



DIVISION OF
CORPORATION FINANCE

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

December 23, 2011

Jeff Mathiesen
Chief Financial Officer
Sunshine Heart, Inc.
7651 Anagram Drive
Eden Prairie, Minnesota

**Re: Sunshine Heart, Inc.
Amendment No. 1 to Form 10
Filed December 16, 2011
File No. 001-35312**

Dear Mr. Mathiesen:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Overview, page 1

1. We note your response to prior comment 10. Please revise the summary to include disclosure that all revenue during 2009 and 2010 was derived from your feasibility clinical trials.

Our Product, page 2

2. Expand your discussion of the adverse consequences if your product is turned off for extended periods of time. In addition, please clarify whether use of the product, including turning it off and on, requires a visit to a medical facility.

Clinical Development, page 2

3. We note your response to prior comment 6. Please revise the second-to-last paragraph of this section to disclose the anticipated end date of the IDE study.

Sales and Marketing, page 3

4. Please disclose the anticipated timetable for the expansion of your sales into Europe and throughout the world.

Manufacturers and Suppliers, page 3

5. We note that you do not have any material long-term agreements with your suppliers. However, please revise to clarify whether you have any suppliers on which you materially rely.

Competition, page 4

6. We note your response to prior comment 9. Please revise to disclose that the potential disadvantages of the C-Pulse System are not fully known.

Properties, page 27

7. We note your revised disclosure in this section. Please continue to provide updated disclosure with your subsequent amendments. In this regard, we note that you anticipate moving your operations in late December 2011.

Summary Compensation Table, page 33

8. Given your disclosure in the last paragraph on page 33 that your employment agreement with Mr. Rosa provides for a salary of \$250,000, please provide additional disclosure clarifying why the summary compensation table indicates that Mr. Rosa received \$280,000 in base salary in 2011.
9. We note your response to prior comment 15. With a view to disclosure, please describe for us the nature and extent of your chief executive officer's consultation of certain publicly available information. For instance, please tell us the type of information that the chief executive officer consulted and how this information served as a "reference point."

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are

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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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact David Burton at (202) 551-3626 or Lynn Dicker at (202) 551-3616 if you have questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551-3316 or Daniel Morris, Special Counsel, at (202) 551-3314 with any other questions.

Sincerely,

/s/ Daniel Morris for

Amanda Ravitz
Assistant Director

cc (by e-mail): Matthew R. Kuhn -- Faegre & Benson LLP