

## **Serina Therapeutics Announces Award from the NIH Helping to End Addiction Long-Term (HEAL) Initiative to Develop SER-227 – A Pain Drug that will Simultaneously Target Opioid Misuse and Addiction**

Huntsville, AL, September 30<sup>th</sup>, 2019

Serina Therapeutics, Inc., a pharmaceutical research and development company that has developed a proprietary drug delivery technology platform, announced today it has received an NIH grant to develop its product candidate SER-227 for post-operative pain.

The funding is supported by the National Institutes of Health (NIH) and the National Institute of Neurological Disorders and Stroke (NINDS) through the Helping to End Addiction Long-Term, or NIH HEAL Initiative, and is for a period of two years. The resources will be used to complete the product development and pre-clinical studies required to support the initiation of clinical trials.

“This is a very important initial step in getting this new and promising medication into patients who need treatment for post-operative pain”, said Dr. Tacey Viegas, Serina’s Chief Operating Officer and Project Director and Co-Investigator. SER-227 is a polymer conjugate of buprenorphine that can be administered in the recovery room by a surgeon or anesthesiologist to provide immediate and prolonged analgesia over a period of 3-5 days. The prolonged nature of release of buprenorphine is designed to prevent the need to use potentially addictive opioids such as morphine in the immediate post-op period.

“We are grateful to the NINDS and the NIH HEAL Initiative for supporting research that will address the opioid crisis in America”, said Dr. Randall Moreadith, Serina’s Chief Executive Officer and Co-Investigator. The NIH launched the HEAL Initiative in an effort to speed scientific solutions to stem the national opioid public health crisis.

### **About Serina**

Serina Therapeutics is a privately held pharmaceutical company located at the Hudson-Alpha Institute for Biotechnology in Huntsville, AL that is developing novel polymer therapeutics based on its proprietary polyoxazoline (POZ™) technology. The founders and managers of Serina were formerly the principals of Shearwater Polymers which enabled fourteen approved polyethylene glycol (PEG) products for various pharmaceutical partners. POZ™ technology provides strong differential characteristics that may demonstrate improved safety, tolerability and clinical benefits versus PEG and other polymer-based technologies.

In addition to a growing pipeline of proprietary programs focused on pain, Parkinson’s disease and epilepsy Serina seeks partnership opportunities with pharmaceutical companies to further unlock the promise of the POZ™ platform.

For more information on Serina Therapeutics, please visit <http://www.serinatherapeutics.com>.

## **About the NIH HEAL Initiative and NINDS**

The National Institutes of Health launched the NIH HEAL Initiative in April 2018 to improve prevention and treatment strategies for opioid misuse and addiction and enhance pain management. The NIH HEAL Initiative aims to improve treatments for chronic pain, curb the rates of opioid use disorder and overdose and achieve long-term recovery from opioid addiction. The National Institute of Neurological Disorders and Stroke is a division of the National Institutes of Health that invests in and conducts research across the spectrum of neuroscience and neurology research, from basic studies on fundamental biological mechanisms, to clinical trials to test new treatments in patients.

“It’s clear that a multi-pronged scientific approach is needed to reduce the risks of opioids, accelerate development of effective non-opioid therapies for pain and provide more flexible and effective options for treating addiction to opioids,” said NIH Director Francis S. Collins, M.D., Ph.D., who launched the initiative in early 2018. “This unprecedented investment in the NIH HEAL Initiative demonstrates the commitment to reversing this devastating crisis.”

Serina Therapeutics’ award is one of 375 grant awards across 41 states made by the National Institutes of Health in fiscal year 2019 to apply scientific solutions to reverse the national opioid crisis.