

**Kaleido Biosciences, Inc.**  
**65 Hayden Avenue**  
**Lexington, MA 02421**

March 6, 2020

**Via EDGAR Transmission**

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549

Re: Kaleido Biosciences, Inc.: Registration Statement on Form S-3 filed March 2, 2020 (File No. 333-236804)

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the “**Act**”), Kaleido Biosciences, Inc. (the “**Company**”) hereby requests that the effective date of the above-referenced registration statement (the “**Registration Statement**”) be accelerated to March 10, 2020, at 4:01 pm Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act.

If you have any questions regarding this request, please contact Laurie Burlingame of Goodwin Procter LLP at (617) 570-1879.

Sincerely,

Kaleido Biosciences, Inc.

/s/ Alison Lawton

Alison Lawton

President and Chief Executive Officer

cc: Jerald Korn, *Kaleido Biosciences, Inc.*  
Kingsley L. Taft, Esq., *Goodwin Procter LLP*  
Laurie Burlingame, Esq., *Goodwin Procter LLP*