

## **SignaBlok Wins \$1.34M NIH Phase II SBIR Grant to Advance New Nanotechnology for Diagnostic Imaging of Atherosclerosis**

**Shrewsbury, MA, July 29, 2014** – SignaBlok, Inc., a Massachusetts-based emerging biopharmaceutical company, announced today the award of a Phase II Small Business Innovation Research (SBIR) grant by the National Heart Lung and Blood Institute (NHLBI), a division of the National Institutes of Health (NIH). This project, entitled “Multifunctional nanoformulations for diagnostic imaging of atherosclerosis”, continues the work previously supported by a successfully completed Phase I SBIR grant on the use of SignaBlok’s targeted nanoparticles as a safe and efficient delivery platform for imaging of the most dangerous type of arterial plaques – called vulnerable plaques – in early diagnosis and treatment of atherosclerosis. This research is a collaborative effort between SignaBlok and the Advanced Magnetic Resonance Imaging (MRI) Center at the University of Massachusetts Medical School, Worcester.

SignaBlok’s proprietary nanosystem for delivery of drugs and imaging agents targets macrophages, inflammatory cells that are critically involved in plaque formation and have a high discriminatory power to identify the vulnerable plaque. The goal of this grant is to advance preclinical studies of new macrophage-targeted MRI imaging agents towards an investigational new drug (IND) application to the FDA.

Alexander Sigalov, Ph.D., President and Founder of SignaBlok said, “We have strong pre-clinical efficacy data that show an MRI contrast agent, when delivered to macrophages by SignaBlok’s nanoparticles, significantly improves atherosclerotic plaque detection in an animal model of the disease. This Phase II award will allow us to continue development of our lead candidates. New imaging technique would fill an important unmet need in the diagnosis and treatment of atherosclerosis and offer better way to identify high-risk individuals, provide earlier diagnosis before symptoms occur and monitor treatment effects.”

“Macrophages are important imaging targets for diagnosis and image-guided therapy of not only atherosclerosis but also cancer. Thus, this grant gives us an opportunity to develop targeted nanosystem for in vivo macrophage imaging with a wide range of clinical applications. We are extremely pleased to continue to receive funding from the NHLBI,” said Alexander Sigalov.

Reference: Sigalov AB. Nature-inspired nanoformulations for contrast-enhanced in vivo MR imaging of macrophages. *Contrast Media & Mol Imaging*, 2014, in press. <http://www.ncbi.nlm.nih.gov/pubmed/24729189>

**About atherosclerosis:** Atherosclerosis (hardening of the arteries) is the major cause of cardiovascular disease, the number one leading cause of death worldwide. A vast majority of cardiovascular events such as stroke or myocardial infarction result from rupture or erosion of vulnerable plaques. Accurate in vivo tracking of plaque vulnerability and progression using non-invasive imaging approaches allows early identification of high-risk patients as well as facilitates early intervention decision-making process and monitoring of the effectiveness of interventions.

### **About SignaBlok**

SignaBlok is developing a new class of therapies – SCHOOL peptides, the innovative modulatory peptides that can be rationally designed for nearly any cell surface receptor and have broad potential to treat and prevent a wide range of serious diseases with unmet clinical needs. SignaBlok is also developing a nanotechnology that enables targeted delivery of SCHOOL peptides and other therapies and/or imaging agents, aiming to improve efficacy, reduce dose, and allow image-guided therapy. Additional information about SignaBlok is available at [www.signablok.com](http://www.signablok.com).

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