

Mail Stop 4720

December 15, 2009

Uli Hacksell, Ph.D.
Chief Executive Officer
ACADIA Pharmaceuticals Inc.
3911 Sorrento Valley Boulevard
San Diego, CA 92121

**Re: ACADIA Pharmaceuticals Inc.
Form 10-K for the year ended 12/31/2008
Filed March 10, 2009
File No. 000-50768**

Dear Dr. Hacksell:

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.

Form 10-K

Collaboration Agreements, page 11

1. Please advise us whether your July 2002 agreement with Aventis remains in effect and whether you have received payments from Aventis (now Sanofi-Aventis) within the last year or may be entitled to receive payments in the future under this agreement. Please file this agreement as an exhibit or provide your analysis why such filing is not required by Item 601(b)(10) of Regulation S-K.

Intellectual Property, page 12

2. To the extent not in conflict with the grant of confidential treatment for portions of the agreement, please describe all of the material terms of your November 30, 2006 agreement with the Ipsen Group.
3. Please expand your disclosure here to include the expiration dates for your material patents, or a range of expiration dates for each group of patents you associate with each of your material product candidates.

Schedule 14A

Compensation Discussion and Analysis

2008 Annual Incentive Bonuses, page 20

4. Notwithstanding the Compensation Committee's decision to pay no annual incentive bonuses for 2008, please be advised that if performance goals were established for your named executive officers you are required to disclose in your Compensation Discussion and Analysis the specific goals and the degree of attainment of those goals. Therefore, if goals have been established by the Compensation Committee for 2009, you should be prepared to discuss these in your next proxy statement. As such please provide draft disclosure for your 2010 proxy statement discussion of the detailed set of individual and corporate performance goals for each named executive officer. In addition, please confirm that in your next proxy statement you will disclose the extent to which each officer's performance met, exceeded or fell short of the goal(s) and how his or her level of performance related to the bonus ultimately awarded. To the extent that pre-established goals and the executive's level of performance are quantifiable, the discussion in your proxy statement should also be quantified.

* * *

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.

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

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: D. Bradley Peck
J. Patrick Loofbourrow
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