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Sangamo BioSciences And Collaborators Highlight Widening Applications Of ZFP Therapeutics® In Presentations At Major Gene Therapy Meeting

Increasing Use of ZFN-Mediated Gene Editing by Gene Therapy Field

RICHMOND, Calif., May 21, 2012 /PRNewswire/ -- Sangamo BioSciences, Inc. (Nasdaq: SGMO) announced today that data from clinical, preclinical and research-stage programs focused on the development of ZFP Therapeutics® for HIV/AIDS, monogenic diseases and stem cell applications, were described in twelve presentations given by Sangamo scientists and collaborators at the 15th Annual Meeting of the American Society of Gene and Cell Therapy (ASGCT). The meeting was held in Philadelphia from May 15-19, 2012.

"Sangamo's zinc finger DNA-binding protein (ZFP) technology is enabling development of new and improved gene and cell therapy approaches," said Geoff Nichol, M.B., Ch.B., Sangamo's executive vice president, research and development. "Our ZFP Nuclease (ZFN) technology provides an extremely efficient and precise process for editing any DNA sequence. This enables us to disrupt specific genes or to precisely add DNA sequences that allow a patient's own gene to be corrected and its proper function restored while preserving the natural regulation of the gene.

Sangamo has also developed technology that allows a therapeutic gene to be inserted into a specific 'safe harbor' site. Our ability to target changes to precise locations rather than randomly into the genome, avoids the challenges of traditional gene-addition approaches that can result in unintended mutations. The increased number of related presentations at this meeting demonstrates the growing adoption of ZFN-based gene editing by the field."

Presentations from Sangamo included preliminary clinical data from ongoing Phase 1 clinical trials in HIV/AIDS as well as data from preclinical and research-stage human therapeutic programs. Therapeutic areas included ZFP-based approaches for monogenic diseases such as hemophilia, hemoglobinopathies and Huntington's disease as well as adoptive T-cell therapies for oncology.

"Visibility of ZFPs in the scientific agenda at the ASGCT meeting illustrates the broad range of potential applications for ZFP Therapeutics," said Edward Lanphier, Sangamo's president and CEO. "Our technology can be used to modify any gene with singular specificity and high efficiency. As our technology functions at the DNA level, it can potentially be applied to any disease-related gene making it a versatile platform for the generation of novel therapeutic approaches for the treatment of unmet medical needs."

ZFP Therapeutics Featured at ASGCT Meeting

- Philip Gregory, D. Phil., Sangamo's vice president, research, and chief scientific officer, was an invited speaker at the Scientific Symposium *Progress and Prospects of Industry-sponsored Clinical Studies*. His presentation summarized clinical data from Phase 1 trials sponsored by Sangamo and collaborators at the University of Pennsylvania.
- Additional presentations covered ZFN-mediated gene editing approaches for monogenic diseases, including hemophilia (Abst# 57), hemoglobinopathies (Abst# 309), as well as a ZFP transcription factor (ZFP TF) approach to Huntington's disease (Abst# 169). In addition, data were presented from programs in stem cell applications (Abst# 67, 303, 516, 551) for oncology (Abst# 531) and immune disorders (Abst# 44).
- Several academic groups investigating ZFP therapeutic approaches to monogenic diseases, including the immune disorder X-chronic granulomatous disease (X-CGD) (Abst# 280) and the hemoglobinopathy, alpha-thalassemia, (Abst# 568) described the application of Sangamo's ZFN technology to insert therapeutic genes into "safe harbor" sites. This research application of Sangamo's technology is marketed by Sigma-Aldrich Corporation, Sangamo's exclusive licensee, as a kit (CompoZr® Targeted Integration Kit).

All abstracts for the meeting are available online at [2012 ASGCT Meeting Abstracts](#).

About Sangamo

Sangamo BioSciences, Inc. is focused on research and development of novel DNA-binding proteins for therapeutic gene regulation and genome editing. It has ongoing Phase 2 and Phase 1/2 clinical trials to evaluate the safety and efficacy of a novel ZFP Therapeutic® for the treatment of HIV/AIDS. Sangamo's other therapeutic programs are focused on monogenic diseases, including hemophilia and hemoglobinopathies such as sickle cell anemia and beta-thalassemia, and a program in

Parkinson's disease. Sangamo's core competencies enable the engineering of a class of DNA-binding proteins known as zinc finger DNA-binding proteins (ZFPs). Engineering of ZFPs that recognize a specific DNA sequence enables the creation of sequence-specific ZFP Nucleases (ZFNs) for gene modification and ZFP transcription factors (ZFP TFs) that can control gene expression and, consequently, cell function. Sangamo has entered into a strategic collaboration with Shire to develop therapeutics for hemophilia and other monogenic diseases and has established strategic partnerships with companies in non-therapeutic applications of its technology including Dow AgroSciences and Sigma-Aldrich Corporation. For more information about Sangamo, visit the company's website at www.sangamo.com.

ZFP Therapeutic® is a registered trademark of Sangamo BioSciences, Inc. CompoZr® is a registered trademark of Sigma-Aldrich Corporation.

This press release may contain forward-looking statements based on Sangamo's current expectations. These forward-looking statements include, without limitation, the research and development of novel ZFP TFs and ZFNs as ZFP Therapeutics and therapeutic applications and the scope of such applications of Sangamo's ZFP technology platform to specific human diseases and unmet medical needs, including HIV/AIDS, monogenic diseases, neuroregeneration and stem cell applications. Actual results may differ materially from these forward-looking statements due to a number of factors, including uncertainties relating to whether clinical trials will validate and support tolerability and efficacy of ZFP Therapeutic approaches, technological challenges, Sangamo's ability to develop commercially viable products and technological developments by our competitors. See Sangamo's SEC filings, and in particular, the risk factors described in the Company's Annual Report on Form 10-K and most recent Quarterly Report on Form 10-Q. Sangamo assumes no obligation to update the forward-looking information contained in this press release.

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