

Press Release

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FOR IMMEDIATE RELEASE

CONTACT:

Dr. Sharon Harris

516- 676-2008

safeglencove@yahoo.com

SAFE Glen Cove Coalition: NIDA Study Says Corticosteroid Sensitization Drives Opioid Addiction

The National Institute on Drug Abuse (NIDA) recently published a new study conducted by researchers from nine institutions, led by the Integrative Neuroscience Research Branch in the NIDA Intramural Research Program who investigated the role of brain stress systems in driving opioid addiction-like behavior.

The sharp increase in opioid overdose-related deaths facilitated the urgent search to uncover the biological mechanisms of opioid use disorder (OUD) with the goal of identifying potential therapeutic targets. Opioid withdrawal is a severely emotionally painful state (hyperkatifeia) that activates specific stress-engaged brain circuits. Intense stress leads to high levels of corticosteroids, such as glucocorticoids, circulating in the body. The researchers found evidence for glucocorticoid receptor-dependent changes in stress systems in opioid dependence across three species: humans, rats, and zebrafish.

Blocking glucocorticoid receptors reduced opioid addiction-like behaviors in male and female rats and zebrafish. It also decreased a marker of brain stress system activation, excitability of corticotropin-releasing factor neurons, in the rat amygdala. The researchers additionally found evidence for adaptations in glucocorticoid receptor signaling in the amygdala of humans with OUD.

The researchers maintain that this brain system may represent a target to treat the “stress side” of OUD.

NIDA is a component of the National Institutes of Health, U.S. Department of Health and Human Services and supports most of the world’s research on the health aspects of drug use and addiction. For more information about NIDA and its programs, visit www.nida.nih.gov.

The SAFE Glen Cove Coalition is conducting an opioid prevention awareness campaign entitled. “Keeping Glen Cove SAFE,” in order to educate and update the community regarding opioid use and its consequences. To learn more about the SAFE Glen Cove Coalition please follow us on www.facebook.com/safeglencovecoalition or visit SAFE’s website to learn more about the Opioid Epidemic at www.safeglencove.org.

