

Poster presentation

## Cytokine gene polymorphism in multiple sclerosis in a hellenic population

Alexios Routsonis\*<sup>1</sup>, Michael Daniilidis<sup>2</sup>, Marina Paschalidou<sup>1</sup>, Georgia Kokaraki<sup>3</sup>, Stamatia Magiria<sup>5</sup>, Eleftherios Stamboulis<sup>4</sup>, Konstantinos Voumvourakis<sup>4</sup> and Nikolaos Taskos<sup>1</sup>

Address: <sup>1</sup>Department of B Neurology, AHEPA University Hospital Aristotle University of Thessaloniki, Greece, <sup>2</sup>Immunogenetics Laboratory, First Department of Internal Medicine, Faculty of Medicine, Aristotle University of Thessaloniki, Greece, <sup>3</sup>Department of Genetics, Developmental & Molecular Biology, Faculty of Sciences, School of Biology, Aristotle University of Thessaloniki, Greece, <sup>4</sup>2nd Neurology Department of Medicine, Faculty of Medicine, Athens University, Greece and <sup>5</sup>3rd Department of Psychiatry, Aristotle University of Thessaloniki, Greece

\* Corresponding author

from International Society on Brain and Behaviour: 3rd International Congress on Brain and Behaviour Thessaloniki, Greece. 28 November – 2 December 2007

Published: 17 April 2008

*Annals of General Psychiatry* 2008, **7**(Suppl 1):S217 doi:10.1186/1744-859X-7-S1-S217

This abstract is available from: <http://www.annals-general-psychiatry.com/content/7/S1/S217>

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### Background

Multiple sclerosis (MS) is a chronic, complex, autoimmune, demyelinating disease that affects the Central Nervous System. Cytokine gene polymorphism according to the latest studies, may be considered as an important prognostic indicator in a vast number of autoimmune diseases.

### Materials and methods

We investigated 13 cytokine gene polymorphisms in 40 M/S patients and 104 healthy control group. From those 40 patients, 20 (group I) were presented with relapsing-remitting type of the disease and the other 20 (group II) with secondary progressive type. Cytokine gene polymorphism was determined by using the PCR-SSP method (Invitrogen, Dynal, Wisconsin, USA).

### Results

IL 1a - 889C/T genotype was more frequent in group I patients in comparison to group II (80% vs 40%,  $p < 0,001$ ). IL-2-330/+166 TG/TT and TNF $\alpha$  -308/-238 GG/AG genotypes were also statistically more frequent in group I than in group II (40% vs 10%,  $p < 0,0001$  and 50% vs 20%,  $p < 0,001$ ). IL1a -889 C/C genotype and IL4Ra +1902 A/A genotype were found more frequently in group

II than in group I patients (60% vs 20%,  $p < 0,001$  and 80% vs 50%,  $p < 0,0001$ ).

### Conclusions

These preliminary results of the present study suggest that gene polymorphism of the above cytokine may play a significant role in M/S patients evaluation and prognosis.