

Anxiety and depression were measured by the Hospital Anxiety and Depression Scale. Odds ratios for having anxiety or depression were estimated for the TT genotype with the CC + CT genotypes as reference.

**Results:** The MTHFR-TT genotype was associated with a significantly increased risk of depression (OR=1.62 CI: 1.09–2.41), whereas the risk for anxiety was not different from that of the reference group (OR=1.01 CI: 0.74–1.37).

**Conclusion:** Our data support the previous finding that the MTHFR-TT genotype confers increased risk of depression. The lack of association between the MTHFR-TT genotype and anxiety needs to be replicated.

## P22.07

Association between major depressive disorder and a specific haplotype of the CRH binding protein gene

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Recent research suggests that central CRH hyperdrive is an important neurobiological risk factor for developing major depression. The availability of free CRH in the CNS is tightly regulated by the expression of CRH binding protein (CRHBP). Therefore, the gene encoding for CRHBP is an important functional candidate gene for central CRH hyper drive and for the liability to develop major depression.

We present a systematic study of single nucleotide polymorphisms (SNPs) in the CRHBP gene, and their role in the liability for major depression. Eleven SNPs occurring in the general population were identified, 7 of which were subsequently genotyped in a well diagnosed sample of 92 patients with recurrent major depressions and matched controls. Two SNPs within the CRHBP gene were significantly associated with the disease. An expectation-maximization (EM) algorithm estimating haplotypes combining all 7 SNPs, estimated a specific haplotype to be present in 48% of the patients versus 24% of the controls. This represents a highly significant association. We conclude that the CRHBP gene is likely to be involved in the genetic vulnerability for major depression.

## P22.08

Interleukin-1beta gene promoter polymorphism and risk to functional psychosis

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**Objectives:** Interleukin-1beta is a cytokine implicated both in the inflammatory response and development of central nervous system. Genetic association between interleukin-1beta gene (IL-1B) and schizophrenia has been described in previous studies. However, little is known about the role of this gene conferring risk for other functional psychosis.

**Method:** For this study we examined 88 bipolar patients (DSM-III-R), 73 schizophrenic patients (DSM-IV) and 170 healthy controls, all of them of Spanish origin. The polymorphism Aval (-511), located in the promoter region of IL-1B gene, was analyzed in all subjects and the genotypic and allelic frequencies were calculated for each diagnostic group and controls.

**Results:** A significant excess of allele 1 was detected in schizophrenics compared to controls (P=0.01). Although similar tendencies were found for the total bipolar group, only patients with psychotic symptoms showed significant increase of allele 1 (P=0.01).

**Conclusions:** These results suggest: i) a possible role of allele 1 of IL-1beta gene in the vulnerability to schizophrenia and other functional psychosis and ii) schizophrenia and bipolar disorder could share some genes of risk, as has been suggested in the continuum hypothesis. Acknowledgments: This study was supported by a grant from Fundació "La Caixa" (99-111-000).

## P22.09

Th1 and Th2 relationship in schizophrenia – immunological, immunogenetic and therapeutic investigations

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We have hypothesised immunological abnormalities characterised by a decreased Th1 and an increased Th2 immune response in a distinct group of schizophrenic patients. To prove this hypothesis we performed biochemical, immunogenetic, and clinical investigations: Cytokine production by in-vitro stimulated lymphocytes; Molecular genetics of candidate Th1/Th2-related genes: IFN-gamma, IL-4, IL-12, IL-13 (patients/controls n=170 each); Clinical study using a COX2 inhibitor added to an antipsychotic medication (n=50 patients).

Our results suggest a subgroup of schizophrenic patients with reduced IFN-gamma production and increased IL-4/IL-13 production. The IL-13 gene A1082G promotor polymorphism, accompanied with more pronounced Th2 response, was more frequent in patients. Patients receiving the COX2 inhibitor showed a markedly faster reduction of psychotic symptoms, than patients of the placebo group.

Our complex but systematic results may have great impact for the identification of a subgroup of schizophrenia with immune-related pathophysiology and for the development of an immune-mediated therapy strategy in schizophrenia.

## P23. Geropsychiatry

### P23.01

States of loss of sense in late age and their role in creation of lingering depressive responses

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The purpose of the given operation was installation of link between experiences of sense of life and development of lingering depressive disorders in late age. The methods were applied: the special questionnaire, semi-structured interview, psycho biographical method with registration of significant acts of the person during all life, statistical method Fisher. 35 patients of late age (from 62 till 75 years) male and female with presence of experiences of loss of sense of life were researched. As a result of comparative researches is detected, that corrupting of higher personal senses of social and spiritual levels as a result of corrupting former outlook, ideals, loss of the close man, the dismissal with favourite operations result ined to creation of disorders of acclimatization as lingering depressive responses, dysthymias. Being superimposed on the primary psychogenic depressive disorders, which have arisen under influence of a serious stress, the secondary depressive disorders caused by losses