



EMC is part of the new H2020 EU project RELENT aiming at improved diagnostics and intervention strategies for chronic autoimmune diseases

(Tübingen, 05-02-2016) A new project funded by the European Commission (Horizon 2020) is devoted to research into chronic autoimmune diseases such as rheumatoid arthritis and vasculitis and the development of individualised therapies for affected patients. EMC microcollections GmbH is part of the international project "RELENT", coordinated by MedUni Vienna (Renate Kain, Department of Pathology). The project started on 1 November 2015.

The objective of the project RELapses prevENTion in chronic autoimmune disease – common mechanisms and co-morbidities ("RELENT") is the development of improved therapies for chronic autoimmune diseases such as rheumatoid arthritis and vasculitis. A multidisciplinary consortium of nine scientific partners and four SME's from Europe, the US and Australia is planning to research mechanisms common to these diseases which are responsible for the persistence and life-threatening developments of the diseases. The results of the study are intended for clinical application as soon as possible in order to help patients faster. Nearly six million Euros has been awarded to the RELENT consortium for the next 4.5 years by the European Commission under its Horizon 2020 programme.

Which patients will develop a severe course of autoimmune diseases?

Autoimmune diseases affect approximately five percent of the population in industrialised countries. In many cases, the disease has a mild progression, but they can also lead to a chronic and serious illness such as in the case of rheumatoid arthritis and other forms of arthritis, inflammatory bowel disease (Crohn's disease and ulcerative colitis), multiple sclerosis, systemic Lupus erythematosus and various forms of systemic vasculitis.

Typically, these diseases progress in episodes; which requires long-term treatment with anti-inflammatory and immunosuppressive medications. These medications may have severe side effects, including an increased susceptibility for infections, cancer and cardiovascular diseases.

"There is currently no means to distinguish at the outset those patients who will suffer from frequent relapses, and therefore need intensive early treatment, from those who do not. Titrating the use of immunosuppression to the disease activity and developing novel treatment strategies consequently requires the application of precision medicine to autoimmunity – a concept already established in cancer treatment," states Prof. Renate Kain, coordinator of the project.

In order to better understand the common mechanisms of these diseases, the RELENT consortium will jointly analyse data from a variety of measurements (clinical, serological, genetic, transcriptome) and thus develop new bio-markers for these diseases. These should allow the tailoring of the most efficacious treatment to each patient with a chronic autoimmune disease.

The RELENT Consortium

MedUni Vienna is the coordinator of the consortium and is in charge of the project management together with GABO:mi. Further members of the consortium are the University of Cambridge (UK), University Medical Center Groningen (The Netherlands), Helmholtz-Zentrum München (Germany), the University Clinic of Bonn (Germany), Ludwig Maximilian University Munich (Germany), KTH Royal Institute of Technology (Sweden), Mayo Clinic (US), Monash University (Australia), EMC microcollections GmbH (Germany), Hycult Biotech (The Netherlands) and Phenocell (France).



About the Horizon 2020 Programme

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020). It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. RELENT is funded as part of societal challenges “personalising health and care” in a specific call on “Understanding common mechanisms of disease and their relevance in co-morbidities”. In this call, the European Union emphasized that the development of new treatments is greatly facilitated by an improved understanding of the pathophysiology of diseases. RELENT is now addressing this need for better disease prevention, health promotion, therapy development and the management of co-morbidities for severe autoimmune and inflammatory diseases.