

## Post doc in computational genetics for 3 years (1,0 fte)

**Donders Institute for Brain, Cognition and Behaviour**

**Minimum Salary: €2,861 gross/month**

**Closing date: 1 September 2010**

### Job description

A post-doc position is available to work on Bayesian methods for cortex-wide analysis of fMRI activation data, and for linking cortical activation and brain connectivity data to genome wide association data, and clinical and cognitive phenotypes. This position is supported by an external grant from NWO Brain & Cognition, Excellent program.

The post-doc will be part of a multidisciplinary teams working on genetics and receive supervision from the SNN and the other participating departments (i.e. Cognitive Neuroscience, Human Genetics and Psychiatry).

### Requirements

The requirement for the candidate is a strong mathematical, statistical or computational background, such as for instance an academic degree in physics, mathematics, theoretical biology or computer science and interest in computational genetics.

### Organization

The Donders Institute for Brain, Cognition and Behaviour (<http://www.ru.nl/donders>) is an all-encompassing brain research institute and a KNAW recognized PhD Graduate School of the Radboud University Nijmegen (RUN) and the RUN Medical Centre. The institute works both on brain functioning in healthy individuals, as well as brain dysfunction related to various disorders. Genetics is an important topic within the institutes' research, as cognitive abilities, psychiatric disorders, and brain structure and organization are strongly influenced by genetic factors. The complex nature of the genetic component of the brain traits, with generally small effect sizes of individual genetic risk factors, has severely hampered the identification of specific predisposing genes. This is particularly obvious in psychiatric disorders, where even after the advent of genome-wide association studies, only a small percentage (<10%) of the genetic contribution to disease can be explained. This is thought to be partly due to the suboptimal nature of current analysis programs for genome-wide association.

The departments of Cognitive Neuroscience, Human Genetics and Psychiatry of the RUN Medical Centre have a joined interest in the genetic etiology of psychiatric disorders and related brain traits and have joined forces with the SNN in the development of more sophisticated analysis methods for genome-wide association studies. SNN is the Donders Institute machine learning group and is dedicated to fundamental research in the areas of machine learning and computational neuroscience. Specific topics are Bayesian networks, stochastic neural networks, approximate inference methods, time-series modeling, bio-informatics, expert systems, stochastic control and collaborative decision making. The group consists currently of 8 researchers and three programmers.

**For other vacancies for this project: [http://www.ru.nl/vacatures/details/details\\_vacature\\_0?recid=497857](http://www.ru.nl/vacatures/details/details_vacature_0?recid=497857)**

### Conditions of employment

Employment: 1,0 fte

Postdoc : Minimum salary for the post-doctoral position is €2,861 (scale 10.4). Initial salary depends on relevant work experience.

Duration of the contract: 3 years

### Additional Information

Prof. dr J.K. Buitelaar ([j.buitelaar@donders.ru.nl](mailto:j.buitelaar@donders.ru.nl))

Telephone: +31 24 3610750

E-mail: [j.buitelaar@donders.ru.nl](mailto:j.buitelaar@donders.ru.nl)

### Application

Applications should contain a complete CV and a brief description of the applicant's research interests. Closing date for this vacancy is 1 September 2010. You can apply for the job by sending your application -preferably by email- to:

Prof. J.K. Buitelaar  
Radboud University Nijmegen  
Donders Institute for Brain, Cognition and Behaviour,  
Centre for Cognitive Neuroimaging  
Kapittelweg 29, 6525 EN Nijmegen, NL  
Telephone: +31 24 3610651  
E-mail: [j.buitelaar@donders.ru.nl](mailto:j.buitelaar@donders.ru.nl)