

and devoid of intrinsic activity at the D₂R. This original pattern, evidenced on recombinant human receptors, was confirmed *in vivo* in rodent models in which the drug was active at doses ≤ 1 mg/kg p.o. either as agonist or antagonist depending on the test.

Following successful preclinical and Phase I clinical studies, BP 897 is now submitted to clinical trials in order to assess the potential of this novel class of drugs in neuropsychiatry. The potential antipsychotic activity of BP 897 is consistent with i) the localisation of the D₃R, ii) its enhanced expression in brain of schizophrenic patients, iii) association studies of a D₃R polymorphism in schizophrenia, iv) occupancy of the D₃R by all antipsychotics, v) efficacy of BP 897 in rodent schizophrenia "models". A double-blind placebo-controlled study of BP 897 in schizophrenic patients has been initiated.

Potential applications in drug abuse are consistent with i) localisation of the D₃R, ii) efficacy of BP 897 in rodent models of drug seeking behaviours, i.e. cue-conditioned responses related to cocaine, morphine or nicotine.

Double-blind placebo-controlled clinical trials were initiated assessing relapse in tobacco smokers and alcohol abusers and are planned in cocaine addicts.

S44.5

Eye movement disturbances and dopamine D3 receptor gene

J.K. Rybakowski¹*, A. Borkowski¹, P. Czerski¹, J. Hauser¹.
¹Department of Adult Psychiatry, University of Medical Sciences, Poznan; ²Department of Psychiatry, University Medical School, Bydgoszcz, Poland

Eye movement disturbances occur in a majority of patients with schizophrenia and in a proportion of their first-degree relatives and they have been postulated as a phenotypic marker of this illness. Molecular genetic studies of dopaminergic system may suggest a possible involvement of dopamine D3 receptor (DRD3) gene in some aspects of schizophrenia. The aim of the study was to measure an association between the intensity of eye movement disturbances (fixation and smooth pursuit) and the Ser9Gly polymorphism of DRD3 gene in 119 schizophrenic patients (74 male, 45 female). Eye trackings were measured by the infrared reflectometry method and the intensity of disturbances was quantified on 0–3 scale. The mean intensity of both kinds of disturbances was highest in Ser/Ser, significantly lower in Ser/Gly and lowest in Gly/Gly genotype. Ser/Ser genotype was more prevalent in patients with higher intensity of both fixation and smooth pursuit disturbances, and Ser/Gly genotype frequency was lower in patients with higher fixation disturbances. The results suggest that DRD3 gene polymorphism may be a contributing factor to eye movement disturbances, a phenotypic marker in schizophrenia.

S45. Internet strategies for a non-governmental organisation

Chairs: C.B. Pull (L), N. Lindefors (S)

S45.1

Information technology and future society

K. Olausson*. *The Interactive Institute, Sweden*

The Interactive Institute, a national, interdisciplinary research institute working in the borderland between art, technique and

communication. Kenneth Olausson is president for the company which is free-standing, independent and is supported by funds from the Swedish industry, universities and college organizations and The Swedish Foundation for Strategic Research, who also own the Institute. The Institute is built gradually, shaped as studios around the country. Today there are studios in Stockholm, Malmö, Gothenburg, Umeå, Piteå, Visby and Växjö and approximately 150 researchers are today tied to the Institute.

The activities in a studio are characterized by innovative use of art and technique. Every studio has a unique aim, with the basic idea that a mixture of different disciplines creates totally new activity within research and development that no one earlier dared, which in return will lead to new products, services and companies. More information about The Interactive Institute can be found on <http://www.interactiveinstitute.se>.

S45.2

Using Internet in clinical and epidemiology studies

J.-E. Litton*. *Stockholm, Sweden*

The Internet clearly has a role to play in today's information age and will become increasingly important in our communications, our work life and our daily activities.

The medical use of the Internet presents enormous opportunities and challenges. Some of the promises that the Internet holds for medicine has been tentatively explored. However, the Internet potential as a mean in clinical and epidemiology studies remains largely untapped.

Using information technology in clinical and epidemiology studies new creative research strategies to advance digital forms can be used. It is not only web-forms on Internet that can be used, mobile phones, digital TV and PDA are others examples of items in the new electronic village that will give new possibilities in this studies. Not only new studies can be performed, the speed and access to database solutions using software like Extensible Markup Language (XML) will also change the way clinical and epidemiology strategies will be handled in next decade. XML is on its way to become a global standard for the representation, exchange, and presentation of information on the Web. More than that, XML is creating a standardisation framework, in terms of an open network of meta-standards and mediators that allows for the definition of further conventions and agreements in specific domains. This story of the evolution of a standardisation framework doubtlessly will end successfully in the case of XML, and I suggest that it should be considered as a generic model for standardisation processes in the future for clinical and epidemiology studies using new menus for digital forms.

S45.3

Treatment of mental disorders via the Internet

G. Andersson¹*, P. Carlbring¹, L. Strom¹, V. Kaldö-Sandström¹, L. Ekselius². ¹Department of Psychology; ²Department of Neuroscience/Psychiatry, Uppsala University, Sweden

Self-help treatment for mental disorders has gained increased popularity. Until recently, computer mediated therapies have been offered without any patient-therapist interaction. However, there now seems to have been a shift toward using the World Wide Web (WWW), to inexpensively administer self-help treatment instructions, in conjunction with some sort of text-based human interaction (e-mail). In our research program we have conducted seven randomized controlled trials for different conditions (e.g.,

panic disorder, insomnia). The treatment has consisted of cognitive-behavioral self-help programs supported by e-mail interaction. Effect sizes in these studies are equivalent to previous self-help studies on problems like panic disorder, and indicate that Internet-based treatment can serve as a cost-effective complement to psychological and psychiatric treatment. Important issues when implementing Internet-based treatment in clinical practice involve diagnoses, suitability, and compliance. Whereas self-report inventories can easily be adapted for Internet use, with similar psychometric properties as paper-and-pencil tests, it is more difficult to obtain reliable information on diagnoses. Future studies should address differences between ordinary and Internet-based treatments, and also the use of Internet-based treatment as an adjunct to pharmacological treatment.

S45.4

What can Internet add to psychiatry?

N. Lindfors*. *Department of Clinical Neuroscience, Psychiatry Section, Karolinska Institute, Stockholm, Sweden*

Computer assisted support is becoming increasingly important in clinical practice. The introduction of computerised patient records may provide a base for the development of knowledge directed psychiatry. In association with online access to data bases with diagnostic manuals and treatment programs the desk top computer may thus facilitate the development of safer medical treatments. Decision assistance during the planning of drug prescription with interaction information online may also facilitate safer treatment. Internet provide a diversified and complex avenue through the World Wide Web to acquire information on various aspects of psychiatry. For patients as well as professionals Internet Health sites with medical information have increased the awareness of alternatives for diagnosis and treatments. This is both educational and helpful but provide a challenge for the professional since it may empower some of the patients and their relatives with provocative arguments and suggestions. Internet Health sites hopefully facilitate patient self help and may be adopted for structured patient education. Clinical education and professional development through online CME with Clinical Update is widely provided but the accreditation and quality control needs to be more systematic. Examples of development of Internet applications in the near future are support systems with SMS as reminders and online booking for psychiatric consultations.

S45.5

Internet strategies for AEP

C.B. Pull*, J.M. Cloos. *Centre Hospitalier de Luxembourg, Luxembourg*

The Association of European Psychiatrists (AEP) was founded to foster communication between psychiatrists in Europe in all major fields, including in particular clinical practice, training, research and ethics. To achieve these aims, the AEP organizes European Congresses (every second year), spring and autumn symposia (in the years between Congresses), as well as a number of section symposia.

The AEP was founded before the beginning of the area of the Internet. During the first years of its existence, work in the AEP committees and sections were performed in a traditional way. This proved to be a haunting and sometimes frustrating task.

With the availability of the Internet, it has become possible to considerably develop and enhance communication between the

members of the different AEP Committees, sections and other members.

The authors will describe the current version of the AEP Internet site and discuss future strategies for using the Internet to achieve the goals set up by the founders of the AEP.

S46. Data bases for psychiatric research

Chairs: H. Hall (S), C. Wahlestedt (S)

S46.1

deCODE genetics

K. Stefansson. *Iceland*

No abstract was available at the time of printing.

S46.2

Computer-based characterization of phenotypes for genetic and pharmacogenetic studies in psychiatry

H. Fangerau*, T.G. Schulze, F. Illes, S. Ohlraun, D.J. Müller, W. Maier, M. Rietschel. *University of Bonn, Department of Psychiatry, Germany*

Genetic factors play an important role in the aetiology of psychiatric disorders as well as in patient's individual response to medication.

In order to identify those genetic factors large sample sizes are required as we are not looking for major genes but for vulnerability genes with minor effects. Furthermore, even larger samples sizes are required for the obligatory replication studies.

In general those sample sizes can only be obtained by involving different clinical centres. A serious problem of multi-centre studies however is heterogeneity of phenotype characterisation, which can be deleterious for molecular genetic studies.

We developed a computer-based questionnaire to assess life-time symptomatology and to perform DSM diagnoses. The program is based on validated interviews for which translation in different languages already existed or has been made available by us.

The use of this computer-based questionnaire allows homogeneous phenotype characterisation by different study sites, easy data transfer and the possibility for psychiatrists of validating their colleagues' diagnoses even if they do not speak the same language.

This questionnaire is already successfully applied at co-operating centres in Europe, Asia and Latin-America.

S46.3

Genetic databases

C. Wahlestedt*. *Center for Genomics and Bioinformatics (CGB), Karolinska Institute, Stockholm, Sweden*

Bioinformatics (Computational Biology) has emerged as an essential discipline in the era of genome-scale biology. The advancement of high-throughput technologies for sequencing, genotyping, expression analysis and proteomics facilitated a burst in life sciences data incomprehensible a mere 10 years ago. Despite the exciting developments in data generation, the ability to query, obtain and analyze the data remains limited to a small population of scientists bridging the gap between Information Technology and Biological Sciences. With increased emphasis on bioinformatics education as well as development of more user friendly tools and databases, the