

Mail Stop 6010

November 16, 2006

Richard Gabriel  
Chief Executive Officer and President  
DNAPrint Genomics, Inc.  
900 Cocoanut Avenue  
Sarasota, FL 34236

**Re: DNAPrint Genomics, Inc.  
Amendment No. 1 to the Registration Statement on Form SB-2  
Filed on November 15, 2006  
File Number 333-137323**

Dear Mr. Gabriel:

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.

Form SB-2

1. We note the revised disclosure you made regarding two of your shareholders Dutchess Private Equities Fund, II, L.P. and La Jolla Cove Investor in response to our comment letter dated November 6, 2006. However, given the nature and size of the transaction, it does not appear the transaction being registered is appropriately characterized as a transaction that is eligible to be made on a continuous or delayed basis under Rule 415(a)(1)(i) with respect to the shares being offering by Dutchess Private Equities Fund II, L.P. and La Jolla Cove Investor. Please remove these entities from your Form SB-2. Additionally with respect to those entities, please note that because the offering of the common stock may not be done on a delayed or continuous basis under Rule 415(a)(1)(x), you may not file a resale registration statement before the time that Dutchess Private Equities Fund II, L.P. and La Jolla Cove Investor, as selling shareholders convert or exercise the outstanding securities and acquire the common stock. At that time, you may register the transaction on the form on which you are eligible to register the transaction as a primary offering; identify the investors identified as selling shareholders and underwriters in the registration statement and include the price at which the underwriters will sell the securities.

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Please contact Song P. Brandon at (202) 551-3621 or me at (202) 551-3710 with any questions.

Sincerely,

Jeffrey P. Riedler  
Assistant Director

cc: Amy M. Trombly  
Trombly Business Law  
1320 Centre Street, Suite 202  
Newton, MA 02459