

rs6295, for 2A receptor rs643627, rs594242, rs6311 and rs6313, for 2C receptor rs547536, rs2192372, rs6318, rs2428707, rs4272555 and rs1801412, and for COMT rs737865, rs4680 and rs165599.

**Methods:** The sample was composed of three groups: two German samples, consisting of a healthy control group of 289 subjects (42.6% males, mean age:  $45.2 \pm 14.9$ ) and a psychiatric patient group of 111 suicide attempters (38.7% males, mean age:  $39.2 \pm 13.6$ ), and an Italian sub-sample, composed of 70 mood disorder patients (44.3% males, mean age:  $42.9 \pm 14.4$ ).

**Results:** Controlling for sex, age and educational level, single markers and haplotypes were not or only marginally associated with personality dimensions.

**Conclusions:** Our study does not support 1A, 2A, 2C and COMT role on personality traits.

### P0309

Voltammetric determination of neurotransmitters as biochemical markers in psychiatric diseases

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In the medical field, the monitoring of the neurotransmitters in depressive patients represents a major demand focusing of course on the health state of the patients, with social and economical effects. The efficient control of the health state cannot be realized with the help of the traditional chemical and/or biochemical methods precise and selective, but expensive and laborious. Traditional methods for identification and detection and of neurotransmitters lack the speed and sensitivity to be of real usage since that they are not real time or even typically completed in a single day. One possible solution is represented by the use of the chemically modified electrodes. The compatibility with micro-fabrication technology and the low cost of these devices make them promising tool for the rapid and inexpensive detection on-line of neurotransmitters.

In the study of phthalocyanine (PhC) chemistry, an area of particular interest in recent years has been the formation and characterization of polymeric compounds in various forms and the use of these compounds to carry out well known PhC applications involving catalysis, analysis, etc. Metallophthalocyanine (MPhC) complexes catalyze the detection of neurotransmitters. The catalytic activity of ferophthalocyanine towards different neurotransmitters was compared with those of Co and NiMPhC complexes. The chemically modified electrodes have been tested for the capacity to electrochemically detect dopamine, epinephrine and serotonin (5-HT). Interference of ascorbic acid in the CP modified electrodes response was also investigated. Applications on real samples will be considered.

### P0310

Association study for neurocognitive endophenotype and STin2 polymorphism in major depressive disorder

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**Background:** There has been extensive research concerning the role of the serotonin transporter gene (SLC64A) in depression. The STin2 VNTR polymorphism in the second intron has been found to influence the transcriptional activity of the gene, however, its relationship to major depressive disorder (MDD) has so far been less widely investigated.

**Methods:** 71 MDD patients and 99 healthy controls participated in a case-control study. In case of the two populations STin2 allele frequencies were compared. The subjects also completed several tests to establish neurocognitive endophenotypes related to MDD.

**Results:** A significantly higher frequency of the STin2 10/10 homozygous genotype in the MDD patients' group was found compared to controls ( $X^2=6.01$ ,  $df=2$ ,  $P<0.05$ ). The results of neurocognitive tests indicated cognitive dysfunctions in case of MDD patients compared to controls. The clinical subgroup with at least one copy of the 10-repeat allele showed a decreased interference threshold in attention and cognitive interference as compared to patients without the 10-repeat allele. Average performance of the clinical subgroup without the 12-repeat allele proved to be significantly weaker in the verbal learning memory and recall tasks compared to patients having at least one copy of the 12-repeat allele.

**Conclusion:** After further confirmation our results suggest that the presence of STin2.10 and absence of STin2.12 allele may be considered a possible genetic endophenotype for cognitive dysfunctions detected in MDD.

### P0311

Orexigenic and anorexigenic peptides do not differentiate two types of anorexia nervosa. The preliminary study

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**Background and Aims:** Anorexia nervosa is a serious eating disorder with highest mortality among psychiatric disorders. DSM-IV classification differentiates two type of Anorexia Nervosa (AN): the restricting type (AN-R) and the binge-eating/purging type (AN-BP). Orexigenic and anorexigenic peptides and cytokines are involved in mechanism of food intake and energy balance. Four young women suffered from Anorexia Nervosa (two with AN-BP and two with AN-R) took part in the study. Three girls were our reference group. The aim of our study was to estimate of differentiates genes between two types of Anorexia Nervosa: AN-R and AN-BP.

**Methods:** The total RNA was extracted from peripheral blood mononuclears. The oligonucleotide microarray method (HG-U133A, Affymetrix) was used to determine the expression profile of 161 transcripts for genes connected with AN. The oligonucleotide microarray method analyzes genes expression by using the phenomenon of hybridization of single-thread RNA fragments with complementary DNA probes. The results were normalized using RMAExpress. The Bland Altman method was used to examine transcripts of genes which differentiate two types of AN.

**Results:** Among 161 transcripts (cytokines, orexigenic and anorexigenic peptides) only cytokines have differentiated two type of