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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 8-K
CURRENT REPORT PURSUANT

TO SECTION 13 OR 15(D) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): April 4, 2005

SANGAMO BIOSCIENCES, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

000-30171

68-0359556

(Commission File Number)

(IRS Employer Identification No.)

501 Canal Blvd, Suite A100

Richmond, California 94804

(Address of Principal Executive Offices)

(Zip Code)

(510) 970-6000

(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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ITEM 8.01 OTHER EVENTS

On April 4, 2005, Sangamo BioSciences Inc. issued a press release announcing that data from their gene correction program was published in the online edition of the scientific journal Nature.

A copy of the press release issued by Sangamo BioSciences, Inc. relating to this event is filed as an exhibit to this Current Report on Form 8-K.

ITEM 9.01 FINANCIAL STATEMENTS AND EXHIBITS

(c) Exhibits. The following material is filed as an exhibit to this Current Report on Form 8-K:

Exhibit No.

99.1 Press Release Issued April 4, 2005.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

DATE: April 4, 2005

SANGAMO BIOSCIENCES, INC.

By: /s/ EDWARD O. LANPHIER II

Edward O. Lanphier II
President, Chief Executive Officer

SANGAMO BIOSCIENCES ANNOUNCES PUBLICATION IN NATURE DEMONSTRATING THE USE
OF ITS ZINC FINGER TECHNOLOGY TO CORRECT HUMAN GENES

PAPER DESCRIBES APPROACH FOR 'GENOME EDITING' THAT MAY LEAD TO POTENTIAL
TREATMENT FOR MONOGENIC DISEASES AND HIV/AIDS

RICHMOND, Calif., April 4 /PRNewswire-FirstCall/ -- Sangamo BioSciences, Inc. (Nasdaq: SGMO) today announced publication of data that demonstrates the use of the Company's zinc finger DNA-binding protein (ZFP) technology to achieve highly efficient, permanent correction of a disease-causing gene in primary human cells. This research, published in Nature as an advance online publication, represents a significant advance in the ability to specifically and efficiently modify the human genome and provides the scientific foundation for potential therapeutic approaches for a variety of genetic disorders and infectious diseases.

In this study, Sangamo scientists demonstrated the use of engineered zinc finger nucleases (ZFN(TM)) to correct errors in the DNA sequence of a disease-causing gene, the IL2Rgamma gene. Correction was achieved in a high percentage of treated cells without the need for selection. Importantly, gene correction was permanent and eliminated the need for integration of any foreign DNA sequence, a cause of problems in certain gene therapy studies.

"Using our ZFN technology we have advanced the field of targeted homologous recombination to levels of efficiency and specificity that could make potential therapeutic applications feasible," stated Michael C. Holmes, Ph.D., Director, Therapeutic Gene Modification at Sangamo and the study's senior author. "Our ZFN technology allows us to facilitate modification of a DNA sequence at a very specific point in the genome, in this case, at the site of a mutation in a gene. The cell's own machinery corrects the mutation using a DNA sequence that we provide. All of this happens without the need for integration of foreign DNA into the genome of cells. Once the gene is repaired, these cells undergo normal division and replication, resulting in daughter cells that carry the modified gene and thus are permanently corrected."

"For years, scientists have been searching for a way to modify or edit the genome of plants and animals in a precise and predictable fashion," said Nobel Laureate, Professor Sir Aaron Klug, of the MRC Laboratory of Molecular Biology, Cambridge, UK. "This work is therefore truly a landmark study that provides the foundation for gene modification-based therapeutics without the safety issues that have plagued many traditional gene therapy applications. It gives me great personal satisfaction to see this remarkable outcome of my original discovery of zinc fingers and their development."

Study Results

Mutations in the gene encoding the IL2Rgamma protein invariably cause X-linked SCID (X-linked Severe Combined Immunodeficiency Disease) or so-called Bubble-boy disease. Patients with such mutations do not produce a functional IL2Rgamma protein; never develop a functional immune system and die of severe

infections within 12-18 months of birth.

In this study, highly specific engineered ZFNs designed to bind to sequences close to an X-linked SCID-causing mutation in the IL2Rgamma gene resulted in a high percentage of the cells undergoing gene correction. In addition, it was observed that approximately one third of the corrected cells acquired the desired modification on both chromosomes. The expected downstream changes in both RNA and protein levels were also observed. Comparably high levels of correction were observed in primary human T-cells. While further work will be required to optimize the system for therapeutic use, the gene correction efficiencies established here may be sufficient to achieve a therapeutic effect.

"I would like to congratulate all of the Sangamo scientists involved in the generation of these data," stated Edward Lanphier, Sangamo's president and CEO. "It is gratifying that their work has been recognized by the prestigious journal Nature. These results highlight the potential for gene correction therapy for human monogenic disorders i.e. those diseases caused by mutation of a single gene. We are now working with our clinical collaborators to move this technology into the clinic. Our initial research will focus on monogenic diseases of blood cells such as Sickle Cell Anemia and beta-Thalassemia. In addition, the technology also forms the basis of our program to develop a potential therapeutic for HIV infection by disrupting expression of the CCR5 gene to generate a population of HIV-resistant cells."

About Zinc Finger DNA Binding Proteins

Zinc Finger DNA-binding Proteins (ZFPs) are a naturally occurring class of

DNA binding proteins. The DNA recognition and binding function of ZFPs can be engineered and thus directed to a targeted sequence of DNA. This permits the delivery of a variety of functional domains to a gene-specific location. ZFPs are being developed for two significant therapeutic applications: gene regulation and gene modification. In the case of therapeutic gene regulation, ZFPs are being engineered to either turn on therapeutically beneficial genes or turn off the expression of disease-causing genes. For gene modification, ZFPs are being used in combination with a DNA cutting enzyme (endonuclease) functional domain to generate ZFNs that facilitate the correction of mutant gene sequences that cause disease or the disruption of genes that facilitate disease progression.

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 programs are currently in Phase I clinical trials for evaluation of safety in patients with peripheral artery disease and diabetic neuropathy. Other therapeutic development programs are focused on ischemic heart disease, congestive heart failure, cancer, neuropathic pain, and infectious 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 (ZFNs) for therapeutic gene modification as a treatment and possible cure for a variety of monogenic diseases such as sickle cell anemia and for infectious diseases such as HIV. For more information about Sangamo, visit the company's web site at www.sangamo.com or www.expressinglife.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, clinical trials and therapeutic applications of Sangamo's ZFP technology platform. Actual results may differ materially from these forward-looking statements due to a number of factors, including technological challenges, 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 10-Q. Sangamo assumes no obligation to update the forward-looking information contained in this press release.

SOURCE Sangamo BioSciences, Inc.

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