

cannabis use is related to panic attacks, anxiety, depression, and low motivation. It would appear that frequent cannabis use during adolescence is predictive of later depression and anxiety. Cannabis has also been related to amotivational syndrome in chronic users. This disorder is characterized by a personal deterioration with loss of energy and work drive, but the validity of this syndrome remains uncertain. Epidemiological studies have shown a clear association between cannabis use and psychosis, mainly adult schizophreniform disorders. Recent studies have identified a higher frequency of disturbance in sensorium, irritability, affective disturbances, derealization/depersonalization, and visual hallucinations in cannabis induced psychosis than in acute schizophrenia psychosis. Schizophrenia with substance abuse has been associated with poor treatment compliance, increased rates of hospital admissions, suicide, violent behavior and unstable housing and homelessness. Cannabis use specifically has been correlated with the exacerbation of psychotic symptoms and increased tardive dyskinesia. It may be the case that schizophrenic patients are inclined to consume cannabis, either due to lowered impulse control or as a means of reducing negative symptoms. On the other hand, it may be that cannabis use itself either causes or precipitates psychosis. In short, the association between cannabis use, psychosis, depression, behavioral problems, tobacco smoking, excessive drinking and use of illicit drugs shows a severe pattern of comorbidity that may lead to further negative outcomes, and requires further study for the identification of appropriate treatments.

### S06.03

An update on the neurobiology of cannabis addiction

R. Maldonado. *Laboratory of Neuropharmacology. University Pompeu Fabra, Barcelona, Spain*

The endocannabinoid system has been involved in a variety of physiological functions, including the control of nociception, motor behaviour, learning/memory, reward, neuroprotection, food intake and metabolism. This system is mainly activated in response to external stimuli to help establish the steady-state homeostasis of other neurotransmitters and mediators. Recent studies have involved the endocannabinoid system in the common neurobiological substrate underlying drug addictive processes. This system participates in the primary rewarding effects of cannabinoids, nicotine, alcohol and opioids through the release of endocannabinoids in the ventral tegmental area. Endocannabinoids are also involved in the motivation to seek the drug by a dopamine-independent mechanism demonstrated for psychostimulants and opioids. The endocannabinoid system participates as well in relapse to drug-seeking behaviour by mediating the motivational effects of drug-related environmental stimuli and drug re-exposure. In agreement, clinical trials have revealed the effectiveness of the CB1 cannabinoid antagonist rimonabant to obtain smoking cessation. CB1 cannabinoid antagonists could represent a new generation of compounds to treat drug addiction.

### S06.04

In vivo measurement of neuronal dopamine transporter in cannabis dependant subjects, with positron tomography and [11C]-PE2I

C. Leroy<sup>1</sup>, M. Lukasiewicz<sup>2</sup>, C. Trichard<sup>1</sup>, C. Comtat<sup>3</sup>, R. Trébossen<sup>3</sup>, M.J. Ribeiro<sup>3</sup>, M. Reynaud<sup>2</sup>, J.L. Martinot<sup>1</sup>.  
<sup>1</sup> *Institute for Health and Medical Research (INSERM) and Atomic Energy Commission (CEA), Research Unit Neuroimaging in Psychiatry, Research Unit INSERM-CEA U797 Neuroimaging and Psychiatry, Frederic Joliot Hospital Department, Orsay, France*  
<sup>2</sup> *Department of Psychiatry and Addictology, APHP, Paul Brousse Hospital, Villejuif, France*  
<sup>3</sup> *Atomic Energy Commission (CEA),*

*Direction of Life Sciences, Department of Medical Research, Frederic Joliot Hospital, Orsay, France*

Dopaminergic system within mesocorticolimbic circuit plays a crucial role in addictive behaviors. However, no data to date are available concerning the effect of cannabis addiction on dopaminergic neurotransmission in humans. The neuronal dopamine transporter (DAT) ensures the regulation of dopaminergic neurotransmission by the re-uptake of extracellular dopamine. Observation of DAT density anomalies within the mesocorticolimbic system in cannabis-dependant subjects could provide further evidence for the implication of dopaminergic dysfunction in cannabis addiction. Thus, this work aims at the study of DAT density in control, tobacco-dependents subjects and cannabis-dependants subjects, gender and age-paired with Positron Emission Tomography (PET).

Subjects are scanned on High Resolution Research Tomograph (HRRT) for one hour after injection of a selective DAT radioligand ([11C]-PE2I). The binding potential (BP) in regions of interest previously defined within the mesocorticolimbic circuit was calculated using a simplified reference tissue of Lammertsma in order to measure an index of DAT density. BP-obtained in each group: control, tobacco-dependents and cannabis-dependents subjects, were compared with t-tests. Preliminary results will be presented during the seminar.

### S06.05

An update on state of the art treatment of cannabis dependence

A. Benyamina. *Algeria*

Abstract not available at the time of printing.

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## S07. Symposium: SOCIAL COGNITION IN SCHIZOPHRENIA: THE KEY FOR SUCCESSFUL CBT INTERVENTIONS (Organised by the AEP Section on Schizophrenia)

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### S07.01

Social cognition and theoretical framework

F. Palha. *UISMEP - Unidade de Investigacao em Saude Mental e Psiquiatria, Centro Hospitalar Conde de Ferreira, Porto, Portugal*

In recent years, social cognition became a valuable construct for understanding the nature and disability of schizophrenia (Green et al, 2005), and different studies have pointed out for its potential as a mediator of relations between neurocognition and functional status in schizophrenia (Sergi et al, 2006).

This presentation aims to review the concept of social cognition, describe the key social cognitive domains, discuss the importance of social cognition in schizophrenia by highlighting its functional significance, and finally present a brief overview of the main methodological issues regarding research on some of the presented issues.

### S07.02

Affect recognition in schizophrenia: impairments and treatment

W. Woelwer, N. Frommann. *Department of Psychiatry and Psychotherapy, Heinrich-Heine-University, Dusseldorf, Germany*