

Prospectus Supplement No. 1
(To Prospectus dated September 23, 2008)



ACADIA
Pharmaceuticals
Common Stock

This Prospectus Supplement No. 1 supplements and amends the prospectus dated September 23, 2008 relating to the resale by Kingsbridge Capital Limited, or Kingsbridge, of up to 7,422,364 shares of our common stock.

This prospectus supplement should be read in conjunction with the prospectus dated September 23, 2008, which is to be delivered with this prospectus supplement. This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any amendments or supplements to it. All references in the prospectus to “this prospectus” are hereby amended to read “this prospectus (as supplemented and amended).”

We are filing this prospectus to reflect a draw down by us pursuant to the common stock purchase agreement by and between us and Kingsbridge, dated August 4, 2008.

The table appearing under the caption “Selling Stockholder” on page 5 of the prospectus is hereby supplemented by adding the following to the end of footnote (2) to that table:

“Since August 4, 2008, we have made the following draw downs pursuant to the common stock purchase agreement:

On October 15, 2009, we delivered notice to Kingsbridge to effect an anticipated eight-day draw down. The first trading day of the pricing period for this draw down was October 16, 2009, and, in connection with this draw down, on October 22, 2009, we issued an aggregate of 785,271 shares of our common stock to Kingsbridge at an aggregate purchase price of \$1,175,000. No additional shares were issued pursuant to the draw down.”

Our common stock is quoted on the NASDAQ Global Market under the symbol “ACAD.” The prices at which Kingsbridge purchased these shares from us were established under the common stock purchase agreement and represented a discount of 12% per share from the prices of our common stock on the NASDAQ Global Market for the period from October 16, 2009 to October 21, 2009. On October 27, 2009, the last reported sale price of our common stock on the NASDAQ Global Market was \$1.48 per share.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE “RISK FACTORS” ON PAGE 4 OF THE PROSPECTUS AND UNDER “MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS” IN OUR MOST RECENT FORM 10-K OR FORM 10-Q THAT HAS BEEN FILED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED, AND THAT IS INCORPORATED BY REFERENCE INTO THE PROSPECTUS.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the prospectus to which it relates is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is October 28, 2009.