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February 2, 2015

Jeffrey P. Riedler, Assistant Director Division of Corporation Finance Securities and Exchange Commission Washington, D.C. 20549

Re: XBiotech Inc. Registration Statement on Form S-1 CIK No. 0001626878

Dear Mr. Riedler:

On behalf of XBiotech Inc. (the "**Company**"), we are concurrently filing with the U.S. Securities and Exchange Commission ("**Commission**") via EDGAR the above-referenced Registration Statement on Form S-1 (the "**Registration Statement**"). This Registration Statement was originally submitted to the SEC in draft form as a confidential filing on December 10, 2014 ("**Confidential Submission #1**).

On behalf of the Company, we are also responding to the comments that were contained in the SECs letter dated January 8, 2015, relating to Confidential Submission #1. For the convenience of the Staff, we are providing to the Staff copies of this letter and marked copies of the Registration Statement (against Confidential Submission #1) via EDGAR and via courier.

In this letter, we have recited the comments from the Staff in italicized type and have followed each comments with the Company's response. Except as otherwise specifically indicated, page references herein correspond to the page of the Registration Statement, as applicable.

Prospectus Summary Our Business, Page 1

1. Please briefly explain the requirements and function of the FDA's fast track designation where you initially reference it in the summary.

Response:

The Company has included the following additional disclosure regarding the FDA's fast track designation on page 1 of the Registration Statement.

"The purpose of fast track designation is to aid in the development, and expedite the review, of drugs which show promise in treating a serious or lifethreatening disease and address an unmet medical need." 2. Please disclose in the prospectus summary whether your "True Human" monoclonal antibodies are licensed or were developed in-house. If developed in-house, please clarify the extent to which the proprietary technology underlying your discovery platform and manufacturing systems are based upon licensed technology. You should file any material licenses as exhibits, describe the related agreements in the business section, and identify all licensed intellectual property as such under your "Intellectual Property" heading on page 57.

Response:

We revised the disclosure in the Prospectus Summary to describe the Company's development and licensing of monoclonal antibodies. The Company entered into a licensing agreement with a Swiss company in January 2015 under which it obtained a non-exclusive license to use its system to manufacture antibodies. The Company has described this license agreement under the "Intellectual Property" heading. The Company will file a copy of this license agreement as an exhibit to the registration statement and will be requesting confidential treatment for certain provisions contained therein.

3. In the pipeline table on page 2, you indicate that you have tested your product candidate in the indication of leukemia in Phase 1 clinical trials. Your disclosure is unclear regarding whether you have any current plans to further pursue this indication. Please tell us why leukemia appears in the pipeline table and disclose any plans you have to advance the product candidate for this indication. If you have no such plans, you should eliminate the indication from the table.

Response:

The Company does not have any current plans to advance its product candidate for leukemia and has eliminated the results of this Phase 1 clinical trial from the pipeline table on page 2 of the Registration Statement. The Company included a summary of all clinical trials in the pipeline table; however, based on the Staff's comment, it has edited the pipeline table to delete clinical studies which it does not intend on pursuing in the near future.

Risk Factors

"Even if this offering is successful...," page 9

4. In the first paragraph on page 10, you disclose that you expect the proceeds from this offering will be sufficient to fund your current operations for at least the next 30 months. On page 41, however, you disclose that your current cash and cash equivalents together with the proceeds from this offering will be sufficient to fund you through the next 12 months. Please reconcile these two disclosures.

We have revised to provide an estimate of the anticipated time frame in which the Company expects that the offering proceeds, along with its cash and cash equivalents as of December 31, 2014, will be sufficient to fund its operations.

Use of Proceeds, page 32

5. On page 37, you disclose that you intend to continue your Phase II study in pyoderma gangrenosum and that you plan to conduct a clinical study for your antibody therapy for S. aureus infections, both in 2015. If you plan to allocate a material portion of the proceeds from this offering to either of these studies, you should disclose the respective amounts in your use of proceeds section. Please also disclose how far you expect the application of these proceeds will allow you to progress in each study.

Response:

The Company has expanded its description of its use of proceeds from the offering on page 31. The Company expects to use approximately \$2 million for its Phase II study of pyoderma gangrenosum ("PG") and \$4 million for its Phase 1 study of S. aureus infections. The Company expects these proceeds should be sufficient to fund each of these studies.

Management's Discussion and Analysis

Research and Development Expenses, page 36

6. Please disclose the total research and development expenses incurred from inception to date.

Response:

The Company has revised page 35 to disclose total research and development expenses incurred from inception to through September 30, 2014.

Critical Accounting Policies

Stock-Based Compensation, page 38

7. We may have additional comments on your accounting for stock compensation or any beneficial conversion features once you have disclosed an estimated offering price. Please provide us with a quantitative and qualitative analysis explaining the difference between the estimated offering price and that fair value of each equity issuance through the date of effectiveness for the preceding twelve months.

Response:

We acknowledge the Staff's request and we respectfully advise the Staff that the Company will provide quantitative and qualitative analysis explaining the difference between the estimated offering price and the fair value of each equity issuance through the date of effectiveness for the preceding twelve months. Such analysis will be provided supplementally to the Staff once the offering price has been determined.

Foreign Currency Fluctuations, page 42

8. We note your reference here to a description of the effect of foreign currency fluctuations in the "Quantitative and Qualitative Disclosure of Market Risks" section. However, we are unable to locate this information. Please revise your disclosures as necessary. Refer to Item 305(a) of Regulation S-K.

Response:

The Company has revised page 42 to disclose the effect of foreign currency fluctuations.

Business

US Registration Study Oncology, page 46

9. Please disclose whether you have filed an Investigational New Drug (IND) application for the indication of colorectal cancer. If no IND has been filed, please tell us why.

Response:

The Company has revised page 51 to disclose that it filed an IND for its Phase III clinical trial for colorectal cancer and the IND number is 114,759.

Phase II study Pyoderma Gangrenosum (PG), page 47

10. Please disclose where you are conducting this study and whether you have filed an Investigational New Drug (IND) application for this specific indication. If no IND was filed, please tell us why.

Response:

The Company has revised pages 51-52 to disclose that it filed an IND application for this Phase II study for PG and the IND number is 112,459. The Company has also disclosed that it is a multi-site clinical study which is being conducted in five different locations. The site locations are:

Site Locations Dermatology Associates of Tallahassee Dermatology Specialists, Inc. POB Office of Research Atlanta Dermatology, Vein & Research Center, LLC Casper Surgical Center <u>City, State</u> Tallahassee, FL Oceanside, CA Tulsa, OK

Alpharetta, GA Casper, WY 11. You briefly discuss interim findings from this study to date, disclosing that several patients experienced improved wound healing. You should disclose all material results observed in this study. Your expanded disclosure should include the incidence and type of any treatment-related adverse effects observed, the total number of patients treated, and how you assessed improved wound healing in determining whether the study met the primary efficacy endpoints.

Response:

This study (NCT01965613) is currently ongoing. Interim results for the two patients that have completed all study related procedures has been confidentially disclosed to the Food and Drug Administration ("FDA"), as well as to the Principle Investigators who are conducting the trial. Because the Company does not have sufficient patients numbers at this point, any data results could possibly be misleading to investors The Company intends on publicly disclosing this information when enrollment has been completed and it meets the requirements to post the data at clinicaltrials.gov in accordance with the FDA regulations.

12. Your disclosure on page 37 indicates that you plan to continue the Phase II program for PG in 2015. Please disclose, to the extent known to you, the location, design, and goals of the next Phase II study for this indication.

Response:

The Company has revised page 36 to discuss its plans for the Phase II program for PG.

Non-Small-Cell Lung Cancer (NSCLC), page 48

13. Please expand the description of this study to include a complete discussion of the study's location, design, and results. For example, you should disclose whether this was a randomized controlled study and disclose any p-values observed. Where you reference the "control population in the Tarceva study," please add a qualifier to indicate, if true, that you refer to a historical control group. Please additionally disclose whether you have filed an IND application for this specific indication. If no IND application was filed, please tell us why.

Response:

The Company has revised pages 53-55 to include a complete discussion of the study's location, design and results. The NSCLC population described is a subset of patients that were treated as part of the Phase I/II clinical trial for XilonixTM conducted at MD Anderson Cancer Center in Houston, Texas under IND # 105,958. The aggregate results from this study were reported by Honig et al. in the Lancet Oncology, a copy of which is attached hereto¹.

¹ Hong DS., et al. MABp1, a first-in-class true human antibody targeting interleukin-1a in refractory cancers: an open-label, phase 1 dose-escalation and expansion study. Lancet Oncol. 2014 May;15(6):656-66. doi: 10.1016/S1470-2045(14)70155-X. Epub 2014 Apr 17.

When the Company discusses the control population in the Tarceva study, it uses a qualifier to indicate that it is referring to a historical control group.

Colorectal Cancer, page 50

14. Please expand the description of this study to include a complete discussion of the study's location, design, and results. For example, you should disclose whether this was a randomized controlled study and disclose any p-values observed. Where you reference the treatment with Regorafenib, please add a qualifier to indicate, if true, that you refer to a historical control group, and please add disclosure indicating the limitations inherent in comparing the results of this study with a historical control.

Response:

The Company has revised page 54 to include a complete discussion of the study's location, design and results. The Company discloses that the study was single arm and the significant p values observed. When the Company references Regofrafenib, it adds a qualifier to indicate that it is referring to a historical control group and discloses the limitations inherent in comparing the results of this study with a historical control group.

Anorexia/Cachexia, page 50

15. Please define the term "cachexia" the first time you use it in this section.

Response:

The Company has defined "cachexia" the first time that it uses this phrase in this section. Cachexia is a "an irreversible loss of muscle mass observed in the setting of a chronic disease."

Cardiovascular Disease, page 52

16. Please disclose where you conducted this study and whether you have filed an Investigational New Drug (IND) application for this specific indication. If no IND was filed, please tell us why.

The Company has revised pages 57-58 to disclose that the Phase II study for cardiovascular disease was conducted in the United States under IND # 110,908. The study was conducted at nine different locations, which are as follows:

Site Locations City Houston, TX Methodist Cardiovascular Surgery Associates Hospital Sutter Heart and Vascular Institute Sacramento, CA JFK Medical Center Atlantis, FL University of Cincinnati Cincinnati, OH Archbold memorial Hospital Thomasville, GA Jacksonville Center for Clinical Research Site 1 Jacksonville, FL Jacksonville Center for Clinical Research Site 2 Jacksonville, FL Mediquest Research Ocala, FL Florida Research Network Gainesville, FL

Psoriasis, page 53

Please expand the description of this study to include a complete discussion of the study's location, design, and results. For example, you should 17. disclose whether this was a randomized controlled study, disclose any p-values observed, and disclose the number of patients treated. Please additionally disclose whether you have filed an IND application for this specific indication. If no IND application was filed, please tell us why.

Response:

The Company has revised page 58 to include a complete discussion of the study's location, design and results. The Company has disclosed the p values observed, the number of patients treated and that the study was single arm. The IND number for this study is 112,459.

Acne, page 53

Please expand the description of this study to include a complete discussion of the study's location, design, and results. For example, you should 18. disclose whether this was a randomized controlled study, disclose any p-values observed, and disclose the number of patients treated. Please additionally disclose whether you have filed an IND application for this specific indication. If no IND application was filed, please tell us why.

Response:

The Company has revised pages 58-59 to include a complete discussion of the study's location, design and results. The Company has disclosed the p values observed, the number of patients treated and that study was single arm. The IND number for this study is 112,459.

Diabetes (Type 2), page 53

19. Please expand the description of this study to include a complete discussion of the study's design and results. For example, you should disclose whether this was a randomized controlled study, disclose any p-values observed, and disclose the number of patients treated. Please additionally disclose whether you have filed an IND application for this specific indication. If no IND application was filed, please tell us why.

The Company has revised page 59 to include a complete discussion of the study's location, design and results. The Company has disclosed the p values observed, the number of patients treated and that study was single arm. This study was conducted in Switzerland under the jurisdiction of SwissMedic. The Company is not conducting this trial in the United States and has not filed for an IND.

Intellectual property, page 57

20. You disclose that you currently have 36 issued patents in various countries. Please disclose; the specific jurisdictions covered by your issued patents, the protection your issued patents afford (e.g., composition of matter, method of treatment, etc.), and the expiration dates.

Response:

The Company has revised pages 59-60 to disclose the jurisdictions covered by the issued patents, the protections the issued patents covered and the expiration dates.

Competition, page 63

21. Please identify the specific competitors currently developing human antibodies for treatment of cancer, diabetes, cardiovascular disease, psoriasis, pyoderma gangrenosum, and acne, and disclose the progress of those competitors toward a marketed product, to the extent known to you.

Response:

The Company has revised pages 48-50 to expand its description of its competitors and their progress toward a marketed product.

Executive Compensation, page 72

22. Please provide the disclosure required by Item 402(m)-(r) of Regulation S-K for your two most highly compensated executive officers other than Mr. Simard. Please note that your "significant employees" disclosed on page 64 may qualify as executive officers according to the definition of an executive officer contained in Exchange Act Rule 3b-7. Alternately, if none of your other employees' total compensation met the threshold contained in Instruction 1 to Item 402(m)(2), please advise.

Mr. Simard is the only executive officer of the Company. He makes all significant policy making decisions on behalf of the Company with respect to operations, medical and clinical research programs and accounting matters.

23. In your description of the terms of the employment agreement with Mr. Simard in this section, you disclose that his current annual base salary is set at \$550,000. However, both the employment agreement attached as exhibit 10.1 and the summary compensation table indicate that his annual salary is \$240,000. Please reconcile the apparent discrepancy.

Response:

Mr. Simard's annual salary was \$240,000 in fiscal 2012 and 2013. The Board approved an increase in Mr. Simard's annual base salary to \$550,000, effective as of January 1, 2014.

Ownership of Certain Beneficial Owners and Managements, page 75

24. In footnote 3 to your beneficial owners table, please identify the natural person who holds sole or shared beneficial ownership of the shares hold by Haywood Securities.

Response:

As of January 22, 2015, Haywood Securities is no longer a beneficial shareholder of 5% or more of the Company's issued and outstanding shares and has been removed from the beneficial owners table.

Underwriting, page 96

25. You disclose that the underwriters are committed to purchase all of the shares of common stock offered by the prospectus if any of the shares are purchased. On page 100, however, you disclose that the shares are being offered on a best efforts, minimum/maximum basis. Please revise your disclosure to clearly indicate whether the OpenIPO process will be conducted on a firm commitment or a best efforts basis.

Response:

We have revised the disclosure on the prospectus cover page and in the Underwriting section to make clear that the offering will be made on a best efforts basis by the underwriters. It is an all or none offering—meaning that unless the full amount of proceeds stated in the prospectus is raised, the offering will fail. Please note that the Company is no longer using the OpenIPO auction process to conduct the offering.

The OpenIPO Auction Process, page 97

26. We note references throughout this section to selling shareholders. Please explain to us the role that these selling shareholders will play in the auction process and explain how they received or will receive shares to be sold in the offering. We may have further comment. Additionally, as to any selling shareholders, you should provide the disclosure in your prospectus required by Item 507 of Regulation S-K, and you should separately state the amount of securities offered by selling shareholders on the outside front cover page of the prospectus in accordance with Item 501(b)(2) of Regulation S-K.

Response:

We are no longer using the OpenIPO auction process to conduct the offering. We have revised the registration statement to describe the new offering process which is a best efforts minimum-maximum offering. There will not be any selling shareholders, so we have revised to remove references to selling shareholders.

27. You state that "some selected dealers" in addition to WR Hambrecht may conduct the auction process and confirm bids from prospective investors. Please confirm that you plan to identify these other dealers as underwriters in a future pre-effective amendment. Please additionally confirm that all underwriters' procedures will uniformly follow the procedures laid out in this section. If not, you should describe all material differences in procedure as to each underwriter. Regardless, if you intend to use multiple underwriters to facilitate the auction, you should submit a letter in which WR Hambrecht represents that each underwriter agrees to offer the shares in accordance with the procedures described in the prospectus.

Response:

Any underwriters will be named in a future amendment and identified throughout the registration statement. If any additional underwriters are added, they will follow the procedures described in the registration statement. The reference to dealers refers to selected dealers or selling group members.

28. Please tell us whether WR Hambrecht or any other underwriters who will participate in the auction will impose any account-funding requirements on prospective investors that are specific to this offering. We may have further comment.

Response:

Yes, WR Hambrecht and any other participating underwriter would impose funding requirements.

29. You disclose that investor funds received prior to closing will be wired to an escrow account for the benefit of investors and returned to investors if insufficient funds are received at closing. Please confirm that you will file the escrow agreement as an exhibit to your registration statement as soon as it becomes available.

The escrow agreement will be filed as an exhibit to the registration statement.

Notes to Consolidated Financial Statements

<u>11. Subsequent Events, page F-23</u>

30. We note you entered into a licensing agreement with STROX Biopharmaceuticals, LLC, for which you paid \$30,000, issued 50,000 options and agreed to pay a royalty on net sales. Please disclose your accounting policy for the transactions related to this agreement, including the value you ascribed to the options and where the transactions are recorded in your financial statements. Refer to ASC 808.10.50.1.

Response:

We respectfully advise the Staff that the Company has revised pages F-10 and F-23 to disclose its accounting for the STROX agreement, the value ascribed to the options issued and where the transaction is recorded in its financial statements.

Other Comments

31. Please submit all outstanding exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

Response:

We respectfully advise the Staff that the Company will submit all outstanding exhibits to the Registration Statement as soon as practicable.

32. Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

Response:

The Company will provide the Staff with proofs of all graphic, visual or photographic information which will be included in its printed prospectus prior to use.

33. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

We respectfully advise the Staff that the Company will supplementally provide the Staff with copies of all written communications, as defined in Rule 405 under the Securities Act, that the Company or anyone authorized to do so on the Company's behalf, presents to potential investors in reliance on Section 5(d) of the Securities Act.

* * * * * *

Please direct your questions or comments regarding the Company's responses to the undersigned at (239) 434-4905 or <u>laura.holm@quarles.com</u>. Thank you for your assistance.

Sincerely,

Quarles & Brady LLP

/s/ Laura M. Holm

Laura M. Holm

Enclosures

cc (w/encl.) John Simard, Chief Executive Officer XBiotech Inc.

> James R. Tanenbaum, Esq. Morrison & Foerster LLP