Drugs, neuroplasticity and the transition to addiction *Robinson TE* Department of Psychology and Neuroscience Program, University of Michigan, Ann Arbor, MI, USA

A fundamental question in addiction research concerns why some susceptible individuals undergo a transition from drug use to addiction. Recent studies suggest that the transition to addiction is due in part to a drug-induced reorganization of brain systems involved in incentive motivational processes (such as the nucleus accumbens) and brain systems involved in decision-making and judgment that usually exert inhibitory control over behavior (such as the prefrontal cortex).

This lecture will focus on some of the long-term neurobehavioral consequences of repeated exposure to drugs of abuse, conditions that promote or retard drug-induced neuroplasticity and the effects of drug-induced changes in mesolimbocortical circuitry for behavior and psychological function.

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