



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 18, 2012

Via E-mail

Dr. Benjamin Warner
Chief Executive Officer
Caldera Pharmaceuticals, Inc.
278 DP Road, Suite D
Los Alamos, NM 87544

**Re: Caldera Pharmaceuticals, Inc.
Amendment No. 2 to Registration Statement on Form S-1/A
Filed June 8, 2012
File No. 333-179508**

Dear Dr. Warner:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Amendment No. 2 to Registration Statement on Form S-1/A

Risk Factors

"We are an 'emerging growth company,' and any decision on our part to comply . . .," page 9

1. We note your response to Comment 2 and your statement that you qualify as an "emerging growth company" as defined in the Jumpstart Our Businesses Act. In this risk factor, you indicate that you could cease to be an "emerging growth company" if the market value of your common stock that is held by non-affiliates exceeds \$700 million as of June 30 of any year before the end of the prescribed 5-year period. Please revise and expand this risk factor to disclose that you could remain an emerging growth company until the earliest of:
 - The last day of the fiscal year in which you have total annual gross revenues of \$1 billion or more;

- The last day of your fiscal year following the fifth anniversary of the date of the first sale of common equity securities pursuant to an effective registration statement;
- The date on which you have issued more than \$1 billion in nonconvertible debt during the previous three years; or
- The date on which you are deemed to be a large accelerated filer.

Dilution, page 18

2. Please refer to your response to comment 11. It appears as though the net tangible book deficit should be (\$2,376,018) or (\$0.55) per share which is stockholders' equity less intangible assets. Please revise your disclosure to clarify that the dilution to be experienced by investors of \$5.55 in your offering will be greater than the anticipated offering price.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Results of Operations for the quarter ended March 31, 2012 and the quarter ended March 31, 2011

Selling, general and administrative expenses, page 20

3. We note that the drivers you discuss sum to an overall decrease in expense whereas the overall change in selling, general and administrative expense was an increase. Please revise your disclosure to include any other significant components that contributed to the overall increase in expense.
4. We acknowledge your response to comment 12. It appears that you believe that you do not have an order backlog for services under Item 101(c)(viii) because your three-year grant from the National Institutes of Health is a percentage of completion contract. The fact that your contract is a percentage of completion contract does not appear to be relevant to whether a firm order for services exists. Please explain to us why a three-year commitment to provide funding for services performed is not a firm order. In this regard, it is apparent in your revenue recognition policy on page F-33 that you characterize the revenue recognized from your grants as being derived from "Firm Fixed Price Government contracts." In your response, please also tell us how your agreement with the National Institutes of Health represents a \$3 million contract as disclosed on page 13 and throughout your document, when the agreement filed as Exhibit 10.12 to your filing appears to be written for \$1 million.

Notes to the Consolidated Financial Statements, page F-5

5. Please revise the title to clarify that these are the notes to the Unaudited Consolidated Financial Statements.

Notes to the Consolidated Financial Statements, page F-28

2. Accounting Policies and Estimates

Revenue Recognition, page F-33

6. We acknowledge your response to comment 17. Please address the following additional comments:
- Please tell us how the government's ability to terminate your contracts at its convenience as disclosed in the fifth paragraph on page 13 impacts your revenue recognition policy. In your response, tell us whether your percentage-of-completion recognition based on a cost-to-cost measure could result in the recognition of revenue that would not be billable and collectible if the government terminates your contracts.
 - Please tell us how you bill the government under your contracts and how billing relates to the amount of revenue recognized. In your response, please tell us how a fixed price contract for \$3 million with the National Institutes of Health can result in the payment to date of an exact amount of \$184,954.01 as disclosed on page 13, instead of some amount in round figures.
 - You indicate in your policy note that you deliver "feasible research on drug candidates." Please tell us the importance of feasible research and explain whether you are not entitled to grant funds if your efforts result in unfeasible research. Please tell us whether there are any refund obligations under your contracts.

4. Intangible Assets, page F-35

7. Please refer to your response to comment 18. Please revise your disclosure to clarify that the anti-dilutive clause is not a freestanding instrument since any disposal of the shares held by the Licensor will render the anti-dilution clause void. In addition, please revise your disclosure to clarify the operation of how the anti-dilution clause is voided. For example, based on the information provided in the last bullet of your response, it appears that if the Licensor disposes of half of its original holdings, your anti-dilution obligation to the Licensor would be based on 1.5% of your issued equity. If this example is not indicative of how the clause operates, please clarify.

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 the information the Securities Act of 1933 and all applicable Securities Act rules require. 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Vanessa Robertson at (202) 551-3649 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Rose Zukin at (202) 551-3239, John Krug at (202) 551-3862, or me at (202) 551-3710 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Hank Gracin, Esq.
Gracin & Marlow, LLP
405 Lexington Avenue, 26th Floor
New York, NY 10174