

Postdoc in Top Institute Pharma project 'Nuclear Receptors and Atherosclerosis'

Background: The Top Institute Pharma is a Dutch initiative to promote Industry-Academia partnerships aiming at the development of novel therapeutic concepts for the treatment of human diseases. In the project 'Nuclear Receptors and Atherosclerosis', the universities of Groningen, Leiden, Nijmegen and Amsterdam (UvA) and the pharmaceutical company Merck Sharp & Dohme collaborate in a project aimed at a better understanding of the mechanisms by which nuclear receptors such as LXR, FXR, LHR1, ROR, and GR control metabolic and inflammatory processes. Ultimately, the project creates the knowledge base that is required for the development of novel pharmaceuticals with an improved risk-benefit ratio in the treatment of metabolic and cardiovascular disease.

Research topic: the current position is for a postdoc who will work together with a technician to study allosteric control of nuclear receptor signaling. In particular, we will address the mechanism by which DNA sequence elements control the transcriptional activity of the receptor by allosteric control of cofactor recruitment and/or ligand binding. To this end, we will set up multiplex TR-FRET techniques that allow simultaneous measurement of receptor-DNA and -cofactor interactions. In a second phase of the project, we will validate the results of the biochemical assays in a physiological context in living cells. In this phase we will also address whether we can identify distinct conformational themes in DNA-bound nuclear receptor signaling that allow us to separate metabolic from inflammatory pathways.

Skills: PhD in molecular/cellular biology. Teamworker. Proven ability to design and execute a research plan.

What we offer: the successful candidate will receive a contract for 2 years from the University of Groningen. Place of work are the Merck Research Laboratories (former Organon) in Oss, within the Department of Molecular Pharmacology and Drug Metabolism. In this department there is a longstanding expertise in drug discovery on Nuclear Receptors. The focus is on drug discovery by studying ligand-receptor signaling using state of the art biochemical and cellular assays and lab automation. The position offers a unique opportunity to work on an academic project within an industrial environment. For more information, please contact Dr. Martin Smit, head of department (martin-jan.smit@merck.com, tel 0412-661563) or Dr. Koen Dechering, section head Nuclear Receptors (koen.dechering@merck.com, tel. 0412-663301).