

# Fighting Addiction & 'War on Drugs' with Science



By Josh Bloom — September 16, 2015



If there is anything we could use in this country, it's a better

way to fight the war on drugs -- an ongoing battle that sometimes seems hopeless. One could argue that every measure that has been put into place has not only failed to control the massive addiction problem in this country, but, actually has made it worse.

Help from the scientific community is on the way, but unfortunately it won't be arriving anytime soon. Research is underway that's probing the mechanisms of cravings in the brain, with the goal of blocking the craving that feeds addiction.

Three papers on this topic have recently been released, all coming out on the same day.

Here are the highlights:

- A new type of glutamate receptor, when activated, was shown to reduce a relapse in cocaine use in rats pretreated with a drug that activated the receptor
- An AstraZeneca drug called AZD8529 has shown some interesting effects in squirrel monkeys
- Dr. Zuzana Justinova, from the National Institute on Drug Abuse, speaking of AZD8529 said, "our results from non-human primate models suggest that AZD8529 could provide a novel safe and effective treatment for nicotine addiction"
- Another group at the same institute also studying the effect of AZD8529 on methamphetamine cravings in rats found that it reduced cravings and self-administration of methamphetamine
- All three studies suggested that activation of this receptor, called mGluR2, could play an important part in supplying a much-needed tool against drug addiction

Dr. John Krystal, editor of the journal *Biological Psychiatry*, said, "it is unusual to have three papers supporting a new treatment mechanism emerge at the same time. Enhancing mGluR2 function may hold promise for the treatment of addiction."

This is very early research, but, given the abject failure of virtually all addiction control methods, any new mechanism or drug to exploit it would be hugely important. This could make it possible to moderate the craving for addictive drugs, and potentially put a dent in the serious and growing

drug abuse and addiction that's gripping the country.

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