

M.Sc. research internship opportunity, 2026
[Imaging Genomics Group](#) @Language and Genetics Department
Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands

The genetic architecture of structural left–right asymmetry of the human brain

Daily supervisor: Dr. Meng-Yun Wang

Supervisor: Prof. dr. Clyde Francks

Subject area: Brain imaging genetics

Project description: Left–right hemispheric asymmetry is an important aspect of healthy brain organization for many functions including language, and it can be altered in cognitive and psychiatric disorders. Previously, we performed multivariate genome-wide association scanning of cortical regional surface area and thickness asymmetries, as well as subcortical volume asymmetries, using data from 32,256 participants from the UK Biobank. We found 21 significant loci associated with different aspects of brain asymmetry, with functional enrichment involving microtubule-related genes and embryonic brain expression.

In this project, we would like to update our results by applying the same pipeline as previously, but including the newly available data from the UK Biobank (roughly 55,000 individuals). We expect that the greater sample size will help to identify further significant genomic loci and clarify the associations of microtubule-related genes with variation in brain asymmetry, behavioural, and psychiatric traits.

Main reference: Sha et al. (2021) <https://doi.org/10.1038/s41562-021-01069-w>

Project duration: 6 months with a starting time Jan. 2026 (negotiable)

We are looking for a master's student interested in linking genomics and neuroimaging

Ideal Candidates:

1. good computational skills: familiar with or willing to learn how to program with bash, R, Python, or other coding languages
2. familiar with big datasets, such UK Biobank

Skills will be gained:

1. GWAS (genome-wide association analysis); neuroimaging (MRI) data analysis
2. dealing with big data open dataset, such as the UK Biobank dataset
3. academic reading, presenting, and writing

Interested?

If you are interested in doing an internship with us, please send your application via the recruitment website: <https://www.mpi.nl/career-education/vacancies/vacancy/msc-research-internship-language-and-genetics-department>.

For an informal inquiry, please send an email to mengyun.wang@mpi.nl