370 dedicated professionals. Our state-of-the-art proton center, opened in 2019, offers proton therapy, a revolutionary technique that reduces side effects. Our five research divisions - Clinical Data Science, Physics Research, Clinical Research, Innovation Research and Lab Research - lead the way and contribute to innovative healthcare solutions. We focus on personalized care and AI-driven technologies to optimize treatment outcomes and patient experience. At Maastricht you will work in a dynamic environment where you can grow and contribute to pioneering developments in oncology.

Located on the Maastricht Brightlands Health Campus, we foster interdisciplinary collaboration with the University Medical Center and Maastricht University. We are easily accessible, with the Maastricht Randwyck train station practically on our doorstep and within cycling distance of the city center! Make a difference and join our innovative team!