## New opioid promises 'gold standard' pain relief without the addiction

Opioid drugs like morphine and Oxycontin are still held as the gold standard when it comes to relieving pain. But it has become brutally obvious that opioids have dangerous side effects, including physical dependence, addiction and the impaired breathing that too often leads to death from an overdose. Researchers have long been searching for a drug that would relieve pain without such a heavy toll.

. . .

Now a study in monkeys published in Science Translational Medicine shows a new type of opioid drug met all the criteria on drug developers' wish list. The findings even suggest that instead of causing addiction, the new compound might be used to curb addiction and pain all at once.

. . .

Opioid drugs relieve pain by acting at four types of opioid receptors found throughout the nervous system. The mu opioid receptor is primarily responsible for opioids' pain-relieving effects.

. . .

Studies of [another receptor,] NOP, have shown that it too has analgesic effects in rodents—but seemingly without the side effects.

. . .

Even at higher doses, AT-121 did not cause the side effects that make most opioids so dangerous—suppression of breathing and heart rate, itch and physical dependence (in which stopping use leads to withdrawal symptoms). Even after several doses AT-121 retained its analgesic effect whereas most opioids require an increasing dosage over time to achieve pain relief.

**Read full, original post:** Too Good to Be True? A Nonaddictive Opioid without Lethal Side Effects Shows Promise