



DIVISION OF
CORPORATION FINANCE

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

November 2, 2010

Mr. Roger P. Deschenes
Chief Financial Officer
Implant Sciences Corporation
600 Research Drive
Wilmington, Massachusetts 01887

RE: **Implant Sciences Corporation**
Form 8-K dated October 14, 2010
Filed October 20, 2010
File No. 001-14949

Dear Mr. Deschenes:

We have completed our review of your Form 8-K and related filings and do not have any further comments at this time.

Sincerely,

Jeffrey Jaramillo
Accounting Branch Chief