



DIVISION OF
CORPORATION FINANCE

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

December 11, 2012

Via E-mail

Mr. Mike Tomas
Chief Executive Officer and President
And Principal Financial and Accounting Officer
Bioheart, Inc.
13794 NW 4th Street, Suite 212
Sunrise, Florida 33325

Re: Bioheart, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed on April 12, 2012 and Amended on November 9 and 15, 2012
File No. 001-33718

Dear Mr. Tomas:

We have reviewed your amended filings and your November 9, 2012 response to our October 12, 2012 letter and have the following comment.

Please respond to this letter within 10 business days by amending your filing, obtaining a waiver as referred to below in our comment or by advising us when you will provide the requested response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your response to our comment.

After reviewing any amendments filed or information provided, we may have additional comments.

Form 10-K/A for the Fiscal Year Ended December 31, 2011
Report of Independent Registered Public Accounting Firm, page F-4

1. We note your response to prior comment two. You appear to have included a copy of the report from Jewett, Schwartz, Wolfe & Associates (JSWA) in your amended Form 10-K filed on November 15, 2012. As we stated in our prior comment two, because the PCAOB revoked the registration of JSWA on September 7, 2012, a copy of its prior report can no longer be included in filings made after the date that JSWA's registration was revoked including amendments to reports originally filed before September 7, 2012. Since the waiver request granted by The Division of Corporation Finance, Chief Accountant's Office (CF-OCA) on November 22, 2011 did not contemplate the PCAOB revocation of JSWA's registration, please have your inception through 2009 financial information re-audited by your current auditor or request a new waiver from CF-OCA. Any waiver request should include a detailed analysis supporting your basis for the request.

Mr. Mike Tomas
Bioheart, Inc.
December 11, 2012
Page 2

You may contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Joel Parker, Accounting Branch Chief, at (202) 551-3651 if you have questions regarding this comment. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

/s/ Jim B. Rosenberg

Jim B. Rosenberg
Senior Assistant Chief Accountant