



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

DIVISION OF
CORPORATION FINANCE

January 31, 2020

Alison Lawton
Chief Executive Officer
Kaleido Biosciences, Inc.
65 Hayden Avenue
Lexington, MA 02421

**Re: Kaleido Biosciences, Inc.
Form 8-K
Exhibit No. 10.1
Filed January 3, 2020
File No. 001-38822**

Dear Ms. Lawton:

You have redacted information from the exhibit identified above asserting that the redacted information is not material and would cause competitive harm if publicly disclosed. For us to assess your compliance with the form requirements, please supplementally provide us, within five business days, with an unredacted paper copy (marked to show where you have redacted information in your public filing) of the exhibit identified above.

Please submit your response only to the address presented below. Given your conclusion that public disclosure of this information would cause you competitive harm, do not respond by submitting correspondence on EDGAR, sending a response by email or by sending your response to a Division staff member. Unless you tell us otherwise, we will assume that you want us to treat the requested supplemental materials, including unredacted documents and any related correspondence, as confidential while in our possession. We will destroy the supplemental materials at the end of our assessment unless doing so would be inconsistent with Rules 418 or 12b-4. Please let us know if you would prefer us to return the materials to you at the end of the process rather than destroy them.

To protect the confidentiality of your response, send it to:

Office of Disclosure Support, Mail Stop 4561
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

We will notify you of any comments we may have or that we have concluded our assessment of your compliance with the form.

If you have any questions, please contact us at RedactedExhibits@sec.gov. Include only your contact information in the email and your examiner will call you. Do not include or discuss any confidential information in your email.

Sincerely,

