

*Via Facsimile and U.S. Mail*  
Mail Stop 4720

April 12, 2010

Michael Cohen  
President, Chief Executive Officer and Chairman of the Board  
Proteonomix, Inc.  
187 Mill Lane  
Mountainside, New Jersey 07052

**Re: Proteonomix, Inc.  
Registration Statement on Form 10-12G/A  
Filed March 30, 2010  
File No. 000-53750**

Dear Mr. Cohen:

We have reviewed your March 30, 2010 response to our March 4, 2010 comment letter and have the following additional comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

**Form 10-12G/A filed March 30, 2010**

**Item 1. Business, page 3**

1. We note your disclosure on page F-30 under the "Subsequent Events" note that on March 1, 2010 you entered into a "multi-center cosmeceutical study agreement with Kishore Ahuja, M.D. to be a clinical investigator to document the clinical benefits of the Proteoderm products on aging and aged skin..." Please include a discussion of this agreement in the Business section of the filing.

2. On page F-29 you state that you formed StromaCel, Inc. on February 18, 2010; however, your disclosure on pages 3 and 17 states that you acquired its authorized shares for the “cost of formation.” Please revise your disclosure in all places appropriate to clarify whether you formed the entity or whether you acquired its shares, and, if acquired, to indicate how much consideration was paid, i.e., disclose the cost of formation.
3. We note the following statement on pages 8 and 14 of the filing: “We anticipate, based on our conversations with management of the Chinese purchasers that the SFDA will approve our cosmeceutical in first quarter, 2010.” Because the first quarter of 2010 is now over, please revise your disclosure to indicate whether or not the SFDA has approved your cosmeceutical and, if not, when you anticipate receiving such approval.
4. Throughout the filing your disclosure contains conflicting information as to when you anticipate beginning sales of your cosmeceuticals.
  - Pages 8 and 17 state that you anticipate sales to begin in the first quarter of 2010;
  - Page 12 states that “marketing” will commence in the third quarter of 2010; and
  - Pages 15 and 18 state that you anticipate sales to begin in the third quarter of 2010.

Please reconcile these statements throughout the filing.

Item 5. Directors and Executive Officers, page 23

5. We note your response to our prior comment 5. It appears that you have not revised your disclosure to describe Dr. Ashoke Agarwal’s employment from 2005 through the date of employment by the company. Please revise your disclosure to include this information pursuant to Item 401(e)(1) of Regulation S-K.

Note 7-Licensing Agreement, page F-18

6. We note your disclosure on page F-19 that you must pay \$190,000 by July 30, 2010 under the terms of your agreement with Johns Hopkins University. Please revise your disclosure to disclose whether you anticipate being able to meet this obligation when it comes due and whether you currently have the means available to make this repayment in full.

Note 9-Stockholders' Equity (Deficit), page F-21

7. On page F-23 you disclose that in the fiscal year ended December 31, 2009, you issued "137,990 shares of common stock for an obligation of shares to be issued valued at \$5,082,780 and 765,800 shares for various services valued at \$1,689,240, the fair value at the time the services were performed." Please revise your disclosure to provide more detail about these payments, including a discussion of the obligation and services paid for, the date of services performed and the securities law exemptions from registration upon which you relied.

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As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

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- the company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Laura Crotty at (202) 551-3563, Daniel S. Greenspan, Special Counsel, at (202) 551-3623 or myself at (202) 551-3715 with any questions.

Sincerely,

Jeffrey P. Riedler  
Assistant Director