# The role of C5a in Rheumatoid and Psoriatic Arthritis in comparison with Osteoarthritis - Profiling of Synovial and Systemic Biomarkers

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## Abstract

Complement activation correlates to rheumatoid arthritis disease activity, and increased amounts of the complement split product C5a is observed in synovial fluids from rheumatoid arthritis patients. Blockade of C5a or its receptor (C5aR) is efficacious in several arthritis models. The aim of this study is to investigate the role of C5a and C5aR in human rheumatoid arthritis and psoriatic arthritis – both with respect to expression and function.

Synovial fluid, blood and synovial samples will be obtained from rheumatoid arthritis, psoriatic arthritis and osteoarthritis patients as a less inflammatory arthritis type, and blood from healthy subjects. Cells infiltrating synovial tissue will analysed by immunohistochemistry and flow cytometry. SF and blood will be analysed for biomarkers by flow cytometry or ELISA. The effect of a blocking anti-human C5aR mAb on leukocyte migration will be determined using a Boyden chamber. Appropriate statistical tests will be applied for comparisons.

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