

# Genetics of rheumatoid arthritis: A new boost is needed in Latin American populations

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Rheumatoid arthritis (RA) is an autoimmune inflammatory rheumatic disease which affects several organs and tissue, predominantly the synovial joints. Like many other autoimmune diseases, RA is a complex disease, where genetic variants, environmental factors and random events interact to trigger pathological pathways. Genetic implication in RA is evident, and recent advances have expanded our knowledge about the genetic factors that contribute to RA. An exponential increment in the number of genes associated with the disease has been described, mainly through gene wide screen studies (GWAS) involving international consortia with large patient cohorts. However, there are a few studies on Latin American populations. This article describes what is known about the RA genetics, the future that is emerging, and how this will develop a more personalized approach for the treatment of the disease. Latin American RA patients cannot be excluded from this final aim, and a higher collaboration with the international consortia may be needed for a better knowledge of the genetic profile of patients from this origin. © 2015 Elsevier Editora Ltda. All rights reserved.

Genetic susceptibility

Genome wide association studies

HLA

Rheumatoid arthritis

Single nucleotide polymorphism

autoimmune disease

environmental factor

genetic association

genetic variability

heredity

human

inflammatory disease

pathophysiology

Review

rheumatic disease

rheumatoid arthritis

South and Central America

genetic predisposition

genetic variation

genetics

rheumatoid arthritis

American

Article

genetic association

genetic disorder

genetic risk

genetic screening

genetic susceptibility

human genetics

international cooperation

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personalized medicine

population genetics

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Arthritis, Rheumatoid

Genetic Predisposition to Disease

Genetic Variation

Humans

Latin America