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

DIVISION OF
CORPORATION FINANCE

February 9, 2015

Via E-mail
Andre Choulika
Chief Executive Officer
Cellectis S.A.
8, rue de la Croix Jarry
75013 Paris, France

Re: Cellectis S.A.
Amendment No. 1 to Draft Registration Statement on Form F-1
Submitted January 27, 2015
CIK No. 0001627281

Dear Mr. Choulika:

We have reviewed amendment no. 1 to your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Overview, page 1

1. We note your response to comment 1 and your continued disclosure that "[r]ecent clinical results indicate that CAR-based immunotherapy is one of the most promising areas of cancer research…" As you have not yet commenced any clinical trials with respect to CAR-based immunotherapy, please expand your disclosure to describe the clinical results you are referring to, including the subject of the trials, who and when they were conducted and why you believe they suggest that CAR-based immunotherapy is a "promising area of cancer research."

The rights of shareholders in companies subject to French corporate law differ, page 66

2. We reissue comment 12. Please include a relevant discussion under this heading or in a separate risk factor.

Use of Proceeds, page 71

3. We note your responses to our prior comment 13 and 14 that you are not able to provide the information requested by our comment. Item 504 of Regulation S-K requires disclosure of the approximate amount intended to be used for each specific purposes identified for the use of proceeds. We understand that the development of product candidates is subject to uncertainty, but that does not relieve you of your obligation to provide investors with your best estimate, based on reasonable assumptions, of the manner in which you will allocate investors' funds. In this regard, we note that your pipeline table identifies four UCART product candidates at various stages of development that you expect to enter into clinical or pre-clinical studies in 2015. Your use of proceeds disclosure should indicate how you expect to prioritize the use of proceeds from the offering to advance each of the product candidates in this regard. Accordingly, please revise your use of proceeds disclosure to indicate:

   - how you intend to allocate the proceeds of the offering towards the development of each of your product candidates; and

   - how far in the pre-clinical and/or clinical development process you expect the allocated proceeds from this offering will enable you to reach for each of the product candidates you identify.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Overview, page 79

4. Please refer to your response to comment 15. You state that the company considers payments from Servier and Pfizer to be cash generated by operations. However, on page 80 you disclose that "payments under our strategic alliances" is another source of funding in addition to cash generated by operations. Therefore please revise your disclosure to be consistent with page 91 or explain to us why "cash generated by operations" is not a duplicative explanation.

Financial Operations Overview
Research and Development Expenses, page 83

5. Please refer to your response to comment 16. You state that you do not track research and development expenses by product candidate. However, our comment had asked for disclosure of external costs since you disclose on page 83 that you track significant external costs by product candidate. Therefore, please clarify your disclosure on page 83 to clarify that you do not track any research and development expenses by product, if true, or alternatively provide the disclosure requested in our original comment.

Intellectual Property
Current Intellectual Property Portfolio, page 123

6. We note your response to our prior comment 20 and your revised disclosure providing the expirations dates and jurisdictions for your patents and patent applications. Please revise your disclosure to identify the specific product candidates and related technologies covered by the patent and patent applications you identify.

Results of Operations
Research and development expenses, page 87

7. Since research and development expenses are a significant portion of your results of operations, please provide a quantitative discussion of the nature of research and development expenses for each period presented.

Statement of Consolidated Operations, page F-4

8. Please refer to your response to comment 30. Please explain to us why 'Revenues and other income" are not part of 'Operating income' since they are included in the calculation for 'Operating Loss'.

Notes to the Consolidated Financial Statements
Note 3. Summary of significant accounting policies
3.19 Classification of operating expenses, page F-17

9. We acknowledge that you are still evaluating comment 31 and this comment will remain open until you we review your response to the comment.

You may contact Vanessa Robertson at (202) 551-3649 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Johnny Gharib at (202) 551-3170, Bryan Pitko at (202) 551-3203 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ *Bryan J. Pitko* for

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Boris Dolgonos, Esq.
Jones Day