

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

DIVISION OF CORPORATION FINANCE

January 28, 2011

Patrick R. Gruber, Ph.D., Chief Executive OfficerGevo, Inc.345 Inverness Drive South, Building C, Suite 310Englewood, CO 80112

Re: Gevo, Inc. Amendment No. 4 to Registration Statement on Form S-1 Filed January 19, 2011 File No. 333-168792

Dear Dr. Gruber:

We have reviewed your registration statement and response letter filed January 19, 2011 and have the following comments.

General

1. In locations as appropriate, please describe the specific effects on your business should you not be able to successfully defend the patent infringement lawsuit filed by Butamax Advanced Biofuels LLC. Generic statements that your ability to compete may be impaired and that you will incur significant litigation-related costs are not sufficient.

Use of proceeds, page 49

2. In light of the fact that you have included litigation expenses in your Item 504 disclosure, please revisit the description of the use of proceeds and revise to quantify, to the extent practicable, the amounts you intend to attribute to each stated use.

20. Subsequent Events (Unaudited), page F-56

- 3. Please revise your filing to correct the date of the lawsuit, if necessary, filed by Butamax Advanced Biofuels LLC, which is disclosed herein and on page 127 as January 14, 2010.
- 4. Please revise your filing to address the disclosure requirements of ASC Topic 450-20-50-1 through 450-20-50-4 related to the lawsuit filed by Butamax Advanced Biofuels LLC for alleged patent infringement. We also note your disclosure on page 119 that you expect to incur significant litigation costs associated with your defense.

Dr. Patrick R. Gruber Gevo, Inc. January 28, 2011 Page 2

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.

You may contact Jennifer Do, Staff Accountant at (202) 551-3743 or Terence O'Brien, Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Chambre Malone, Staff Attorney at (202) 551-3262 or me at (202) 551-3397 with any other questions.

Sincerely,

Jay Ingram Legal Branch Chief

cc: Teri O'Brien, Esq. (*via facsimile at* (858) 458-3005) Paul, Hastings, Janofsky & Walker LLP 4747 Executive Drive 12th Floor San Diego, CA 92121