S41-4
FAMILIAL INFLUENCES ON IMPULSIVE BEHAVIOR: EVIDENCE FROM A TWIN STUDY

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We administered the Diagnostic Interview Schedule Version III Revised by telephone to 3,226 pairs of male twins from the Vietnam Era Twin Registry. We examined interview items for impulsivity and recklessness that reflect *DSM-III-R* diagnostic criteria for antisocial personality disorder. The heritabilities of impulsivity and recklessness were 41% and 48%, respectively. No influence from the family environment on these two variables was observed. New, more extensive data on impulsivity and related constructs are currently being collected from a random subsample of 100 twin pairs. Impulsivity is being measured as a multifaceted phenomenon in the new study. Impulsivity will be examined as an aspect of normal personality using the three scales from the Minnesota Personality Questionnaire that define the "constraint" factor: control (is reflective, careful, rational, planful), harm avoidance (avoids excitement and danger; prefers safe activities), and traditionalism (desires a conservative social environment). Impulsivity will be examined as an aspect of psychopathology using data from structured diagnostic interviews assessing attention-deficit/hyperactivity disorder and borderline and antisocial personality disorders. We will also examine cognitive/neuropsychological aspects of impulsivity using measures such as time-perception paradigm, measures of sustained attention, and related constructs. We will determine if there are significant associations among personality, clinical, and cognitive/neuropsychological aspects of impulsivity. We will also capitalize on the twin structure of the data to evaluate the extent to which genetic factors, the family environment, and the non-family environment influence the various aspects of impulsivity.

S41-5
ANIMAL MODELS

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Disinhibition of behaviour is an important factor in the concept of impulsivity. Impulsivity has to do with a differential ability to inhibit responses, and a deficit or a variation in the ability to passively avoid. In humans, impulsivity is widely occurring, both in normal individuals (extra version) and in psychiatric patients (Plutchik and Van Praag, 1995). These authors suggest that impulsivity contains a number of compounds, like risk taking and lack of control over affects. Moreover, impulsivity is regarded a trait rather than a state, indicating that it is seen as a personality characteristic instead of a transient event. Therefore, it can be hypothetized that impulsivity is mediated by "hard wired" brain mechanisms and that a generic background could be present. A reduction in serotonin neurotransmission in the brain has overwhelmingly been associated with various forms of impulsivity (Markowitz and Coccaro, 1995), including aggression and violence.

In the past I have hypothetized that the 5-HT_{1B} receptor could play an important role in the modulation of impulsiveness and aggression. 5-HT_{1B} receptor agonists (serenics) inhibit offensive aggression in a behaviourally specific way. Recently we started research using transgenic mice, including a 5-HT_{1B} receptor knockout. This animal can be characterized as "impulsive". It displays enhanced aggression, alcohol and cocaine intake, activity and reactivity to several stimuli. Telemetric studies showed disturbed circadian rhythmicity in heart rate and bodytemperature, whereas basal levels of heart rate were lower and body temperature were higher than the normal wildtype.

The 5-HT_{1B} KO-mice is presently under investigation for several aspects of "impulsivity", including delays of reward, aggression, sexual behaviour and learning capabilities.

S41-6
AN UPDATE OF PHARMACOTHERAPY OF IMPULSIVE BEHAVIOUR

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Impulsive behaviour can be observed transnosologically under various conditions and in various psychiatric disorders. Most severe forms of impulsive behaviour result in aggression and sucidial acts. Less severe forms are related to pathological gambling, uncontrolled buying, kleptomania, uncontrolled eating and drug intake.

Medicall related impulsive behaviours are occurring in various psychiatric disorders such as schizophrenia, bipolar disorder, personality disorders, alcoholism, eating disorders, OCD, GDT and dementia. The variety of occurrence of loss of impulse control suggest that pathophysiologically different neurotransmitter systems and neurocircuits maybe involved. Furthermore there are no clear boundaries between compulsivity and impulsivity. In relation to pathophysiological theories, different lines of treatment have been tried and evaluated. Impulsive and/or impulsive-aggressive behaviours have partly been attributed to a central disinhibition. Both, the possible role of dopamin and of serotonin for the pathophysiology have been suggested. In this line, there are many reports about the use of SSRI and antidopaminergic substances for the treatment of such disorders. In relation to the pathophysiology of bipolar disorders, mood stabilizers have been recommended as well. Futhermore, the use of an antiepileptic drug Plenytoin was reported. The presence of urge symptoms seem to be critical for the treatment with opioid antagonists such as Naltrexon and Nalmefene. Both seem to reduce the subjective experiences of pleasure and therefore have close connections to treatment strategies in alcoholism, such as anticraving substances e. g. Acamprosat, which could be of value too. The treatment of impulsive behaviours, after having been neglected, for a long time attach much more interest now. More carefully controlled studies with a better definition of the disturbances will be necessary

S42. Sexual dysfunction induced by psychopharmacological treatment: epidemiology, mechanisms and treatment approaches

Chairs: Z Zemishlany (IL), MD Waldinger (NL)

S42-1
SEXUAL DYSFUNCTION AND PSYCHOPHARMACOLOGY

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Controlled studies, clinical series, and case reports suggest that many commonly prescribed psychiatric drugs are associated with

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