



Sangamo BioSciences Announces ZFP Therapeutic Data From Nerve Regeneration Program at Society for Neuroscience Meeting

Statistically Significant Improvements in Function and Tissue Preservation with ZFP TF Treatment in Spinal Cord Injury Model

SAN DIEGO, Nov 07, 2007 /PRNewswire-FirstCall via COMTEX News Network/ -- Sangamo BioSciences, Inc. (Nasdaq: SGMO) announced today the presentation of preclinical data from its ZFP Therapeutic(TM) program in nerve regeneration at Neuroscience 2007, the 37th Annual Meeting of the Society for Neuroscience. A statistically significant effect on both recovery of hind-limb function and spinal cord tissue preservation was demonstrated in a severe model of spinal cord injury (SCI) following treatment at the time of injury with a zinc finger DNA-binding protein activator of vascular endothelial growth factor (VEGF ZFP TF).

"We are excited by the statistically significant improvements in measures of both nerve health and, more importantly, nerve function after treatment with our VEGF ZFP TF," said Dale Ando, M.D. Sangamo's vice president of therapeutic development and chief medical officer. "Data generated in these studies are consistent with other data from a variety of models that suggest that our ZFP TF activator of VEGF expression has regenerative effects on nerves and increases the density of blood vessels in and around the treated tissue.

We believe that these effects will prove therapeutically important in conditions that involve nerve damage including diabetic neuropathy, ALS, stroke and traumatic injuries to the brain, spinal cord and other nerves. We are very pleased to collaborate with Dr. Michael Fehlings, senior author of this study, who is world-renown for his work on SCI and has significant clinical trial experience in this area."

Sangamo is currently developing SB-509, a plasmid formulation of this same ZFP TF, for the treatment of diabetic neuropathy and has two ongoing Phase 2 trials in this area. In addition, the Company plans to initiate two new Phase 2 clinical trials to evaluate this ZFP Therapeutic in stem cell mobilization and amyotrophic lateral sclerosis (ALS) or Lou Gehrig's disease. ZFP activation of VEGF-A has been demonstrated to stimulate angiogenesis or blood vessel growth, to have direct neurotrophic and neuroprotective properties in several models that assess nerve integrity and health, and may play an important role in stem cell mobilization and thereby tissue repair.

Data Reported in the Neuroscience 2007 Presentation

Dr. Fehlings and his colleagues observed that administration of the ZFP TF into the spinal cord at the time of injury produced measurable VEGF ZFP TF protein and increased levels of all major isoforms of the VEGF protein. They observed a corresponding neuroprotective effect with a statistically significant decrease in nerve fiber degradation and post-injury nerve cell death as well as a statistically significant improvement in spinal cord tissue preservation at the site of injury ($P < 0.005$). They also noted an increase in blood vessel density around the injury. Importantly, in this severe model of SCI where animals are paraplegic post-injury, they observed a statistically significant ($P < 0.0001$) improvement of hind-limb function over time.

"In our studies, Sangamo's VEGF ZFP TF has shown remarkable positive improvements in all measured parameters of this model," stated Dr. Fehlings, M.D. Ph.D., senior author of the study. "The data obtained in our preclinical model appear highly encouraging and we look forward to continuing to work with Sangamo to move this program forward into clinical studies. We believe that this VEGF-activating ZFP TF holds considerable promise as a unique therapy for spinal cord injury and other forms of neural injury."

Dr. Fehlings holds the Krembil Chair in Neural Repair and Regeneration at the Krembil Neuroscience Center, Toronto Western Hospital and the Division of Neurosurgery, Faculty of Medicine, University of Toronto, Ontario, Canada. He is a Christopher Reeve Foundation Scientific Advisory Council member and a leading expert in the molecular mechanisms and treatment of SCI.

Dr. Fehlings also gave a presentation entitled "New Directions in the Pathophysiology and Treatment of Acute Spinal Cord Injury: Opportunity for Translation of Basic Research Discoveries" that included data from his collaboration with Sangamo. Dr. Fehlings was an invited speaker at the "Spinal Cord Injury: Time to Move?" Symposium held on Monday, November 5, 2007.

About Spinal Cord Injury

Spinal Cord Injury (SCI) is damage to the spinal cord that results in a loss of function such as mobility or feeling. The National Spinal Cord Injury Statistical Center (NSCISC) estimates that there are approximately 11,000 new cases each year primarily in young adults. The spinal cord is the major bundle of nerves that carries nerve impulses to and from the brain to the rest of the body. The spinal cord does not have to be severed in order for a loss of function to occur. In fact, in most people with SCI, the spinal cord is intact, but the damage to it results in loss of function.

Sigma-Aldrich Sponsored Symposium

Philip D. Gregory, D. Phil., Vice President, Research at Sangamo was invited to present "Precision Genome Editing in Stem Cells Using Engineered Zinc Finger Proteins," at a Neuroscience 2007 satellite symposium, "Innovations in Stem Cell Therapy and Cell Biology Research", sponsored by Sigma-Aldrich. Gregory noted Sangamo's recent advances in modifying the human genome in stem cells. The work makes possible efficient generation of stem cell lines for use as models of human disease for medical research and for drug testing.

About Sangamo

Sangamo BioSciences, Inc. is focused on the research and development of novel DNA-binding proteins for therapeutic gene regulation and modification. The most advanced ZFP Therapeutic(TM) development program is currently in Phase 2 clinical trials for evaluation of safety and clinical effect in patients with diabetic neuropathy. Phase 1 clinical trials are ongoing to evaluate a ZFP Therapeutic for peripheral artery disease. Other therapeutic development programs are focused on cancer and HIV/AIDS, neuropathic pain, nerve regeneration, ischemic heart disease and monogenic diseases. Sangamo's core competencies enable the engineering of a class of DNA-binding proteins known as zinc finger DNA-binding proteins (ZFPs). By engineering ZFPs that recognize a specific DNA sequence Sangamo has created ZFP transcription factors (ZFP TF(TM)) that can control gene expression and, consequently, cell function. Sangamo is also developing sequence-specific ZFP Nucleases (ZFN(TM)) for therapeutic gene modification as a treatment for a variety of monogenic diseases, such as X-linked SCID and hemophilia, and for infectious diseases, such as HIV. Sangamo has established several Enabling Technology Agreements with companies to apply its ZFP Technology to enhance the production of protein pharmaceuticals. For more information about Sangamo, visit the company's web site at <http://www.sangamo.com>.

This press release may contain forward-looking statements based on Sangamo's current expectations. These forward-looking statements include, without limitation, references to the research and development of novel ZFP TFs and ZFNs as ZFP Therapeutics, applications of Sangamo's ZFP TF technology platform and clinical trials of ZFP Therapeutics. Actual results may differ materially from these forward-looking statements due to a number of factors, including technological challenges, uncertainties relating to the initiation and completion of stages of ZFP Therapeutic clinical trials, Sangamo's ability to develop commercially viable products and technological developments by our competitors. See the company's SEC filings, and in particular, the risk factors described in the company's Annual Report on Form 10-K and its most recent Quarterly Reports on Form 10-Q. Sangamo BioSciences, Inc. assumes no obligation to update the forward-looking information contained in this press release.

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