Docket #: S08-170

Methods and compositions for treating or preventing narcotic withdrawal symptoms

Researchers at Stanford University have developed a newly patented method for reducing the physiological symptoms of opioid withdrawal by targeting a well-characterized receptor. The inventors have demonstrated the utility of this approach in both a mouse model and an acute morphine administration model in humans. Unlike current treatments for opioid withdrawal, this strategy does not rely on controlled substances or medications with significant hemodynamic side effects. The approach could be applied using either existing FDA-approved compounds or new agents. In addition, by combining this technology with narcotics, new products could be developed that alleviate influences that contribute to the misuse of prescription opioids.

Stage of Research
The inventors have validated the technology in mouse and human models of withdrawal.

Applications

- **Addiction treatment** - to reduce physiological withdrawal symptoms
- **Pain treatment** - in combination with narcotics, to reduce risk of dependency

Advantages

- **Existing agents** - there are marketed products that target this receptor for other indications

- **No controlled substances** - unlike methadone or buprenorphine, this strategy does not rely on administration of controlled substances
- **Minimal side-effects** - unlike clonidine, agents that target this receptor do not have significant hemodynamic side effects

Publications

- Chu LF, Liang DY, Li X, Sahbaie P, D'arcy N, Liao G, Peltz G, David Clark J. From mouse to man: the 5-HT3 receptor modulates physical dependence on opioid narcotics. Pharmacogenet Genomics. 2009 Mar;19(3):193-205.

Patents

- Published Application: 20100144754
- Published Application: WO2010065930
- Issued: 9,226,918 (USA)

Innovators

- Gary Peltz
- David Clark
- Larry Chu

Licensing Contact

Seth Rodgers

Licensing Manager, Life Sciences

Email