

DSV Seminars

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UNIVERSITÀ
DEGLI STUDI DI TRIESTE



DIPARTIMENTO DI
SCIENZE DELLA VITA

PhD Program in Neural and Cognitive Sciences

Tuesday, October 17 2017 - 02:30pm

Aula Magna, M Building – Via L. Giorgieri, 10

Francesco VERSACE

The University of Texas MD Anderson Cancer Center
Department of Behavioral Science

Host: Prof. Corrado Cavallero

Addiction and

brain reactivity to rewards

Implications for smoking and eating behaviors

Neurobiological models of addiction posit that drug use can alter reward processes in two ways: 1) by increasing the motivational relevance of drugs and drug-related cues and 2) by reducing the motivational relevance of non-drug-related rewards. I will present the results from a series of neuroimaging studies in which we assessed the extent to which these hypotheses apply to nicotine dependence. By recording smokers' and nonsmokers' brain responses to a wide array of motivationally relevant visual stimuli, we showed that only some individuals attribute high levels of motivational relevance to stimuli predicting nicotine. Identifying smokers attributing higher motivational relevance to drug-related cues than to non-drug-related rewards is clinically relevant, as these individuals have more difficulties in achieving long-term smoking abstinence when attempting to quit. Finally, I will show how the approach that we used to study nicotine dependence can inform theoretical and clinical research in the study of obesity.

