VACANCY

Locatie VUmc

PhD student in Cellular Neurophysiology | Astrocyte dysfunction in the white matter disease MLC (36,0 hrs)

The project
AMC and VUmc join forces in a merger and are managed as a whole from now on. At Amsterdam UMC, AMC and VUmc work together on excellent care for our patients, we educate promising talents to become a doctor or nurse and we improve the future healthcare thanks to high quality and (inter)nationally recognized scientific research. Together we can do that so much better than alone.

The Glial (patho)physiology group (department of child neurology, Amsterdam UMC/VUmc and department of Integrative Neurophysiology, CNCR, VU) is seeking two PhD candidates to join a research project entitled: 'Causes and consequences of disturbed brain ion and water homeostasis in the white matter disease MLC'.

Team
Our research team, headed by Dr. Rogier Min, studies the interactions between neurons and glial cells, both in the healthy brain and in the context of neurological diseases. Our team is embedded in both the Amsterdam UMC/VUmc (Department of Childhood Neurology headed by Prof. Marjo van der Knaap) and the CNCR (Department of Integrative Neurophysiology headed by Prof. Huibert Mansvelder). This unique localization between clinic and lab ensures a truly translational approach to neuroscience. For further information see our website (http://inf.cncr.nl/research_teams/glial_pathophysiology/).

Your challenge
Electrical activity in the brain is the basis of all our thoughts and actions. It is caused by movement of charged ions between intracellular and extracellular compartments, and crucially depends on maintaining a correct distribution of these ions. Astrocytes play a crucial role in this process. Dysfunction leads to chronic white matter swelling in a group of neurological diseases. In this project, we focus on the white matter disease 'Megalencephalic leukoencephalopathy with subcortical cysts' (MLC), a disease characterized by dysfunctional astrocyte water and ion homeostasis. In PhD project 1 we will use a combination of electrophysiological recordings and (2-photon) imaging in validated mouse models for MLC to study which aspects of astrocyte physiology are disrupted in MLC, and how this affects neuronal function. In PhD project 2 we will investigate which cellular pathways are disturbed when proteins involved in MLC are disrupted, in models ranging from isolated cells to the intact brain.

Your profile
We are searching for a candidate with the following expertise and experience:

- Enthusiastic, self-driven and motivated, with a passion for cellular and/or translational neuroscience;
- Master degree in neuroscience or related relevant fields;
- Excellent communication skills in English (written and verbal);

For both projects, experience with electrophysiological recordings of neurons or glia (in vitro or in vivo) is a pre. Additionally, for project 1, experience with life-cell imaging and the use of viral vectors is an asset; for project 2, experience with cell culture and molecular biology is an asset.

We offer
Salary scale: OIO (2279 tot 2919 euro based on a 36 hour week), depending on qualifications and experience.
Salary will be according to the CAO of the Dutch university medical centers.

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Apart from an excellent salary we also offfer an 8.3% year-end bonus and 8% holiday pay. For more information see our working conditions on the website.

For Dutch citizens it is mandatory to provide a VOG (Verklaring Omtrent Gedrag).

Additional information
Your application should include a motivation letter, CV and contact information of at least two people that could provide letters of reference.

We strive for a workforce that reflects the diversity in society in terms of, among other things, age, sex, sexual orientation and cultural background. We would appreciate receiving letters from candidates who might widen the diversity of our team.

Interested?
For more information about this position, you can contact Rogier Min, via telephone number: +31(0)20-5985378.
For more information about the application procedure, you can contact Brend de Jong , corporate recruiter, via telephone number: 020-444 5635.

Please apply before 27-8-2018 with reference number D3.2018.00080BJ via the following link: https://www.werkenbijvumc.nl/vacatures/phd-student-in-cellular-neurophysiology-astrocyte-dysfunction-in-the-white-matter-disease-mlc/