

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

Mail Stop 4546

October 4, 2016

M. Scott Maguire President and Chief Executive Officer Xenetic Biosciences, Inc. 99 Hayden Ave, Suite 230 Lexington, MA 02421

Re: Xenetic Biosciences, Inc.

Amendment No. 4 to Registration Statement on Form S-1

Filed September 23, 2016

File No. 333-211249

Dear Mr. Maguire:

We have reviewed your amended 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.

General

1. We note that the revised offering terms provide that investors will receive either Class A or Class B warrants. As such, it appears that you are issuing two separate unit securities each consisting in part of separate types of warrant securities. Accordingly, please revise the prospectus cover page to indicate the volume applicable to the two sets of units offered. Refer to Rule 430A.

M. Scott Maguire Xenetic Biosciences, Inc. October 4, 2016 Page 2

Prospectus Cover

2. Please revise the second paragraph of the cover page to clarify, if true, that you will proceed with the offering even if your application with NASDAQ remains pending. Also, tell us whether you will register any class of securities pursuant to Section 12(g) of the Exchange Act in the event that the NASDAQ application is not accepted or is withdrawn. If you intend to proceed with the offering while the application is pending and do not intend to register your common stock under Section 12(g), please add a risk factor to explain the effect of the automatic reporting suspension in Section 15(d) of the Exchange Act as well as the inapplicability of the proxy rules and Section 16 of the Exchange Act.

The Offering

Description of Warrants, page 10

3. We note your disclosure on page 117 that holders of warrants will be subject to a common stock ownership limitation of 4.99% of the outstanding common stock after exercise, subject to an option to increase such amount to 9.99%. Please also include a description of this limitation in exercisability of warrants here.

Risk Factors

4. We refer to the fourth paragraph on page 61. Please revise to include risk factor discussion addressing the impact on your liquidity and operating plans if you are unable to list your common shares on NASDAQ.

Holders of Series B Preferred Stock will have limited voting rights, page 42

5. We note that the title of your risk factor states that holders of Series B Preferred Stock will have "limited" voting rights and that the first sentence in the risk factor states that holders of Series B Preferred Stock have "no" rights with respect to matters that generally require the approval of holders of common stock. We also note your disclosure on page 117 that holders of Series B Preferred Stock will be entitled to vote on any matters on which the common stock shall be entitled to vote. Accordingly, please revise your disclosures to clarify the voting rights of these holders.

M. Scott Maguire Xenetic Biosciences, Inc. October 4, 2016 Page 3

<u>Description of Capital Stock</u>

Series A Preferred Stock, page 115

Series B Preferred Stock, page 116

6. We note your disclosures on pages 116 and 117 that holders of Series A and Series B preferred stock will be entitled to vote on any matters on which the common stock will be entitled to vote. Please expand your disclosure to clarify whether Series A and Series B holders vote as separate classes on any matters or whether they vote in all circumstances together with common stock holders on a 1:1 or some other basis. If the preferred holders vote separately from the common on any matters, then revise to disclose whether the vote necessary for preferred holders to approve a matter is the same as the vote applicable to common stockholders.

Please contact Irene Paik at (202) 551-6553 or Joseph McCann at (202) 551-6262 with any questions.

Sincerely,

/s/ Joseph McCann for

Suzanne Hayes Assistant Director Office of Healthcare and Insurance

cc: Mitchell D. Goldsmith, Esq. Taft Stettinius & Hollister