



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

July 30, 2009

Via Facsimile and U.S. Mail

Mr. Francis J. Tarallo
Chief Financial Officer and Treasurer
Theragenics Corporation
5203 Bristol Industrial Way
Buford, Georgia 30518

**Re: Theragenics Corporation
Annual Report on Form 10-K
Filed March 13, 2009
File No. 001-14339**

Dear Mr. Tarallo:

We refer to your response to prior comment 3 in your letter dated July 22, 2009. Without more detail, we are unable to express an opinion regarding your conclusion that you have an appropriate basis to omit the identified performance targets. Since you are in possession of all facts related to your disclosure, we have determined not to disagree further regarding your decision to omit this information from your filing. As in all cases, we remind you that you are responsible for the adequacy and accuracy of the disclosure in your filings.

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

Sincerely,

Tim Buchmiller
Senior Attorney