

---

---

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT NO. 333-219609  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT NO. 333-223689  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 REGISTRATION STATEMENT NO. 333-230257

**FORM S-8  
REGISTRATION STATEMENT**

*UNDER  
THE SECURITIES ACT OF 1933*

**Sienna Biopharmaceuticals, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction  
of incorporation)

001-38155  
(Commission  
File Number)

27-3364627  
(IRS Employer  
Identification Number)

30699 Russell Ranch Road, Suite 140  
Westlake Village, CA 91362  
(818) 629-2256

(Address, including zip code and telephone number, including area code, of registrant's principal executive office)

2010 Equity Incentive Plan, as amended  
2017 Incentive Award Plan  
2017 Employee Stock Purchase Plan  
(Full title of the Plans)

Frederick C. Beddingfield III, M.D., Ph.D.  
President and Chief Executive Officer  
Sienna Biopharmaceuticals, Inc.  
30699 Russell Ranch Road, Suite 140  
Westlake Village, CA 91362  
(818) 629-2256

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies to:*

Alan C. Mendelson, Esq.  
Brian J. Cuneo, Esq.  
Latham & Watkins LLP  
140 Scott Drive  
Menlo Park, CA 94025  
Telephone: (650) 328-4600  
Facsimile: (650) 463-2600

Timothy K. Andrews, Esq.  
General Counsel and Secretary  
Sienna Biopharmaceuticals, Inc.  
30699 Russell Ranch Road, Suite 140  
Westlake Village, California 91362  
Telephone: (818) 629-2256  
Facsimile: (818) 706-1214

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, anon-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

---

---

---

## DEREGISTRATION OF UNSOLD SECURITIES

These Post-Effective Amendments (these “Post-Effective Amendments”) filed by Sienna Biopharmaceuticals, Inc., a Delaware corporation (the “Registrant”), relate to the following Registration Statements on Form S-8 (each, a “Registration Statement,” and collectively, the “Registration Statements”) filed by the Registrant with the U.S. Securities and Exchange Commission (the “Commission”).

- Registration Statement on Form S-8 (No. 333-219609) pertaining to the registration of an aggregate of 2,692,268 shares of the Registrant’s common stock, \$0.001 par value per share (“Shares”) issuable under the Registrant’s 2010 Equity Incentive Plan, as amended, 2017 Incentive Award Plan and 2017 Employee Stock Purchase Plan, which was filed with the Commission on August 1, 2017.
- Registration Statement on Form S-8 (No. 333-223689) pertaining to the registration of an aggregate of 1,037,007 Shares issuable under the Registrant’s 2017 Incentive Award Plan and 2017 Employee Stock Purchase Plan, which was filed with the Commission on March 15, 2018.
- Registration Statement on Form S-8 (No. 333-230257) pertaining to the registration of an aggregate of 1,058,855 Shares issuable under the Registrant’s 2017 Incentive Award Plan and 2017 Employee Stock Purchase Plan, which was filed with the Commission on March 14, 2019.

The Registrant has informed the Nasdaq Hearings Panel (the “Panel”) regarding the results of the auction process of the Registrant’s assets, pursuant to the Panel’s decision letter dated November 12, 2019. The Registrant has requested to withdraw from the hearing process and that its common stock be suspended effective December 13, 2019 (the “Delisting”).

In connection with the Delisting, the Registrant has terminated any and all offerings pursuant to the Registration Statements. In accordance with undertakings made by the Registrant in the Registration Statements to remove from registration, by means of a post-effective amendment, any of the securities that remain unsold at the termination of the offerings, the Registrant hereby removes from registration all Shares registered but unsold under the Registration Statements as of the date hereof.

---

**SIGNATURE**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused these Post-Effective Amendments to be signed on its behalf by the undersigned, thereunto duly authorized, in Westlake Village, State of California, on December 11, 2019.

Sienna Biopharmaceuticals, Inc.

By: /s/ Timothy K. Andrews

Name: Timothy K. Andrews

Title: General Counsel and Secretary