

PhD-student/post-doc M/V



Within the department of Physiology, section Cell Physiology, of the UMC St Radboud in Nijmegen, we are looking for PhD student and/or post-doc *m/v* (2-4 years, 38 hours/week).

Within the section Cell Physiology, research is performed towards the regulation of water and iontransport in epithelial cells of organs like the kidney or intestine. We are housed in the 'Nijmegen Center for Molecular Life Sciences (NCMLS), the new research center of the University of Nijmegen, in which fundamental and clinical applied research are merged.

Daily we produce 180 litres of pro-urine in the kidney of which 1.5 litres is voided. The remaining 178 litres are reabsorbed. Concentration of urine in the kidney occurs through insertion and retrieval of Aquaporin-2 water channels into the apical plasma membrane, which is regulated by the antidiuretic hormone vasopressin (AVP), binding to its vasopressin type-2 receptor (V2R). Gene mutations inactivating V2R cause nephrogenic diabetes insipidus (NDI), a disease in which the kidney is unresponsive to AVP, resulting in polyuria and polydipsia. Excitingly, we recently discovered that cell permeable V2R agonists can activate intracellularly-retained V2R mutants in NDI. Using life imaging techniques, we will unravel the mechanism by which cell-permeable V2R agonists activate these retained receptors. Data obtained are anticipated to reveal the mechanism of action of a completely novel cell biological of broad significance.

Requirements:

- A finished university education in (medical) biology or chemistry (masters, Drs or Dr)
- Strong motivation to succeed in scientific research
- Experience in relevant Molecular and Cell Biological research
- Experience with the FRET is a pre
- Independent and well-structured working style
- Well-developed social skills directed to work in a team

Closing date:

Ongoing

Further information and contact:

can be obtained from Dr. Peter M.T. Deen (P.Deen@ncmls.ru.nl; 024-3617347). Detailed information about the department can be found at <http://www.physiology-nijmegen.nl>. Applicants should send a letter of intent outlining special interest in the position, overall related qualifications, experience and career goals, a curriculum vitae, including a list of publications, and names and addresses of 2/3 professional references to Info@FYSIOL.umcn.nl.