



Professor/Associate Professor and Group Leader Medical Physics and Accelerator P



Department	Particle therapy Research Center
Work location	Groningen
Apply no later than	18 July 2021

Working environment

The University Medical Center Groningen seeks to appoint an Associate Professor or full Professor to lead the Radiation Physics group of UMCG PARTREC. The appointee will conduct internationally leading research on the development and application of techniques and instruments for improving particle therapy and engage with the existing translational research program of the Department of Radiation Oncology and GPTC. The Associate Professor/Professor will develop an excellent national and international research program in radiation physics with a strong focus on the improvement of particle therapy and contribute to relevant educational programs in the Faculty of Medical Sciences and the Faculty of Science and Engineering. She/he will also, in close collaboration with the users, take the lead in further developing the capabilities of the accelerator facility for preclinical radiation biology research, maintain and grow EU project participation. The candidate should have an internationally strong publication record and reputation in radiation physics, interest in radiation biology, the ability to secure competitive research funds, lead and advance the existing faculty, teaching interest and contribute to the management of the facility and have the ability to connect with internal and external users.

Job description

Within the 'PARTicle Therapy REsearch Center (PARTREC)' imbedded in the Depts. of Radiation Oncology and Biomedical Sciences of Cells and Systems of the University Medical Center Groningen (UMCG), Groningen, the Netherlands, we have an immediate opening at the Professor/Associate Professor level in Radiation Physics with a focus on particle therapy. The successful candidate will assume the Radiation Physics Team Leader role and will oversee three physics faculty as well as, graduate and postgraduate students, and will be a member of the PARTREC Management Team and Scientific Board.

UMCG PARTicle Therapy REsearch Center (PARTREC)

At present, the UMCG is one of the largest hospitals in the Netherlands and the largest employer in the Northern Netherlands. With over 1.300 beds and more than 13.000 employees and takes care of an adherence region of over 2.5 million inhabitants in the north of the Netherlands. The UMCG is ISO-certified for patient care, teaching, training and research. The University of Groningen (Rijksuniversiteit Groningen, RUG) is a top 100 university in international rankings.

UMCG foresees an important role for particle therapy in general and proton therapy in particular, both for patient care and for research. Therefore, UMCG is further intensifying the proton therapy research by establishing the PARTREC facility.

PARTREC is a dedicated research facility embedded in the Depts. of Radiation Oncology and Biomedical Sciences of Cells and Systems, and will work in synergy with the existing clinical proton facility, the Groningen Proton Therapy Center (GPTC), which is part of the Department of Radiation Oncology of UMCG. Our strategic research priorities are related to the physics and biology of particle irradiation, with a special focus on proton therapy. This focus fits completely with the UMCG strengths (state-of-the-art infrastructure) and priorities (focus on healthy aging and on complex pathology).

UMCG PARTREC operates a large superconducting cyclotron for experimental research (former KVI-CART), mainly in radiation physics and biology, to support further development of radiotherapy with ion beams. For this research program the cyclotron delivers beams of various ions ranging from protons to oxygen with energies up to 190 MeV for protons and 90 MeV per nucleon for ions of helium to oxygen. The accelerator is furthermore used for research in nuclear physics by faculty of the University of Groningen and for commercial radiation hardness testing. Some 20 FTEs of technical staff operate the accelerator facility and provide support to design and build experimental apparatus.

UMCG PARTREC promotes multidisciplinary research in which radiation physics and biology, imaging, big-data analysis, and clinical research come together to improve the quality of proton therapy treatment and explore potential benefits of other particles for cancer treatment. Over 30 PhD students and post graduate students are currently dedicated to particle therapy research.

The facility is well-integrated in the research landscape, participating in various EU-projects. Currently a new research infrastructure for image guided preclinical irradiations (IMPACT), supported by an infrastructure grant awarded by the Dutch Cancer Society in 2019, is under development. It is expected to be fully operational by 2023. At this new infrastructure novel irradiation modalities such as FLASH and SFRT with proton and helium beams will be available for worldwide users. UMCG PARTREC has the ability to uniquely combine technology development, preclinical and patient studies with an R&D program to demonstrate clinical and economic benefits and to continuously improve proton therapy technology and the treatment itself, while assessing the feasibility of other particles for high precision radiotherapy.

What do we need

- A PhD in physics or applied physics or in a related discipline.
- Expertise in radiation transport physics including simulations, radiation detection, accelerator physics and experience in experiments at accelerator facilities.
- An internationally recognized and leading expert in particle therapy related research, with the proven ability to initiate and coordinate research in the field. This implies output, networking and fund raising.
- A leader with strong communication skills with the ability able to coordinate, connect, motivate, stimulate, and further develop the existing research program.
- Proven track record in high quality publications and obtaining funding.
- A vision on the field of particle therapy and related research and the ability to translate this into results.
- Expertise in helping and teaching PhD students and postdocs and involvement with teaching activities at Faculty of Medical Sciences and the Faculty of Science and Engineering.
- Fluent English speaker.

The UMCG has a preventive Hepatitis B policy. The UMCG can provide you with the vaccination, should it be required for your position.

In case of specific professions a 'Certificate of Good Conduct' is required.

What do we offer

Salary will be commensurate with qualifications and relevant experience and expertise, based on a full-time appointment. In addition, the UMCG will offer you 8% holiday pay and 8.3% end-of-year bonus. Terms of employment according to the Collective Labor Agreement (CAO) for University Medical Centers in the Netherlands.

More information

For more information about this vacancy you may contact:

Prof. Dr. Stefan Both, telephone +31 50 361 3674, e-mail address s.both@umcg.nl

Applying for a job

Please use the the digital application form at the bottom of this page - only these will be processed. You can apply until **18 July 2021**.

Within half an hour after sending the digital application form you will receive an email- confirmation with further information.

Application form

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