

stress-system appears to correlate with the dimensional personality characteristic that modulates sensitivity in social communication. Moreover, we have recently demonstrated that levels of hopelessness correlate with serotonin receptor functioning in the prefrontal cortex, which is involved in the generation and choice of response alternatives when confronted with particular problems, and with trait-dependent regulation of anxiety. It thus appears that two inter-related clusters of psychobiological characteristics are involved in the development of suicidal behaviour, i.e. (1) a sensitivity to interpersonal events and activation of the stress system and (2) prefrontal serotonin function, hopelessness and the regulation of anxiety.

### S43.3

The stress-system and suicidal behaviour

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The main objectives of our studies are to find adequate means of predicting recurrence of suicidal behaviour. In view of currently discussed theories on stress and kindling, we have lately concentrated on the role of stress in suicide attempts.

We study temperament, monoamines, steroids, and neuropeptides of patients who have deliberately harmed themselves, and we compare findings from them with findings from control populations.

Even though suicide attempters with major depression rate themselves significantly higher on trait anxiety than non-suicidal patients, suicide attempters form a heterogeneous group concerning temperament-ratings and biological findings. The most deviant patients (high trait anxiety, aggression, impulsiveness, suspiciousness combined with repeated suicide attempts) have low levels of steroids, monoamine-metabolites, and the neuropeptides CRH and NPY, while suicide attempters with normal temperament have high concentrations of e.g. cortisol, often corresponding with nonsuppression after dexamethasone administration.

We assume that "normal temperament" suicide attempters have not (yet?) reached the stage of sensitisation where the stress-system seems to be "burnt out". The genetic factors influencing body dissatisfaction and dieting-oriented behavior may constitute a part of the genetic vulnerability to eating disorders. These influences are likely to be age-specific and sex-specific.

### S43.4

UK legislation on analgesic pack sizes: impact on suicidal behaviour

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Because of the growing problem of self-poisoning with analgesics, especially paracetamol, in September 1998 legislation was introduced in the United Kingdom to limit the size of analgesic packs (of paracetamol, aspirin and their compounds). In this presentation the background and rationale for this legislation will be discussed. The results of a prospective investigation in which the impact of the legislation on subsequent mortality and morbidity associated with analgesic self-poisoning will be presented. This investigation has focused on changes in sales figures, self-poisoning with analgesics, impact of paracetamol overdoses on liver toxicity, referrals to liver units and liver transplantation, and finally and most importantly, the impact of the legislation on deaths from analgesic poisoning. Overall, the initial results seem to have been

very positive. Thus there was a decrease in paracetamol overdoses and in large overdoses of both paracetamol and aspirin. There are fewer liver transplants due to paracetamol liver damage. Finally, deaths from both paracetamol and aspirin self-poisoning decreased substantially. The implications of these findings for future trends and research will also be considered.

### S43.5

Efficacy of St. John's wort extract WS® 5570 in major depression – a double-blind, placebo-controlled trial

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**Objective:** In a double-blind, randomized, placebo-controlled trial in 375 patients we investigated the antidepressant efficacy and safety of 3 x 300 mg/day hydroalcoholic Hypericum extract WS® 5570.

**Method:** The study participants were male and female, adult out-patients with mild to moderate major depression (single or recurrent episode; DSM-IV criteria). Following a single-blind placebo run-in phase, 186 patients were randomized to WS® 5570 and 189 to placebo and received double-blind treatment for 6 weeks. Follow-up visits were held after 1, 2, 4 and 6 weeks. The primary outcome measure was the change versus baseline of the 17-item Hamilton Rating Scale for Depression (HAM-D) total score. In addition, an analysis of responders (patients with ≥50% HAM-D total score reduction versus baseline) was carried out and subscale/subgroup analyses were conducted. The design included an adaptive interim analysis performed after randomization of a total of 169 patients with options for sample size adjustment or early stopping.

**Results:** WS® 5570 produced a significantly higher reduction in HAM-D total score and significantly more treatment responders than placebo. Hypericum extract was more effective in patients with higher baseline HAM-D scores and led to global reduction of depression-related core symptoms as investigated by the HAM-D melancholia subscale. Both groups were comparable regarding adverse events.

**Conclusions:** Hypericum extract WS® 5570 was found to be safe and more effective than placebo for the treatment of mild to moderate depression.

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## S44. The dopamine D3 receptor and its ligands: psychiatric implications

*Chairs:* J.-C. Schwartz (F), G. Sedvall (S)

### S44.1

Increased levels of D<sub>3</sub> dopamine receptor mRNA in blood lymphocytes of schizophrenic patients

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Dopamine is a major neurotransmitter in the central nervous system and its receptors are associated with a number of neuropathological disorders such as Parkinson's disease and schizophrenia.