



DIVISION OF  
CORPORATION FINANCE

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

February 12, 2013

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 April 12, 2012**  
**File No. 001-33718**

Dear Mr. Tomas:

We have completed our review of your filings. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Joel Parker

Joel Parker  
Accounting Branch Chief