

Epigenetics involved in cocaine addiction

Scientists from the Icahn School of Medicine at Mount Sinai say they have identified a new molecular mechanism by which cocaine alters the brain's reward circuits and causes addiction. They published their study, "Essential role of poly(ADP-ribosyl)ation in cocaine action," in the Proceedings of the National Academy of Sciences.

The researchers say their preclinical research shows how an abundant enzyme and synaptic gene affect a key reward circuit in the brain, changing the ways genes are expressed in the nucleus accumbens. The DNA itself does not change, but its epigenetic mark activates or represses certain genes encoding synaptic proteins within the DNA. These epigenetic changes alter the activity of the nucleus accumbens.

Read the full, original story: [New Light Shed on Role of Epigenetics in Cocaine Addiction](#)