Mr. Edward O. Lanphier II President and Chief Executive Officer Sangamo Biosciences, Inc. 501 Canal Blvd, Suite A100 Richmond, California 94804

Re: Sangamo Biosciences, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2008

Filed on March 3, 2009

Supplemental Response Filed November 18, 2009

File No. 000-30171

Dear Mr. Lanphier:

We have reviewed your filing and have the following comments. Where the comments request you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comment or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Corporate Relationships

Enabling Technology Programs and Partners, page 15

1. We refer to your response to comment 3 of our letter dated November 4, 2009 and reissue the comment. Notwithstanding the grant of confidential treatment for the referenced agreements, please be advised that under the confidential treatment rule the staff has the authority to reconsider our actions in the future. Moreover, we note that each of the referenced applications for confidential treatment was given "no review" status and therefore not subject to staff review. Accordingly, the staff is not precluded from requiring that certain information in the subject exhibits be disclosed in future filings.

Mr. Edward O. Lanphier II Sangamo Biosciences, Inc. December 22, 2009 Page 2 of 3

Therefore, please expand your disclosure of the Genentech, OMT and La Roche agreements on pages 16-17 to provide all of the material terms of these agreements, including the amount of any upfront and access fees; a range of royalty rates; aggregate milestones; any other material payments specified; usage restrictions; exclusivity provisions; obligations/rights to defend; other rights obtained and material obligations that must be met to keep the agreement in place; duration and termination provisions.

Intellectual Property and Technology Licenses, page 18

2. We refer to your response to comment 4 of our prior letter and reissue the comment. Full disclosure of the significant terms of your material contracts, including the economic terms, provides investors with a more complete understanding of the Company's potential, as well as actual, obligations thereunder. Therefore, please expand the disclosure of your agreements with Johnson & Johnson, the Massachusetts Institute of Technology, the Johns Hopkins University and the Scripps Research Institute to describe the material terms of each, including, but not limited to any payment provisions, a range of royalty rates, aggregate milestones, usage restrictions, exclusivity provisions, obligations/rights to defend, other rights obtained and material obligations that must be met to keep the agreement in place, duration and termination provisions.

* * *

Please respond to these comments within 10 business days or tell us when you will provide us with responses. Please furnish a letter that keys your response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comment on your filing.

Mr. Edward O. Lanphier II Sangamo Biosciences, Inc. December 22, 2009 Page 3 of 3

Please contact Michael Rosenthall at (202) 551-3674 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey P. Riedler Assistant Director

cc: Scott D. Karchmer Morgan, Lewis & Bockius LLP One Market, Spear Street Tower San Francisco, CA 94105-1596

Fax: 415-442-1001