



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

Mail Stop 3561

October 15, 2007

Dr. Tina S. Nova  
Chief Executive Officer  
Genoptix, Inc.  
2110 Rutherford Road  
Carlsbad, CA 92008

**RE: Genoptix, Inc.  
Amendment No. 2 to Registration Statement on Form S-1  
File No. 333-144997  
Amendment Filed October 9, 2007**

Dear Dr. Nova:

We have reviewed your filing and have the following 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. We note your response to comment 5. Please expand to describe what the company means by the statement that "our executive officers ... are solely responsible for all key decisions ...." Also revise to clarify that each noted VP and key employee does not have ultimate decision making authority with respect to the division or unit that they are in. Additionally, revise your risk factor "If we fail to attract and retain key management and other personnel ..." to address your dependence upon your executive officers and indicate that the executive officers

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perform all of your policy making functions and are solely responsible for key decisions. In responding to the foregoing, please note our expectation that your response be fact-intensive and specific. Finally, we note that you anticipate expanding your organizational structure to include additional executive officers. Revise your disclosure to address, in the appropriate locations, your plans regarding the additional executive officers.

### Closing Comments

As appropriate, please amend your registration statement 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

You may contact Raj Rajan (202) 551-3388 if you have questions regarding comments on the financial statements and related matters. Questions on other disclosure issues may be directed to Jay Williamson at (202) 551-3393.

Sincerely,

John Reynolds  
Assistant Director

cc. Frederick Muto  
(858) 550-6420