



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

DIVISION OF
CORPORATION FINANCE

September 22, 2010

Claire L. Kruger
Chief Executive Officer and Chief Operating Officer
Spherix Incorporated
6430 Rockledge Drive #503
Bethesda, Maryland 20817

**Re: Spherix Incorporated
Amendment No. 2 to Registration Statement on Form S-1
Filed September 17, 2010
File No. 333-167963**

Dear Ms. Kruger:

We have reviewed your amendment and response letter filed on September 17, 2010. We have an additional comment.

Exhibit 5.1

1. We note your response to comment two issued in our letter dated September 17, 2010, as well as counsel's revised legal opinion. The last sentence in the penultimate paragraph of the revised opinion is not acceptable as it qualifies counsel's opinion with respect to the warrants in an impermissible manner. Please either have counsel remove the jurisdictional qualification in the noted sentence or obtain and file an additional, unqualified opinion that the warrants will be your legal and binding obligations.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Ms. Claire L. Kruger
Spherix Incorporated
September 22, 2010
Page 2

You may contact Chambre Malone, Staff Attorney at (202) 551-3262 or Dietrich King, Staff Attorney at (202) 551-3338 if you have any questions.

Sincerely,

Pamela Long
Assistant Director

cc: James E. Baker, Jr. (via facsimile at (410) 230-3801)
Baxter, Baker, Sidle, Conn & Jones, P.A.
120 E. Baltimore Street, Suite 2100
Baltimore, Maryland 21202