

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

DIVISION OF CORPORATION FINANCE

September 12, 2017

Marie-Bleuenn Terrier General Counsel Cellectis S.A. 8, rue de la Croix Jarry 75013 Paris, France

> Re: Cellectis S.A. Form 20-F for Fiscal Year Ended December 31, 2016 Filed March 23, 2017 File No. 001-36891

Dear Ms. Terrier:

We have reviewed your filing and have the following comment.

Please respond to the comment within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to the comment, we may have additional comments.

Form 20-F

Current Intellectual Property Portfolio, page 76

1. In future filings, for each of your material product candidates, please expand your disclosure to discuss the type of patent protection you have (e.g., composition of matter, use or process) and the expiration (or expected expiration) dates of the most significant patents within the portfolio. Please ensure that your disclosure specifically addresses the patent expiration dates for any patents related to UCART19 and UCART123.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff. Marie-Bleuenn Terrier Cellectis S.A. September 12, 2017 Page 2

Please contact Chris Edwards at (202) 551-6761 or Erin Jaskot at (202) 551-3442 with any questions.

Division of Corporation Finance Office of Healthcare & Insurance