

Mail Stop 6010

September 5, 2006

Mr. Kevin C. O'Boyle
Chief Financial Officer
Nuvasive, Inc.
4545 Towne Centre Court
San Diego, CA 92121

Re: Nuvasive, Inc.
Form 10-K for the fiscal year ended December 31, 2005
Form 10-Q for the quarter ended June 30, 2006
Form 8-K filed July 27, 2006
File No. 0-50744

Dear Mr. O'Boyle:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

Sincerely,

Martin F. James
Senior Assistant Chief Accountant