

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

August 4, 2015

Via E-mail
Paul Kinnon
Chief Executive Officer
Transgenomic, Inc.
12325 Emmet Street
Omaha, NE 68164

Re: Transgenomic, Inc.

Form 10-K for the fiscal year ended December 31, 2014

Response Dated July 22, 2015

File No. 001-36439

Dear Mr. Kinnon:

We have reviewed your July 22, 2015 response to our comment letter and have the following comment. In our comment, we ask you to provide us with information so we may better understand your disclosure.

Please respond to the comment within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to the comment, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our July 14, 2015 letter.

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- 1. We note your response to prior comment 1. In concluding not to provide disclosure under Item 401(f)(1) of Regulation S-K, please tell us how you considered the following:
 - Item 401(f)(1) covers bankruptcy filings by a corporation or business association made both during and within the 2 years <u>after</u> a person served as an executive officer of the corporation or business association;
 - According to your Form 8-K filed September 30, 2013, Mr. Kinnon was president, CEO and a Director of ZyGEM Corporation Limited until December 2012, and the bankruptcy filing was made in April 2013;
 - Mr. Kinnon appears to have been one of the creditors that filed an involuntary Chapter 7 petition against ZyGEM in April 2013; and

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• Mr. Kinnon's primary relevant experience appears to have been during his time at ZyGEM, where he had his longest tenure in the life science industry and his only tenure as a chief executive officer.

You may contact Tom Jones at (202) 551-3602 or Tim Buchmiller, Senior Attorney, at (202) 551-3635 if you have any questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz
Assistant Director

cc (via e-mail): Jeffrey T. Hartlin, Esq. Paul Hastings LLP