

Master Thesis in Neurogenetics

Reference number: LP606

Location: Cologne Center for Genomics, University of Cologne

Job description: The student will discuss with the group her/his interests and will develop a project in the first 2-3 months, which will be executed during the six months Master Thesis period. Financial support is possible for the full duration of the project.

The neurogenetics group at the Cologne Center for Genomics, one of the leading groups in the field, is looking for a qualified, highly-motivated and team-playing candidate to join the neurodevelopmental disorders research program. The successful candidate will join an interdisciplinary team of computational biologists, bioinformatics analysts and clinicians who are working together to identify novel disease associated genes, computationally characterize genetic variants that cause or confer risk to neurodevelopmental disorders. The group is closely interacting with collaborating hospitals, patient organizations and international research consortia. The candidate will join Dr. Lal laboratory and will be co-supervised by Prof. Nürnberg. The exact details of the thesis project will be developed by the candidate himself/herself and the team. Parts of the project will include computational identification and biological interpretation of genetic variants associated with neurodevelopmental disorders. The candidate will perform quality control of genetic data sets, and statistical analysis combining genetic variation and clinical phenotype data. The Lal group is working closely with groups at Harvard University and the candidate is expected to participate in weekly online group meetings.

Publications of the group:

<https://www.ncbi.nlm.nih.gov/pubmed/?term=Peter+Nürnberg>
<https://www.ncbi.nlm.nih.gov/pubmed/?term=Dennis+lal>
<http://biorxiv.org/search/Dennis%252BLal>

Key responsibilities:

- Method development and joint analysis of DNA variation and clinical phenotype data
- Development of innovative analytical methods in an interdisciplinary team to improve genetic variant interpretation
- Providing support to medical doctors and biological researchers to develop and implement data-analyses
- Contribute to preparation of research papers

Requirements:

- Must be enrolled in a Master of Science program
- Must have basic training in two of the following softwares: R, Python, Unix, Perl, C++
- Good English communication skills (oral and written)
- Experience with genetic datasets and with algorithms in computational biology is a plus

For questions and applications (including a short cover letter and CV) please contact:

Dennis Lal

Dennis.Lal@uni-koeln.de

Dlal@Broadinstitute.org