

The Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital (NKI-AVL) is for the group of Prof. Peter J. Peters in the department of Cell Biology, looking for a

PhD candidate
Vacancynumber 2010/...

Project information:

The candidate will join an on-going project, which has the ultimate goal to image biological nano-machines and their mode of action at macromolecular-scale by pushing the current limits of visual proteomics and nanotechnologies. Electron Microscopy, bioinformatics, template matching and image processing are part of the new ventures. As cryo electron tomography is approaching macromolecular resolution, X-ray data can be 'docked' or fitted into the lower resolution density maps to create a macromolecular atlas of the cell under normal and pathological conditions. The majority of cells, however, are too thick to be imaged in an intact state and therefore we have built nano-fluidic chambers of 200 nm thickness in which mammalian cells voluntarily migrate before they are vitrified. We recently obtained grants for 2 Krios Titan cryo-TEMs. For more details see www.necen.nl

We now aim:

- To develop and use methods for visualizing vitreous biological samples for cryo-LM and cryo-TEM and examine the sub-cellular distribution and organization of macromolecular structures involved in cell migration and the organization of cytoskeletal polymers.

This is a project in collaboration with Dr. Gerard van Veen, FEI and Prof. Marileen Dogterom, AMOLF and the science faculty of the university of Delft and Leiden.

Requirements:

The optimal candidate should have interest in 3D electron microscopy. The candidate will join a team of 12 postdocs, PhD's and technicians that work cooperatively. More details at www.nki.nl/research/peters

The project is challenging and the candidate must be in possession of strong motivation, good social and communication skills and commitment to the scientific research, as well as flexibility in conducting experiments.

Employment conditions:

The temporary employment will be for a period of 4 years with the aim to obtain a PhD. Obtaining a next career step will then be supported. The gross salary per month will be from € 2354,- to € 2899, depending on previous experience.

The Dutch Cancer Institute offers a good scientific infrastructure and friendly environment for their scientist and is one of the high-ranking institutes in the world. See also www.pcdi.nl. In addition, Amsterdam is a great place to live.

For information:

For further information about the position please contact Prof. Peter J. Peters, E-mail: p.peters@nki.nl.