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

DIVISION OF
CORPORATION FINANCE

June 16, 2021

Shawn Leland, Pharm.D., R.Ph.
Chief Executive Officer
Elevation Oncology, Inc.
888 Seventh Ave., 12th Floor
New York, NY 10106

Re: Elevation Oncology, Inc.
Registration Statement on Form S-1
Filed June 4, 2021
File No. 333-256787

Dear Dr. Leland:

We have reviewed your 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-1 filed June 4, 2021

Overview, page 1

1. We note your revised disclosure in response to prior comment 1. Please disclose whether you have received any indication from the FDA that your Phase 2 clinical trial will be treated as a registrational clinical trial such that a Phase 3 trial will not be required. Alternatively, please revise the disclosure to make it clear that even if you receive positive data from the CRESTONE trial, you cannot be certain that the FDA or other regulators will find such data sufficient to support a BLA submission or that the FDA or other regulators will not require you to conduct additional trials.

Our Lead Program, page 102

2. We note your revised disclosure in response to prior comment 3. Please revise to remove the reference to addressing "risks" of clinical development within rare, genomically-defined patient populations, as it appears premature and speculative. In this regard, we note that you have not completed clinical development or obtained regulatory approval for any product candidate.

CRESTONE dose and schedule optimization, page 155

3. We note your disclosure that the criteria of no more than 1 DLT was met in both of the initial safety run-in induction cohorts, supporting advancement towards 3 grams weekly for full duration of therapy. Please revise to clarify whether you observed any serious adverse events that were related or possibly related to treatment in your safety run-in and dose schedule optimization phase of your CRESTONE trial.

General

4. We note that you filed a collaboration agreement with Caris MPI, Inc. with your last amendment. Please include a description of the material terms of this agreement in the prospectus, including rights and obligations, financial terms including amounts paid to date, aggregate milestone amounts to be paid or received, the royalty range and term, as applicable, term and termination provisions. With regard to the royalty range, please disclose a royalty range of not more than 10 percentage points.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Gary Newberry at 202-551-3761 or Kevin Kuhar at 202-551-3662 if you have questions regarding comments on the financial statements and related matters. Please contact Deanna Virginio at 202-551-4530 or Christopher Edwards at 202-551-6761 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Julia Forbess, Esq.