

June 4, 2019

Balkrishan (Simba) Gill, Ph.D.
Chief Executive Officer
Evelo Biosciences, Inc.
620 Memorial Drive
Cambridge, MA 02139

Re: Evelo Biosciences, Inc.
Registration Statement on Form S-3
Filed June 3, 2019
File No. 333-231911

Dear Mr. Gill:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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.

Please contact Ada D. Sarmiento at 202-551-3798 with any questions.

Sincerely,

Division of

Office of

Corporation Finance

Healthcare & Insurance

cc: Peter N. Handrinos, Esq.