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## **Early life infections increase the risk of rheumatoid arthritis and juvenile idiopathic arthritis**

Paris, France, Friday 13 June 2008: Infections during the first year of life are a marker of increased risk of developing specific types of arthritis later in life, according to new research from Sweden presented today at EULAR 2008, the Annual Congress of the European League Against Rheumatism in Paris, France. Researchers from the Karolinska Institute in Sweden found that infants who were hospitalised for infection before their first birthday had an increased likelihood of developing either juvenile idiopathic arthritis (JIA) or adult rheumatoid arthritis (RA) in later life.

Investigator Dr Cecilia Carlens of The Karolinska University Hospital, Stockholm, Sweden, said: "Whilst recent research has suggested that early life infections are of importance to the maturation of the immune system in general, our analysis shows a link between perinatal infection and increased RA and JIA risk in particular, highlighting the importance of a child's formative months on his or her rheumatic health in later life."

The Swedish register-based case-control study reviewed recorded data on individuals born nationwide between 1973 and 2002, and involved 333 RA patients and 3,334 JIA patients. The analysis revealed that an increase in infections within the first 12 months is associated with an increased risk of developing JIA (odds ratio =1.9, 95% confidence interval 1.7-2.1) and sero-negative RA (odds ratio =2.6, 95% confidence interval 1.0-7.0), a distinct type of RA that is less aggressive than sero-positive RA.

However, other parts of the study suggested that perinatal characteristics, such as low birth weight (odds ratio =0.7, 95% confidence interval 0.5-1.0) and the duration of the gestational period may also affect arthritis risk in later life. A longer gestational period of over 42 weeks, emerged as a potential risk factor for developing JIA (odds ratio =1.5, 95% confidence interval 1.2-2.0).

The patient data reviewed was taken from the Swedish Inpatient Register and the Early Arthritis Register. Using the Swedish Medical Birth Register, four controls were randomly selected per case, matched by sex, year, and delivery-unit. Linkage to the Medical Birth Register and the Swedish Inpatient Register provided the necessary information on maternal-, pregnancy- and birth-characteristics, and infections during first year of life. Univariate odds ratios (OR) were calculated using conditional logistic regression.

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For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR congress press office on:

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## **About EULAR**

- The European League Against Rheumatism (EULAR) is the organisation which represents the patient, health professional and scientific societies of rheumatology of all the European nations.
- The aims of EULAR are to reduce the burden of rheumatic diseases on the individual and society and to improve the treatment, prevention and rehabilitation of musculoskeletal diseases. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with musculoskeletal diseases by the governing bodies in Europe.
- Diseases of bones and joints, such as rheumatoid arthritis and osteoarthritis cause disability in 4 - 5 % of the adult population and are predicted to rise as people live longer.
- As new treatments emerge and cellular mechanisms are discovered, EULAR 2008 brings together more than 12,000 experts - scientists, clinicians, healthcare workers, pharmaceutical companies and patients - to share their

knowledge in a global endeavour to challenge the pain and disability caused by musculo-skeletal disorders.

- To find out more information about the activities of EULAR, visit:  
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