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European League Against Rheumatism

## Increased alcohol intake associated with decreased risk of developing rheumatoid arthritis

## But smoking reduces alcohol's benefits

Barcelona, Spain, Friday 15 June 2007: New data presented today at EULAR 2007, the Annual European Congress of Rheumatology in Barcelona, Spain, suggests that alcohol may protect against rheumatoid arthritis, with three units a week exhibiting protective effects and ten units a week being more protective still. An alcohol consumption of three units per week or more also reduced the risk by smoking or by a genetic predisposition to RA.

An increased alcohol (ethanol) consumption of three or more units per week was associated with a decreased risk of developing RA (odds ratio 0.5, 95%; confidence interval 0.4 ·0.7). The findings could improve understanding of the effects of lifestyle on the risk of developing RA and pave the way for new potential treatment approaches based on the apparently beneficial effects of alcohol.

Henrik K 舁 Iberg at the Karolinska Institutet, Stockholm, Sweden, who is a PhD student said, Several previous studies have indicated a suppression of the immune system by alcohol and a recent study showed that it prevented development of destructive arthritis. However, until now, epidemiological investigations on the effects of alcohol on RA were scarce and inconsistent. These data now show not only that alcohol can protect against RA and reduce the risk conferred by smoking or susceptible genes, but also gives an idea of the relevant alcohol doses necessary. /p>

The EIRA research team that Henrik K 舁 Iberg belongs to conducted a population-based case-control study of incident cases of RA (according to American College of Rheumatology (ACR) 1987 criteria) among those aged 18-70 years in a defined area of Sweden. Cases and randomly-selected controls completed an extensive questionnaire regarding lifestyle factors, including alcohol consumption and smoking habits. DNA from 1,204 cases and 871 controls was examined to detect the presence of HLA-DRB1 SE alleles (a marker indicating genetic risk factor



for RA) and all cases were classified by presence of anti-CCP2 antibodies (anti-cyclic citrullinated peptide antibodies) to identify RA subtypes.

Gender-specific odds ratios for anti-CCP positive RA were calculated with 95% confidence intervals for subjects with different consumptions of alcohol (none, 3-5 units per week, >5 units per week), smoking and HLA-DRB1 SE alleles, compared with subjects less exposed to alcohol (0-3 units per week), using logistic regression models with adjustments made for possible confounders.

Professor Tore Kvien, President of EULAR, said, These are very interesting findings and are the first observation, from epidemiological data, which now should be confirmed by further clinical studies before a firm conclusion can be achieved. Furthermore, we assert the need for caution in the interpretation of these data. The misuse of alcohol is associated with a number of social and medical problems and any positive implications of alcohol must be coupled with the importance of moderation in alcohol consumption in accordance with standard national guidelines. •/p>

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