The Migraine Family Study

Information for researchers interested in using stored samples and data

1. Introduction

The Migraine Family Study is focused on identifying genetic variation associated with migraine, headache-related symptoms, and migraine comorbidities. The study aims on developing personalized, evidence-based treatments for migraine utilizing genetic findings. Research is conducted by Helsinki University and Helsinki University Central Hospital, and it collaborates with many different research centres (Folkhälsan, Wellcome Trust Sanger Institute, Broad Institute of MIT and Harvard and University of Eastern Finland).

The Migraine Family Study was started in 1992 and the collection of samples is still ongoing. The sample collection includes donors who have been diagnosed with migraine and their family members. DNA samples and/or data has been collected from almost 10 000 individuals in more than 2500 families. The study participants have been recruited mainly through public and private headache clinics in Finland.

2. Ethical considerations

The Migraine Family Study material collected before 30 April 2017 was transferred to THL Biobank on 28 December 2017, following a public notification, which was announced in many newspapers in October 2017. The transfer of this previously collected material to the biobank occurred under the Finnish Biobank Act (688/2012) and it was approved by the Coordinating Ethics Committee of Helsinki University Hospital on 23 May 2017 and by the National Supervisory Authority for Welfare and Health (Valvira, Dro V/30876/2017). Donors who participated in the study from 1st May, 2017 onwards, were invited to give an informed consent to THL Biobank. Research material includes DNA samples, genomic data, and information on migraine diagnosis status.

3. Migraine study samples and omics data available for biobank research

DNA samples are available from nearly 9 000 sample donors.

- ~ 2/3 of subjects are diagnosed with migraine
- ~ 1/3 of subjects are their family members

The following genotype data are available:

- Genome-wide SNP data
- Genotype data imputed to a population-specific reference panel
- Exome sequencing (WES) data
- Whole-genome sequencing (WGS) data

For availability of genome-wide genotypes and sequencing data, see more information in the **'THL Biobank Omics data availability table'** at the THL Biobank sample collection page.

Migraine Study phenotype data available for biobank research:

Below are the details on the baseline data that is available for Migraine Study participants.

- Gender
- Age
- Migraine diagnosis
- Sampling date and quality information

4. Register data

Information from the Finnish national health registers, such as Care Register for Health Care (HILMO), Cancer Register, Causes of Death Register and Drug Imbursement Registers etc., can be linked to sample donors by separate application process and project-specific data permit from Findata.

5. Research group

Principal Investigator
Aarno Palotie, FIMM

6. Key references

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