Freshfields Bruckhaus Deringer US LLP

VIA EDGAR CORRESPONDENCE

CONFIDENTIAL TREATMENT REQUESTED BY ZYMERGEN INC.: ZY

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CERTAIN PORTIONS OF THIS LETTER AS FILED VIA EDGAR HAVE BEEN OMITTED AND FILED SEPARATELY WITH THE COMMISSION. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED PURSUANT TO 17 CFR 200.83 WITH RESPECT TO THE OMITTED PORTIONS. OMITTED INFORMATION HAS BEEN REPLACED IN THIS LETTER AS FILED VIA EDGAR WITH A PLACEHOLDER IDENTIFIED BY THE MARK "[****]." THE OMITTED PORTIONS ARE BRACKETED IN THE UNREDACTED PAPER SUBMISSION FOR EASE OF IDENTIFICATION.

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

Re: Zymergen Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted March 9, 2021
File No. 377-04089

March 26, 2021

Dear Ms. Bagley:

On behalf of our client, Zymergen Inc. (the "Company"), set forth below are responses to the comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in its letter dated March 22, 2021, with respect to the above-referenced Amendment No. 1 to Draft Registration Statement on Form S-1 submitted on March 9, 2021.

The Company has publicly filed its initial registration statement on Form S-1 (the "Registration Statement") on March 23, 2021 and is hereby filing Amendment No.1 to the Registration Statement ("Amendment No. 1"), together with this letter, via EDGAR submission. For the Staff's convenience, we are providing to the Staff by electronic delivery copies of this letter as well as both a clean copy of Amendment No. 1 and a copy marked to show all changes from the draft version submitted on March 9, 2021.

For your convenience, the text of the Staff's comments is set forth in bold below, followed in each case by the Company's response. Unless otherwise indicated, all page references in the responses set forth below are to the pages of Amendment No. 1.

Prospectus Summary
Overview, page 2

1. **We note your response to comment 2 and your amended disclosure on page 2. Please further revise your disclosure to place less emphasis on the comparisons you are drawing to the development of Kevlar. In this regard, we note your current and proposed products do not appear to compete with Kevlar. For the purpose of contrasting your development process with the process used by traditional chemical and materials companies to produce novel materials, we do not object to you referencing Kevlar in a manner similar to the way you reference cellophane, nylon and Teflon, or the other additional products you reference on page 97.**

Zymergen Inc. requests that the information contained in this letter, marked by brackets, be treated as confidential information pursuant to 17 C.F.R. §200.83.

CONFIDENTIAL TREATMENT REQUESTED BY ZYMERGEN INC.: ZY

In response to the Staff's comment, the Company has revised the disclosure on pages 2-3, 96 and 100.

3. Pipeline: We plan on years of breakthrough products., page 6

2. **Please amend your disclosure to describe approximately how long you anticipate the qualification Hyaline process will take, and when you expect to begin generating revenue from your Hyaline product. Please also clarify if you will begin generating revenue on your Hyaline product prior to replacing the non-fermentation produced biomolecule, and if so, disclose the impact on your revenues from the Hyaline product, if any. Please also disclose when you estimate you will begin generating revenue from your 10 other products in development.**

In response to the Staff's comment, the Company has revised the disclosure on pages 4-5, 19-20, 73 and 98-99. In addition, the Company has revised the disclosure to indicate when it expects to begin generate revenue for Hyaline, ZYM0101 and ZYM0201. For the other seven products that the Company currently has in development, the Company does not yet have an estimated launch date for these products. However, the Company does not currently plan to launch any of these seven products before 2024.

Our Business Challenges, page 9

3. **To provide context for investors regarding the consequences to you if your contract with the CMO site in the United States expires at the end of 2021, please provide an estimate for how long it could take for you to find and enter into an agreement with another suitable CMO site.**

In response to the Staff's comment, the Company has revised the disclosure on pages 11 and 24.

Our Product and Product Pipeline, page 71

4. **We note your response to comment 10 and the revised pipeline table. As previously requested, please delete the final row of the table, here and in the summary, as the products aggregated in this row do not appear to be sufficiently developed to include with the other products in the table.**

In response to the Staff's comment, the Company has deleted the final row of the product pipeline table on pages 10, 74, 97 and 123.

Business
Overview
Our Revenue Model, page 94

5. **We note your response to comment 17, as well as your revised disclosure. Please disclose the approximate time or time range you expect it will take for a product to generate positive gross margins. In addition, please explain the basis for your statement that the 6-18 month product qualification process with customers is "typical." In this regard, we note you have launched only one product, and that product is still in qualification. As a related matter, please tell us why you believe the assumptions you present for costs and timing are reliable. In this regard, we note these assumptions appear to be based on only one product that has been developed and otherwise rely upon predictions of future development costs and times for products that are still in development.**

In response to the Staff's comment, the Company has revised the disclosure on page 2-3, 6, 9, 19, 22-23, 27, 70, 72, 74, 76, 95-96, 104, and 123-124. The Company respectfully informs the Staff that the 6-18 month qualification process only applies to electronic films products and is based on the Company's experience to date and the team's extensive historical experience selling similar products to the same customers. For this reason, the Company has replaced "typical" with "expected" 6-18 month qualification process. For the Company's consumer care and agriculture products, a product qualification process will not be similarly necessary because the Company intends to launch and sell those products directly to the end-user.

The Company further respectfully advises the Staff that, although it has only launched one product to date, it believes its costs and timing expectations are reliable. The Company uses data from four products where it has done substantial work and has incorporated estimates to product launch based on its experience and techno-economic and other analyses of the final stages of the product development process, including strain optimization and process development. Such analyses are based across all stages of development of observed data and product specific estimates across four distinct products, from start of work through finished product. In each case, specific historical data and future estimates are made for each stage of the process for each individual product and are not generalized or applied across products.

Customer Care, page 117

6. **We note your disclosure that "[r]esearch from NYU found that sustainability-marketed products were responsible for more than 50% of growth in consumer-packaged goods from 2015-2019, and that younger consumers drove the demand for sustainable packaging." Please amend your disclosure to identify the study or report conducted by NYU that supports this statement.**

In response to the Staff's comment, the Company has revised the disclosure on page 120.

Collaborative Research and Development, page 127

7. **Please disclose the economic terms of the executed project plans with Sumitomo. In this regard we note you disclose that your collaboration agreements typically include one or more of the following: payments for the R&D services to be performed, milestone payments to be received upon the achievement of the milestone events defined in the agreements, revenue sharing and royalty payments upon the commercialization of the molecules in which you share in the customer's profit.**

In response to the Staff's comment, the Company has revised the disclosure on pages 130-131. The Company respectfully notes that the Strategic Partnership Agreement with Sumitomo Chemical (the "SPA") does not include any milestone payment schedule. Instead, the agreement provides that the Company and Sumitomo equally share (50/50) both the R&D costs and net profit (once a product is commercialized) for each product unless otherwise agreed by the parties. In addition, the SPA provides that when there is a successfully developed project, the parties will decide on the business model on a case-by-case basis, given the wide variety of possibilities, in accordance with the decision-making process set forth in each Project Plan. The SPA further provides that, as a basic principle, a value chain analysis along with a fully considered business model will be used so that the benefit sharing between the parties is fair, such that neither party should benefit disproportionately relative to its contributions to development items and applications therefor. Consistent with the SPA, the two project plans the Company has executed with Sumitomo Chemical provide for a 50/50 cost share for internal and out of pocket costs (including labor, CMO, patent and regulatory costs) related to the development of the projects , but otherwise only defines the scope and specific terms governing the R&D efforts of the parties without any additional economic terms not already included in the Strategic Partnership Agreement. The Company is in discussions with Sumitomo about the commercialization of Hyaline.

Notes to Consolidated Financial Statements
2. Summary of Significant Accounting Policies
Revenue Recognition, page F-12

8. **Refer to your response to prior comment 23. In the first paragraph of your response, you state fees for R&D services are billable in connection with one to four fixed-fee phases. You further state you recognize revenue only for the phase in which you are operating through the passage of time and measure progress within each phase using the input method. This appears to be meaningful disclosure. Please revise your disclosure to include disclosure consistent with the response in this regard or advise.**

In response to the Staff's comment, the Company has revised the disclosure on pages F-12 and F-13.

14. Collaborative Agreements, page F-33

9. **You disclose you analogized to ASC 606 for Sumitomo Chemical's share of your R&D service activities and the development of the Zymergen Development Item. Please explain to us the basis for your analogy and why recognition of revenue is appropriate for this activity and how your treatment is consistent with 808-10-15-5B and 45-1.**

The Company's activities in the Sumitomo arrangement, are similar to certain activities the Company carries out in R&D service agreements which are part of our major ongoing operations. However, unlike R&D service agreements with customers, we and Sumitomo [****] own the rights to Foreground IP embodied in the end product (Sumitomo Development Item) and the intermediary (Zymergen Development Item) and have [****]. In the Sumitomo arrangement, we identified Sumitomo and the Company as active participants whereby each party works to develop their respective development items with the ultimate goal of commercializing the Sumitomo Development Item. Each Zymergen Development Item is an input into the manufacturing of the Sumitomo Development Item. Conversely, in the Company's R&D service agreements, the IP of the commercial product is [****], with only [****] within the commercialized product owned by the Company. The Company and customer are [****] of the research in those arrangements. The Company's economic rewards in its R&D service agreements are the fees it receives in exchange for the services performed, at minimal risk for the Company. Based on the guidance in ASC 606-10-15-3 and finding that the parties [****], we have concluded this arrangement with Sumitomo is not within the scope of ASC 606. Accordingly, the Company evaluated the guidance in ASC 808-10-15-5B, and identified no unit of accounts that are with a customer, and therefore this arrangement is in the scope of ASC 808, and the Company may analogize to ASC 606 for some aspects of the arrangements, consistent with ASC 808-10-15-5C.

When evaluating the guidance in 808-10-45-1, the Company noted it's incurring cost in order to further the development of the Zymergen Development Item internally and from third parties. In addition, the Company has the ability to direct the third parties to provide the services which are not directly provided to Sumitomo or are freestanding elements of the arrangement but rather are provided as a component to the overall R&D service the Company is performing under the agreement (ASC 606-10-55-37A (b)). We also evaluated indicators noted within ASC 606-10-55-39 noting that the Company is primarily responsible for fulfilling its obligation to provide development services to create the Zymergen Development Items and carries inventory risk for consumables and other materials purchased for consumption during the provision of R&D services. The R&D services, which include internal and external activities, in combination, create the Zymergen Development Item. Based on these circumstances and indicators, we concluded that the Company is the principal in these transactions and reports the expenses incurred from third parties and the revenue received from the cost share arrangement on a gross basis.

While the agreement with Sumitomo is not in scope of ASC 606, we believe that the arrangement has similarities to the example provided in ASC 808-10-55-5 (the Company has not yet adopted ASU 2018-18), as the Company's activities in pursuit of Zymergen Development Item are part of our major ongoing operations and accordingly, our accounting policy is to characterize the payments received from Sumitomo by analogy to revenue recognition principles within ASC 606.

In light of the above, the Company has revised the disclosure on page F-34 to clarify that it did not identify any service or other deliverables that would be in the scope of other authoritative guidance such as ASC 606 and therefore the Company uses 606 as an analogy.

General

10. **Please tell us whether any rights, obligations or instruments related to or associated with your currently outstanding classes of convertible preferred stock will survive the closing of this offering. We note disclosure on the bottom-half of page 15 indicating that all such securities will be converted into shares of common stock at the closing of the offering. However, on the top-half of the same page, in the second bullet, for example, you indicate that the number of shares outstanding excludes shares of common stock issuable upon the exercise of outstanding warrants to purchase Series C preferred stock.**

The Company confirms that there are no rights, obligations or instruments related to or associated with the Company's currently outstanding classes of convertible preferred stock that will survive the closing of the offering In response to the Staff's comment, the Company has revised the disclosure on pages 16, 18, 63-66, 152 and 163.

* * *

Please direct any comments regarding this submission to Sarah Solum at (650) 618-9243.

Very truly yours,

/s/ Sarah K. Solum

cc: Nasreen Mohammed

Zymergen Inc. requests that the information contained in this letter, marked by brackets, be treated as confidential information pursuant to 17 C.F.R. §200.83.

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