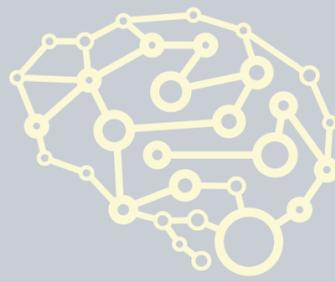


# NEWSLETTER MULTIPLEMS

#5 | Aug 2019



## MultipleMS

### Prospective study

We have recruited almost 300 MS patients for the prospective study. We aim to end the recruitment in December 2019 - hopefully reaching a total number of 500 MS patients.

In addition to the clinical evaluation, we isolate serum, plasma, DNA, RNA, and immune cells from each patient at each visit. Our members at Leuven, Belgium, have been able to characterize 132 different immune cells and 27 activation markers. This method will be used to compare the variation in immune cells profile among the patients, whether the profile is changing in certain groups of patients or if the change correlates with treatment response and/or side-effects. You can read more about the work of the Leuven team at the next page.

### Retrospective study

The data collection from our research sites has made significant progress. A pilot study was done where the genetic data from independent cohorts was combined, taking precaution to prevent the introduction of biases. Once this pipeline is fine-tuned all the genetic data within the consortium will be made available for all participating research centers. Furthermore, a similar effort with the phenotype data (observable characteristics/traits) is nearly complete. Historically, the different sites have collected their phenotypic data in different ways, careful consideration of how these data can be synchronised is a major task. A list of synchronised data types will soon be available, with the expectation that over time more challenging data types will be made available for inclusion in research projects within MultipleMS.

#### Contact information:

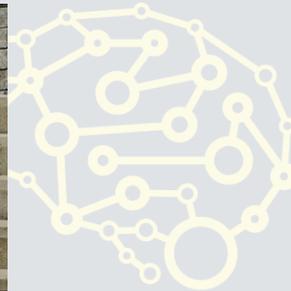
- Official webpage: <http://www.multiplems.eu>
- Stakeholder registration: <http://www.multiplems.eu/Newsletters/>
- Facebook: [www.facebook.com/multipleMS](http://www.facebook.com/multipleMS)
- Twitter: @MultipleMS\_EU



## MultipleMS members

In this edition, we present the Laboratory for Neuroimmunology at KU Leuven (Belgium), partner in the MultipleMS project. In particular, they are involved in work package 4 (WP4), called “Outcome heterogeneity” and in work package 5 (WP5), about biomarkers and therapeutic targets. In the context of WP4, the Belgian team uses genetic data and data from cerebrospinal fluid (CSF) from > 10000 MS patients collected by different countries in the past years. The team searches for genetic factors that explain the differences in CSF measurements that are observed between patients and that are clinically important.

For WP5, Belgium is one of the nine centers across Europe inviting MS patients to participate in the prospective study. They are also performing deep phenotyping on blood samples from all the centers. They apply a novel platform that characterizes the composition of the immune system in the blood with a high level of detail. So far, nobody has done this in a well-standardized large MS patients group. Once the group from Germany has collected the biomaterial samples from newly diagnosed patients across centers, they ship them to Leuven, where they undergo the immunophenotyping analysis.



### The KU Leuven team.

Behind, from left to right: Klara Mallants, Dr. Emanuela Oldoni, Katleen Clysters, Marijne Vandebergh, Cindy Thys. In front, from left to right: Prof. An Goris, Prof. Bénédicte Dubois, Dr. Ide Smets, Lies Van Horebeek.

*“One of my tasks is being in contact with the central biobank in München to organize samples transfer. Once samples arrive in Leuven I make sure they are correctly stored at our site. I then deliver them to our FACS core, where analysis takes place.” – Klara Mallants, lab technician*

*“Many MultipleMS partners, like our group, have been working successfully together for many years as members of the worldwide International Multiple Sclerosis Genetics Consortium (IMSGC). This Consortium made it possible to undertake large-scale projects, beyond the scope of any individual center or country, that led to important and reliable findings on genetic factors in MS. We expect that this successful collaboration will continue in the MultipleMS project.” – Professor An Goris, PI*

*“My role in this study is to give a lot of information about the disease and the importance of research worldwide. Only then, the patient can give an informed consent to participate in this project. Well informed patients are motivated to fulfill all the questionnaires and other tests during the follow-up period.” – Katleen Clysters, study nurse*