

Post-doc in Astrocyte Biology

A consortium of 8 international research groups joined forces in the FP7 project "Nuclease Immune Mediated Brain and Lupus-like conditions". A post-doc position is available to investigate the ***astrocyte dysfunction in Aicardi Goutieres syndrome***.

The project is a close collaboration between Prof.dr. Taco Kuijpers, who is a pediatric immunologist and infectious disease specialist at the Emma Children's Hospital at the Academic Medical Center (AMC), and Dr. Elly Hol, who is a neurobiologist at the Netherlands Institute for Neuroscience (NIN) in Amsterdam. The post-doc will work in the [Hol lab](#), that is specialized in astrocyte biology & neurodegeneration, but will closely interact with the Dept of Pediatric Hematology, Immunology & Infectious disease, as well the Dept of Pediatric Neurology (haed: Prof B.T. Poll The) at the AMC.

Description of the project:

Aicardi-Goutières syndrome (AGS) is a rare autosomal recessive disorder affecting newborns and manifesting as microencephaly, fever, feeding difficulties and severe developmental delay. Motor difficulties include spasticity, dystonia, truncal hypotonia and poor head control. Neuropathological investigation reveals astrogliosis accompanied by calcifications of the basal ganglia and white matter destruction. Life expectancy is generally not more than 20 years.

The pathogenesis of AGS is still largely unknown, although several genes coding for nucleases have been implicated. The clinical symptoms closely resemble those of congenital viral infection and indeed interferon-alpha was found to be elevated in the cerebrospinal fluid (CSF) of patients. However, more extensive cytokine profiles in CSF of AGS patients show that the activated signaling pathways in AGS differ from viral infections. In the AGS brains the astrocytes are the source of interferon-alpha. To further explore the role of astrocytes in the pathogenesis of the AGS neurological phenotype, we will employ human astrocytes that we will engineer to over-express IFN- α by transfection with expression plasmids or transduction with lentiviral vectors to mimic increased IFN- α production of astrocytes in AGS patients.

Requirements:

We are looking for an excellent and highly motivated candidate with a PhD degree in neurobiology and a strong interest in clinically oriented research. The ideal candidate has excellent communication and social skills, is able to perform the project independently and enjoys to work in between a clinically and a basic science oriented research group. The candidate will be required to operate within the multi-disciplinary FP7 consortium and actively participate and foster collaborations.

Appointment:

This position involves a full-time (38 hrs/week) temporary appointment for 3 years.

To apply, please send your application letter, CV and two letters of recommendation before 1 September 2010 to Dr. Elly Hol, NIN, Meibergdreef 47, 1105 BA Amsterdam; e-mail: e.hol@nin.knaw.nl.