

# Novel biomarkers improve diagnosis in rheumatoid arthritis

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Data presented at EULAR 2013, the Annual Congress of the European League Against Rheumatism, show that novel antibody biomarkers could significantly improve diagnosis in rheumatoid arthritis (RA).

Four candidate biomarkers – UH-RA.1, UH-RA.9, UH-RA.14 and UH-RA.21 – were investigated; as a group they demonstrated 85% specificity for RA, and were present in both early and seronegative disease, with 36% of early RA and 24% of RF- and ACCP -negative patients testing positive.

RA is a [chronic autoimmune disease](#) characterised by inflammation of the joints and tendons. As the disease progresses it can cause pain, stiffness, joint destruction and deformity, and reduce quality of life, life expectancy and physical function.

"Early detection is imperative; if treated early, patients have a more than 50% chance of achieving remission<sup>3</sup> – yet one third of patients test negative to RF and ACCP. Antibody reactivity against our candidate biomarkers in both early and seronegative RA patients implies that they could significantly help to improve diagnosis and [patient outcomes](#)," said lead author of the study Liesbeth M De Winter, Biomedical Research Institute, Hasselt University, Diepenbeek, Belgium.

Antibody reactivity was measured in a cohort of 127 RA patients, 97 healthy controls, 90 rheumatic controls (including psoriatic arthritis, ankylosing [spondylitis](#), osteoarthritis and Sjögren's syndrome patients)

and a validation cohort of 165 RA patients. Amongst the 292 RA patients, 34% could not be identified using the current diagnostic biomarkers RF and ACCP.

"These data show that our candidates, in combination with existing [biomarkers](#), could help close the diagnostic gap in RA. In addition, significant associations with inflammatory factors and the presence of erosions indicate a tangible prognostic potential," De Winter concluded.

**More information:** 1.De Winter L et al., New autoantibodies as biomarkers for early and seronegative rheumatoid arthritis [abstract]. EULAR Annual European Congress of Rheumatology; 12-15 June 2013; Madrid, Spain. Abstract nr. OP0181

2.Somers K. Novel autoantibody markers for early and seronegative rheumatoid arthritis. Autoimmun. 2011;36(1):33-46

3.Morelli J . New treatment approach shows sustained remission is possible with RA. 2013. Available from: [arthritisday.org](http://arthritisday.org) . Last accessed: May 2013

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