

Cocaine cravings are studied

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U.S. scientists say they have found the brain chemistry that underlies "cue-induced" craving in cocaine addicts.

Scientists from the National Institute on Drug Abuse, the Brookhaven National Laboratory and the University of Pennsylvania say their finding suggests new targets for medications aimed at treating addiction.

"Drug craving triggered by cues -- such as the sight, smell, and other sensory stimuli associated with a particular drug like cocaine - is central to addiction and poses an obstacle to successful therapy for many individuals," said NIDA Director Nora Volkow, lead author of the study. "If we can understand the mechanisms related to cue-induced craving, we can develop more effective treatment strategies to counteract it."

Previous research conducted at Brookhaven and elsewhere has shown that all addictive drugs increase the level of dopamine -- a neurotransmitter associated with feelings of pleasure -- in a part of the brain known as the nucleus accumbens.

Scientists measured dopamine levels in various parts of the brains in 18 cocaine addicts as they watched a "cocaine-cues" video featuring people buying and using cocaine, and as they watched a "neutral" video of natural scenery.

The study is detailed in the *Journal of Neuroscience*.

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