

Mail Stop 6010

May 27, 2008

Kathy Ordoñez  
President and Chief Executive Officer  
Celera Corporation  
1401 Harbor Bay Parkway  
Alameda, CA 94502

**Re: Celera Corporation  
Amendment No. 3 to Registration Statement on Form S-1/A  
Filed on May 16, 2008  
File No. 333-149457**

Dear Ms. Ordoñez:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

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 comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Amendment No. 3 to Form S-1/A

General

1. We note that you have updated your disclosure to discuss a gene variant called KIF6 and its related laboratory service assay, which is now being offered to a trial market. In an appropriate place in your filing, please expand your disclosure to discuss the diseases, conditions, etc. with which KIF6 is associated, or for which KIF6 is considered to be a marker.

Our Company

Licensing Programs, Collaborations and Other Intellectual Property Licenses, page 85

2. We note your response to Comment 5 and reissue the comment in part. We note from Exhibit 10.18 that the term of the agreement will continue until the expiration of the last-to-expire of the patents under which rights are granted in the Agreement. Please expand your disclosure on page 86 of this filing to disclose the term of the agreement with Cepheid, specifically, the duration of the last-to-expire patent covered under the Agreement.

Undertakings, page II-2

3. It appears that this section contains undertakings that are not applicable to your offering. Please amend your filing to remove the inapplicable undertakings.

Exhibit Index, page II-6

4. We note your response to Comment 7 and reissue the comment in part.
  - As to the first qualification, please advise us as to the agreements with third parties to which you are referring. Please further advise us why the failure to perform the due diligence you say you cannot do causes you to be unable to render an opinion as to the legality of the securities being registered.
  - As to the second and third qualifications, please note that we cannot allow you to disregard due diligence you can and need to perform before rendering an opinion, because it is burdensome. It appears that verifying these agreements are in accord with the Plans and verifying that these agreements have been duly authorized, validly executed, and delivered by the parties thereto is due diligence you must perform.

\* \* \*

File a pre-effective amendment in response to these comments. Provide a letter keying your responses to the comments, and provide any requested supplemental information. If you believe complying with these comments is not appropriate, tell us why in your letter. The response letter should be uploaded to EDGAR, with the form type label "CORRESP" and linked to the registration statement file number. We may have comments after reviewing revised materials and your responses.

Submit your request for acceleration at least two business days prior to the requested effective date. You may contact Tabatha Akins at (202) 551-3658 or Joel

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Parker at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Rose Zukin at (202) 551-3239 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: William B. Sawch, Esq.  
Senior Vice President and General Counsel  
Applera Corporation  
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