

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

October 26, 2010

Mr. Michael J. Lambert Chief Financial Officer NuVasive, Inc. 7475 Lusk Boulevard San Diego, California 92121

Re: NuVasive, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2009

Filed February 26, 2010 File No. 000-50744

Dear Mr. Lambert:

We have completed our review of your filings and do not have any further comments at this time.

Sincerely,

Jeff Jaramillo Accounting Branch Chief