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December 23, 2009

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**VIA EDGAR**

Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Mail Stop 3030  
Washington, D.C. 20549

Attention: Ms. Mary Beth Breslin  
Mr. Jay Mumford

**Re: pSivida Corp.  
Registration Statement on Form S-3  
Filed November 25, 2009  
File No. 333-163347**

Dear Ms. Breslin and Mr. Mumford,

On behalf of pSivida Corp., a Delaware corporation (the "**Company**"), we are writing in response to the comment letter, dated December 22, 2009 (the "**Comment Letter**"), of the staff of the Division of Corporation Finance (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") to the Company's Registration Statement on Form S-3, File No. 333-163347, filed on November 25, 2009 (the "**Registration Statement**"), and relating to the Company's registration of shares of its Common Stock, \$0.001 par value per share ("**Common Stock**"), preferred stock, warrants and units.

For the convenience of the Staff's review, we have set forth the comment contained in the Comment Letter in italics followed by the responses of the Company.

**General**

1. Please provide an analysis of your eligibility to use Form S-3 for this offering. To the extent you are relying on General Instruction I.B.6 to use Form S-3, please provide the calculation required by General Instruction I.B.6(a) on the outside front cover of the prospectus. Refer to Instruction 7 to General Instruction I.B of Form S-3.

**Response:** We respectfully submit that the Company is relying on General Instruction I.B.1 for the purposes of the Registration Statement. The Company was not relying upon General Instruction I.B.6 to use Form S-3 when filing the Registration Statement, and Instruction 7 to General Instruction I.B.6 was therefore inapplicable.

At the time of filing of the Registration Statement, the Company was eligible to register primary offerings pursuant to General Instruction I.B.1. The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Company exceeded \$75,000,000, as calculated in accordance with the Instruction to General Instruction I.B.1.

As of November 25, 2009, the Company had 18,321,392 shares of outstanding Common Stock. As of such date and as set forth in the following table, persons who are or may be considered affiliates of the Company held 2,416,538 shares of Common Stock and non-affiliates held 15,904,854 shares.

<u>Beneficial Owner</u>	<u>Aggregate Number of shares of Common Stock</u>
Pfizer, Inc.	1,862,093
Directors and Officers as a group	554,445
<b>All persons who are or may be considered to be affiliates of the Company as a group</b>	<b>2,416,538</b>
<b>All non-affiliates of the Company as a group</b>	<b>15,904,854</b>
<b>Total</b>	<b>18,321,392</b>

The Company does not consider any other beneficial owner of the Common Stock of the Company to be an affiliate of the Company.

The principal market for the Common Stock of the Company is the NASDAQ Global Market. On September 28, 2009 (which is 59 days prior to the filing date of the Registration Statement), the closing price of Common Stock of the Company on the NASDAQ Global Market was \$4.91.

In accordance with General Instruction I.B.1 and the Instruction thereto, the Company calculated the aggregate market value of the Common Stock of the Company to be \$78,092,833, which is equal to \$4.91 multiplied by the 15,904,854 shares of Common Stock held by non-affiliates.<sup>1</sup>

We therefore respectfully submit that the Company was eligible to register primary offerings on Form S-3 pursuant to General Instruction I.B.1 on November 25, 2009.

\* \* \*

Please be advised that, in connection with the Comment Letter and the Company's responses thereto, the Company hereby acknowledges the Staff's position that the Company is responsible for the adequacy and accuracy of the disclosure in the Registration Statement.

On behalf of the Company, we respectfully request acceleration of the effective date of the Registration Statement to December 28, 2009. In connection therewith, the Company acknowledges that:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the Company may not assert Staff comments and the declaration of effectiveness in a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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<sup>1</sup> We note that non-affiliates of the Company held the same number of shares of Common Stock on both September 28, 2009 and November 25, 2009.

We hope that the foregoing has been responsive to the Staff's comments. Should you have any questions relating to any of the foregoing, please feel free to contact me at (617) 951-7391.

Best regards,

/s/ Mary E. Weber

Mary E. Weber

Cc: Lori Freedman (pSivida Corp.)