

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

XENOMICS, INC.

Date: April 17, 2008

By: /s/ Gian Luigi Longinotti-Buitoni

Gian Luigi Longinotti-Buitoni
Executive Chairman

AMENDMENT NO. 4 TO WARRANT AND PUT OPTION AGREEMENT

This AMENDMENT NO. 4 (the "Fourth Amendment") to the WARRANT AND PUT OPTION AGREEMENT (the "Agreement") originally dated as of November 30, 2006, by and between Gian Luigi Longinotti-Buitoni (the "Lead Investor"), and Xenomics, Inc. (the "Company"), as amended August 29, 2007, October 30, 2007, and February 25, 2008 is dated as of April 11, 2008.

WITNESSETH:

WHEREAS, on November 30, 2006, the Lead Investor and the Company entered into the Agreement and amended such Agreement on August 29, 2007, October 30, 2007; and February 25, 2008, and

WHEREAS, the entire amount of the Financing Condition has not been met as set forth in the Agreement; however, the Company and the Lead Investor wish to amend the Agreement to extend the time in which the Company may exercise its Maximum Put Amount;

WHEREAS, the parties now desire to amend Section 3(b) of such Agreement in order to preserve the Company's right to exercise the Maximum Put Amount until May 15, 2008;

NOW, THEREFORE, in consideration of and for the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Agreement is hereby amended as follows:

1. The last sentence of the definition of "Maximum Put Amount" in Section 3(b)(i) is hereby replaced in its entirety with "In no event shall the Maximum Put Amount exceed \$1,500,000 for the Units or \$.55 per Share. The Lead Investor shall have the option to purchase an additional 2,727,272 Shares (the "Additional Shares") at \$.70 per Share or an additional \$1,900,000 under the Warrants attached to aforesaid Units."
2. Section 3(b)(ii) shall be replaced in its entirety with the following:
"Since the Financing Condition has not been met, at the Company's sole discretion, upon written notice from the Company on or before May 15, 2008, by May 16, 2008 (the "Put Closing Date"), the Lead Investor shall purchase the number of Units specified in such notice up to the Maximum Put Amount divided by the applicable Exercise Price, i.e. \$.55 per Share. On the Put Closing Date, the Lead Investor shall surrender this Warrant and the full Exercise Price of the Units specified in the Notice in immediately available funds against the Company's delivery of Lead Investor's Securities. If less than all of the Additional Shares which may then be acquired on the exercise of this Warrant are specified in the Notice, the Company shall cancel this Warrant and issue and deliver to the Lead Investor a new Warrant for the Lead Investor's Additional Shares remaining."
3. The Company and the Lead Investor acknowledge that the Lead Investor's Warrants under Paragraph 1 of the Agreement shall be terminated other than the Lead Investor's option to purchase the Additional Shares underlying the Units referred to in Paragraphs 1 and 2 herein and other than the Warrants underlying the Maximum Put Option, which the Company may "put" to the Lead Investor pursuant to Paragraphs and 1 and 2 hereof.
4. (A) This Third Amendment shall be construed and interpreted in accordance with the laws of the State of New York without giving effect to the conflict of laws rules thereof or the actual domiciles of the parties.

(B) Except as amended hereby, the terms and provisions of the Agreement shall remain in full force and effect, and the Agreements and Amendments Nos. 1, 2 and 3 are in all respects ratified and confirmed. On and after the date of this Fourth Amendment, each reference in the Agreement to the "Agreement," "hereinafter," "herein," "hereunder," "hereof," or words of like import shall mean and be a reference to the Agreement as amended by this Fourth Amendment. Capitalized terms not otherwise defined herein are given the meaning ascribed to them as set forth in the Agreement.

(C) This Fourth Amendment may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute a single Amendment.
5. Copies of all notices to the Company pursuant to Paragraph 14 of the Agreement shall also be sent to: Herrick, Feinstein LLP, 2 Park Avenue, New

York, New York 10016, Attn: Ted D. Rosen, Esq.

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the date stated above.

LEAD INVESTOR

By:
Gian Luigi Longinotti-Buitoni

XENOMICS, INC.

By:
Name: Gian Luigi Longinotti-Buitoni
Title: Executive Chairman