FOR IMMEDIATE RELEASE

SignaBlok Awarded NIH Grant to Test New Therapy for Rheumatoid Arthritis

Shrewsbury, MA, September 25, 2014 – The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), a division of the National Institutes of Health (NIH), has awarded SignaBlok, Inc., a Massachusetts-based emerging biopharmaceutical company, a $223,013 Small Business Innovation Research (SBIR) Phase I grant to *in vivo* test a new targeted therapy of rheumatoid arthritis (RA).

SignaBlok's innovative approach to RA therapy targets a specific receptor called TREM-1 that is expressed on inflammatory cells, macrophages, and serves as an inflammation amplifier. This receptor is critically involved in RA, cancer, sepsis and other inflammation-associated conditions.

The grant "Novel mechanism-based targeted approach to rheumatoid arthritis" combines two SignaBlok's proprietary technologies: 1) ligand-independent inhibition of cell receptors using short synthetic peptides, known as the SCHOOL technology, and 2) nanotechnology for macrophage-targeted drug delivery.

The NIH funds will support development of macrophage-targeted nanoformulations that contain a TREM-1-specific SCHOOL peptide and their *in vivo* testing in an animal model of RA. The most promising formulations will be selected for Investigational New Drug (IND)-enabling studies and further clinical development. This could ultimately lead to first-in-class low-toxic therapies for RA, thereby improving RA treatment and decreasing long-term disability.

"This award from the NIAMS/NIH reinforces the promise of our SCHOOL technology and innovative drug delivery nanosystems," said Alexander Sigalov, Ph.D., President, Inventor and Founder of SignaBlok. "We have recently succeeded in the animal proof-of-concept (POC) testing of macrophage-targeted TREM-1-specific peptide nanoformulations in cancer and sepsis. With the NIAMS funding, we hope to establish animal POC for RA. This will set the stage for the development of new mechanism-based drugs with a broad spectrum of therapeutic indications."

References: 1) Sigalov AB. A novel ligand-independent peptide inhibitor of TREM-1 suppresses tumor growth in human lung cancer xenografts and prolongs survival of mice with lipopolysaccharide-induced septic shock. Int Immunopharmacol. 2014, 21:208-19; 2) Sigalov AB. Nature-inspired nanoformulations for contrast-enhanced in vivo MR imaging of macrophages. Contrast Med Mol Imaging, 2014, *in press*.

About rheumatoid arthritis: RA is a chronic, systemic inflammatory disorder that causes chronic inflammation of the joints. RA affects about 1.5 million Americans and due to its severely debilitating nature costs society more than $40 billion each year. Despite advances in therapy, RA has no cure. This highlights the need for new treatments.

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.

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