

Atelerix Life Sciences Announces Publication Demonstrating Reversal of Opioid Induced Respiratory Depression

CHARLOTTESVILLE, VA, UNITED STATES, May 19, 2021 /EINPresswire.com/ -- Atelerix Life Sciences Inc., a Charlottesville, Virginia-based biotechnology company developing novel small molecule therapeutics for the treatment of unmet opioid-related medical needs, announced today the publication of a study in the Nature Journal Scientific Reports demonstrating that the Company's lead molecule ATX – 0199 (also called sudaxine) reverses morphine's life-threatening effects on breathing while augmenting desired pain relief. The paper, entitled "D-Cystine di(m)ethyl ester reverses the deleterious effects of morphine on ventilation and arterial blood gas chemistry while promoting antinociception,"¹ suggests that ATX – 0199 differentially affects intracellular signaling that controls respiratory depression, pain relief, and sedation.

When administered to patients, a drug with these attributes would be particularly advantageous for those experiencing breathing difficulties from opioids administered for pain relief following surgery. Currently, the only approved drugs able to reverse the negative effects of opioids on breathing also counteract their pain relief, making them poor choices for use in the post-surgery hospital setting

A full copy of the study is available at [ATLX Scientific Reports Paper](#).

"The problem of opioid-induced depression of breathing is something I encountered on a daily basis as a practicing pulmonologist, and a solution is very much needed," said Ben Gaston, MD, Professor of Pediatrics and Vice Chair for Translational Research at the Herman B Wells Center, Indiana University School of Medicine. Dr. Gaston is also an Atelerix co-founder, co-inventor of ATX- 0199, and first author of the article. "Remarkably, the new class of drugs which we are developing reverses respiratory depression both from opiates and from benzodiazepines, and it does it without blunting analgesia."

About Atelerix Life Sciences Inc.

Atelerix Life Sciences Inc is a preclinical biotech company developing a platform technology of new drugs targeting unmet medical needs arising from the opioid crisis. This novel drug family, including lead compound ATX-0199 (D-Cystine di(m)ethyl ester, also called sudaxine), addresses death and morbidity from opioid-induced respiratory depression (OIRD) and other opioid-related conditions. The current approach to the problem of opioid side-effects is to

administer opioid receptor antagonists such as naloxone, which can reverse life-threatening side-effects. These, however, carry significant risks and limitations, particularly as they immediately suppress pain control, limiting how useful they can be in the surgical setting. Our solution is found within a new platform of small molecule drugs called Active Thiol-Based Compounds (ATBCs) targeted at safely preventing or reversing opioid-induced side effects via a novel molecular pathway, without the risks or limitations of current approaches.

Source: www.Atelerix Life Sciences.com

1. D-Cystine di(m)ethyl ester reverses the deleterious effects of morphine on ventilation and arterial blood gas chemistry while promoting antinociception, Nature Scientific Reports (2021) 11:10038 <https://rdcu.be/ckof3>

Contacts:

Corporate

David Gregory Kalergis
Atelerix Life Sciences Inc.
+1 434-825-1834
[email us here](#)

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