External PhD opportunity

General information:

Please find below our current PhD opportunities at Complex Genetics. These vacancies are offered on the self-funded, no supervision fee basis.

A doctoral degree from Maastricht University is prestigious. The graduate school of Nutrition and Translational Research in Metabolism (NUTRIM) will therefore only accept the most serious, talented and ambitious candidates of whom they are confident that they will succeed in acquiring the doctorate degree. Candidates need to demonstrate their motivation, have a background that fits to the proposed research and dispose of sufficient financial means to support themselves as well as their research.

If you are interested in becoming part of our external PhD candidate community and are eligible for the doctoral degree (you must have Master's degree as stated in the UM Regulation governing the attainment of doctoral degrees), please apply by writing write a motivation letter accompanied with your CV, demonstrating your suitability for the proposed project based on prior education, research experiences and English writing and communication skills. Having published a scientific paper in an international peer-reviewed journal will increase your chances of being accepted.

If good quality and match to the proposed project, the applicant will be invited for a (telephone or online) interview. If the supervision team has confidence that a PhD can be completed successfully, the candidate will be registered at NUTRIM.
NUTRIM does not charge a fee for enrolment nor supervision and has no compulsory PhD training programme. An external PhD candidate at NUTRIM will receive distant supervision by email, telephone, and/or skype by a team of supervisors, comprised by the senior supervisor. The supervision team consists of researchers who have expertise on the proposed topic. A local supervisor (PhD) can be added to the supervision team if the senior supervisor agrees. Training options of the PhD candidate will be tailored to the project after discussion with the supervision team. External PhD candidates generally do the research abroad (in the country of origin or where they are employed) and should be prepared to come to Maastricht one or several times during the project for supervision and training. Please note that external PhD candidates should provide for their own income and living expenses. After registration, the external PhD candidate will develop the preliminary project proposal into a Personal Research Plan and draw up a Training and Supervision Plan, to be submitted 12 weeks after the start of the PhD trajectory.

Title:

TELOMAAS: a global consortium initiative on the association between telomere length and noncommunicable diseases

Promotor:
Maurice Zeegers

About the supervisors:
Dr. Maurice Zeegers is professor of Complex Genetics & Epidemiology at Maastricht University. He serves as head of CAPHRI and the Department of Complex Genetics and Epidemiology. His main interest is in Cancer Epidemiology, Lifestyle Exposures and Genetic Susceptibility. He has published >200 papers and supervised >20 PhD students.

Dr. Marij Gielen is assistant professor at Complex Genetics & Epidemiology at UM. Her main interest is prenatal programming of noncommunicable diseases with specific interest in the role of (epi)genetic factors. She collaborates with the East Flanders Prospective Twin survey and is the Study Manager of the MEFAB study and the TELOMAAS initiative.

About the research group:
The studentship will be embedded within the team Genetic and life course epidemiology of prof. dr. Maurice Zeegers. Amongst others, this productive team has built a strong expertise on meta-analyses with over 33 meta-analysis-publications. The PhD student will work with other colleagues and PhD students that are involved other consortia (e.g. the BLEND consortium that has harmonized dietary information) and other research projects (e.g. MEFAB birth cohort), and in twin research (e.g. via their projects in the East Flanders Prospective twin Survey).
The project will be embedded within the graduate school of Nutrition and Translational Research in Metabolism (NUTRIM).

Workfield of the proposed project: Epidemiology
Estimated duration: 3 years

Scientific background:
Shorter telomeres are associated with noncommunicable diseases such as type 2 diabetes and cardiovascular disease. A body of evidence exists, including some meta-analyses. Regrettably, evidence is mainly based on cross sectional data making it impossible to draw causal inference. Likewise residual confounding is always a possibility. In addition large sample sizes are needed because of the large inter individual variation of leukocyte telomere length (LTL). Therefore, meta-analyses of longitudinal studies that can evaluate change in noncommunicable diseases alongside change in telomere length are warranted.

Main research question, subquestions and aim(s):
Our main objective is to set-up a large scale powerful international consortium called TELOMAAS to conduct a comprehensive investigation into the LTL in relation to noncommunicable diseases throughout the life course. To prospective PhD students who bring their own funding, we are quit flexible to discuss details and personal goals.

Research design and methods:
PIs of 72 distinct studies with a total of over 120.00 individuals have expressed their willingness to join a pooled analysis on the association between BMI and LTL. These PIs of the TELOMAAS group are at the base of this project. For the ongoing project raw data will be gathered of studies with longitudinal data. Special attention will be paid to the (non)linearity of the associations. Sex, ethnicity, smoking, obesity, physical activity, perceived stress are important confounders.

Research activities:
The PhD student will

- perform an update of the literature search to identify new relevant studies studies
- contact PIs and collect relevant raw data, e.g. disease state, LTL and possible confounders
- harmonize the data
- perform pooled analyses on longitudinal data (telomere length attrition) taking confounders and causes of heterogeneity into account.

Expected results:
This PhD projects aims to provide definite answers on the association between LTL and noncommunicable diseases across life span resulting in a PhD thesis with at least four to six scientific articles.

Competences the applicant needs to have or acquire for the project:
MSc in Epidemiology or related field, confidence in statistical analyses, fluency in English

Internal contact:
Marij Gielen