

Via Facsimile and U.S. Mail
Mail Stop 6010

September 15, 2006

Ms. Katrina J. Church
Executive Vice President, Legal Affairs
General Counsel and Secretary
Connetics Corporation
3160 Porter Drive
Palo Alto, CA 94304

Re: Connetics Corporation
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed March 13, 2006
Form 10-K/A for the Fiscal Year Ended December 31, 2005
Filed July 25, 2006
File No. 000-27406

Dear Ms. Church:

We have reviewed your June 21, 2006 and August 14, 2006 responses to our May 16, 2006 letter and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosure.

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.

Form 10-K/A for the Fiscal Year Ended December 31, 2005 (filed July 25, 2006)

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Estimates

Revenue Recognition, page 62

1. With regard to comments 1 and 3c), please provide us with additional information, in a disclosure-type format, that tells us how you were able to conclude that your revenue was fairly stated for 2004 given what appear to be

inflated levels of inventory on-hand at your distributors for the fiscal year ended December 31, 2004. Refer to SAB No. 104, Topic No. 13(A)(4)(b), as applicable.

2. We acknowledge your response to comment 3, as well as your related revised MD&A disclosure. In accordance with point d) of our initial comment, please provide us with additional information, in a disclosure-type format, that details a roll-forward of the accrual items that reduce your gross revenue for the periods presented. That is, while we acknowledge the provision information that you have included in the table on page 49 of your MD&A, it does not roll-forward each accrual amount in accordance with point 3d of our initial comment.
3. Additionally, we acknowledge your assertion that you are not able to discern between amounts related to current versus prior period sales in establishing and maintaining your accruals for items that reduce your gross revenue each period. Please explain to us how you are able to determine, and how your auditors are able to agree, for any period end, that your financial statements were materially correct, that you made no accounting errors, and that you reasonably estimated your deductions from gross sales identified as critical accounting estimates if you could not identify amounts that affect current period estimates that actually relate to prior periods. We believe that you should quantify changes in estimates that you deem critical. If you deem these amounts to be immaterial, explain how you came to that conclusion.

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Please provide us the information requested within 10 business days of the date of this letter or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a letter with your responses that keys your responses to our comments. Detailed letters greatly facilitate our review. You should furnish the letter to us via EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Amy Bruckner, Staff Accountant, at (202) 551-3657 or Lisa Vanjoske, Assistant Chief Accountant, at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant