



PostDoc Job Opportunity



DUBLIN CITY UNIVERSITY	First Name	Last Name	email	Institute	Address
PI name & contact details:	Styliani (Stella)	Vlachou	stella.vlachou@dcu.ie	DUBLIN CITY UNIVERSITY	Glasnevin, Dublin 9, Ireland.
School:	Nursing and Human Sciences				
Research Centre/ group affiliation:	Behavioural Neuroscience Laboratory				
Research group/ centre website:	Dr. Vlachou Research Group (Staff webpage: http://www.dcu.ie/info/staff_member.php?id_no=4433)				

Brief summary of research group/ centre activity:

The research group of Dr. Vlachou, which is new and currently been formed, focuses on the effects of drugs of abuse and their interactions on behaviour, impulsivity, attentional performance and brain reward mechanisms. It is also interested in the effects of natural compounds, such as phytochemicals, in cognitive performance and brain reward mechanisms.

Description of postdoctoral project on offer:

Nicotine and cannabis are among the most widely abused drugs and are often used in combination or as a progression in addictive substance use particularly among adolescents and young adults. Indeed, nicotine appears to be a potent gateway drug for illegal drugs, such as marijuana, and adolescent tobacco smokers are most likely to smoke marijuana than those who do not smoke tobacco. Meanwhile, impulsivity in humans is strongly associated with habitual tobacco smoking, cannabis use and drug dependence. Further, there is clinical and preclinical evidence of functional brain interactions between nicotine and natural or synthetic cannabinoid compounds in relation to reward-related processes and cognitive deficits. Thus, the current project aims to assess the effects of nicotine and/or cannabinoid exposure during adolescence on impulsivity levels, and/or reward/reinforcement, and vice versa, during adulthood in high and low impulsive Sprague- Dawley rats. The procedures that will be used in this project are behavioural procedures used in rodents to investigate reinforcing, rewarding and cognitive effects of drugs of abuse. Overall, the findings of the proposed behavioural project may have exciting implications about the prevention of smoking and use of cannabis among adolescents, as well as the treatment of chronic tobacco smokers and cannabis users with different personality traits when they are pre-exposed to either nicotine or a cannabinoid compound or both during adolescence. These findings may suggest that chronic exposure to either nicotine or a cannabinoid compound or both during adolescence may affect impulsivity levels and responses to rewarding stimuli during adulthood and thus may affect treatment outcomes and change our approach to drug development for the treatment of drug dependence and associated pathological states. The project duration will be 24 months.

Please indicate the core skills or disciplines that are required for this position:

Disciplines: Behavioural Neuroscience; Psychopharmacology; Statistics for Biomedical Research.
Research and Technical Skills (desired, not required): Behavioural testing in basic research procedures such as the intravenous self-administration or the intracranial self-stimulation, common surgical and histological techniques, such as stereotaxic surgery and intravenous catheter implantation, administration of drugs.