### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## Post-Effective Amendment No. 1 to FORM S-8 REGISTRATION STATEMENT

Under
The Securities Act of 1933

# SANGAMO BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

| Delaware                          |  |
|-----------------------------------|--|
| (State or other jurisdiction      |  |
| of incorporation or organization) |  |

68-0359556 (IRS Employer Identification No.)

501 Canal Boulevard, Suite A100 Richmond, California 94804 (Address of principal executive offices) (Zip Code)

Sangamo BioSciences, Inc. 2013 Stock Incentive Plan
(Full title of the Plans)

Edward O. Lanphier II
President and Chief Executive Officer
Sangamo BioSciences, Inc.
501 Canal Boulevard, Suite A100
Richmond, California 94804
(Name and address of agent for service)

|  | 501 Canai Boulevaru, Suite                      | A100                      |             |  |  |
|--|---|---------------------------|-------------|--|--|
|  | Richmond, California 94                         | 804                       |             |  |  |
|  | (Name and address of agent for se               | rvice)                    |             |  |  |
| (510) 970-6000   |   |                           |             |  |  |
|  | (Telephone number, including area code, of a    | gent for service)         |             |  |  |
|  |   |                           |             |  |  |
| Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one): |   |                           |             |  |  |
| arge accelerated filer   |   | Accelerated filer         | $\boxtimes$ |  |  |
| Non-accelerated filer  | ☐ (Do not check if a smaller reporting company) | Smaller reporting company |             |  |  |

#### **EXPLANATORY NOTE**

Pursuant to Item 512(a)(3) of Regulation S-K, this Post-Effective Amendment No. 1 to the registration statement on Form S-8 (File No. 333-166220) filed by Sangamo Biosciences, Inc. (the "Company") on April 22, 2010 is filed in order to deregister securities remaining under such registration statement.

On April 22, 2010, the Company filed a registration statement on Form S-8 (File No. 333-166220) to register an aggregate of 1,349,832 shares of common stock issuable under the Sangamo Biosciences, Inc. 2004 Stock Incentive Plan (the "2004 Plan"). On June 12, 2013 (the "Approval Date"), the Company's shareholders approved the adoption of the Sangamo Biosciences, Inc. 2013 Stock Incentive Plan (the "Plan") that replaced and superseded the 2004 Plan.

The Plan provides, among other things, that any shares of common stock with respect to awards granted under the 2004 Plan that are outstanding on the Approval Date (such shares, the "Outstanding Award Shares") will be issued under the Plan. The Plan also provides that Outstanding Award Shares that terminate, expire, or are canceled, forfeited, exchanged or surrendered without having been exercised on or after the Approval Date will become available for issuance under the Plan. Furthermore, as of the Approval Date, no future awards will be made under the 2004 Plan and, therefore, the shares of common stock that were available for grant under the 2004 Plan as of the Approval Date but were not subject to outstanding awards as of such date (such shares, the "Remaining Shares") will not be issued pursuant to the 2004 Plan but will instead be available for awards under the Plan. Outstanding Award Shares and the Remaining Shares are collectively referred to as the "Carried Forward Shares".

This Post-Effective Amendment No. 1 is being filed to deregister the Carried Forward Shares. The Company is concurrently filing a separate registration statement on Form S-8 to reflect that the Carried Forward Shares are transferred to and may be issued under the Plan and to carry over the filing fees paid for the Carried Forward Shares.

In accordance with the principles set forth in Interpretation 89 under Section G of the Manual of Publicly Available Telephone Interpretations of the Division of Corporation Finance of the Securities and Exchange Commission (July 1997) and Instruction E to the General Instructions to Form S-8, this Post-Effective Amendment No. 1 is hereby filed (i) to reflect that, following the date hereof, the Carried Forward Shares are transferred to the Plan and may be issued under the Plan, and (ii) to carry over the registration fees paid for all the Carried Forward Shares from the registration statement on Form S-8 (File No. 333-166220), filed for the 2004 Plan, to the registration statement on Form S-8 filed for the Plan, which is being filed contemporaneously with the filing of this Post-Effective Amendment No. 1.

#### **SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing this Post-Effective Amendment No. 1 on Form S-8, and has duly caused this Post-Effective Amendment No. 1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Richmond, State of California on this 26th day of June, 2013.

#### SANGAMO BIOSCIENCES, INC.

By: /s/ Edward O. Lanphier II

Edward O. Lanphier II President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment No. 1 has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

| <u>Signature</u>                    | <u>Title</u>  | <u>Date</u>   |
|-------------------------------------|---|---------------|
| * Edward O. Lanphier II             | President, Chief Executive Officer and Director (Principal Executive Officer)                     | June 26, 2013 |
| /s/ H. Ward Wolff H. Ward Wolff     | Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer) | June 26, 2013 |
| * Paul B. Cleveland                 | Director  | June 26, 2013 |
| * Stephen G. Dilly, M.B.B.S., Ph.D. | Director  | June 26, 2013 |

| Signature  | <u>Title</u>          | <u>Date</u>   |
|--|-----------------------|---------------|
| John W. Larson                                   | Director              | June 26, 2013 |
| * Steven J. Mento, Ph.D.                         | Director              | June 26, 2013 |
| * William R. Ringo                               | Chairman of the Board | June 26, 2013 |
| /s/ Saira Ramasastry Saira Ramasastry            | Director              | June 26, 2013 |
| *By:   |                       |               |
| /s/ H. Ward Wolff H. Ward Wolff Attorney-in-Fact |                       |               |