Thermo Fisher Scientific Licenses New Peptides for Rheumatoid Arthritis From Charité and Co-inventor in.vent Diagnostica GmbH.

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Thermo Fisher Scientific Inc. develops and distributes immunodiagnostic blood test systems worldwide to support the clinical diagnosis of allergy, asthma and autoimmune diseases.

Rheumatoid arthritis (RA) is an autoimmune disease resulting in chronic inflammation in peripheral joints. The prevalence of RA is 1% worldwide, affecting women more commonly then men in 3:1 ratio.

At present, the main clinically useful biomarkers for diagnosis of RA are rheumatoid factors (RF) and antibodies to citrullinated peptides (CCP). At the same time, up to 30 % of patients with RA may not have these antibodies.

Dr. Karl Skriner from the Clinic for Rheumatology and Clinical Immunology of the Charité in cooperation with in.vent Diagnostica GmbH* found that certain modified citrullinated hnRNP-A3 peptide variants derived from the naturally occurring human hnRNP-A3 protein sequence are well suited to diagnose patients especially with early RA.

The abbreviation hnRNP's stands for "heterogeneous nuclear ribonucleoprotein". These are proteins occurring in the cell nucleus, which play a role in many aspects of the maturation of pre-mRNA.

A large proportion of RA patients develop autoantibodies against the body-specific, naturally occurring, hnRNP-A3 proteins. The autoantibodies of RA patients bind particularly well to the new hnRNP-A3 peptide variants and are therefore particularly suitable for autoantibody identification.

With the help of the new hnRNP-A3 peptide-mediated autoantibody diagnostics, the diagnostic gap, not covered by anti-CCP and RF will be addressed and decreased.

By combining the new hnRNP-A3 peptide and the already established biomarkers (anti-CCP and RF) Thermo Fisher Scientifics will contribute to an earlier and more accurate diagnosis which will lead to improvement of clinical outcome and quality of life for RA patients.

*i*n.vent Diagnostica GmbH - based at the biotech campus in Hennigsdorf near Berlin- is specialised in the ethical and reliable provision of human biomaterials for research, development and production for in vitro diagnostics.*

Contact:

Dr. Bettina Büttner
Technology Manager
Technology Transfer Office
Charité – Universitätsmedizin Berlin
Bettina.Buettner@charite.de

Dr. Karl Skriner
Clinic for Rheumatology and Clinical Immunology
Charité – Universitätsmedizin Berlin
Karl.Skriner@charite.de

Impressum

Technologietransfer
Charité - Universitätsmedizin Berlin
Akademische Verwaltung
Charitéplatz 1
10117 Berlin
Tel.: +49 (0)30 450 570 873
Fax: +49 (0)30 450 7570 964
technologietransfer@charite.de