

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) December 20, 2010

Spherix Incorporated

(Exact name of registrant as specified in its charter)

| | | |
|---|-----------------------------|---|
| (State or other jurisdiction of incorporation) | (Commission File Number) | (I.R.S. Employer Identification No.) |
| Delaware | 0-5576 | 52-0849320 |
| (Address of principal executive offices) | | (Zip Code) |
| 6430 Rockledge Drive, Suite 503, Bethesda, Maryland | | 20817 |
| Registrant's telephone number, including area code | | <u>301-897-2540</u> |

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Entry into a Material Definitive Agreement

Please refer to the disclosure provided under Item 3.03 of this Current Report on Form 8-K.

Item 3.03 Material Modification to Rights of Security Holders

On December 20, 2010, Spherix Incorporated (the "Company") and American Stock Transfer and Trust Company, LLC, as Right Agent, entered into a First Amendment to Rights Agreement (the "Amendment"), to amend that certain Rights Agreement dated as of February 16, 2001 between the Company and the Rights Agent (the "Rights Agreement"). Each preferred

share purchase right issued under the Rights Agreement, when exercisable, entitles the holder to purchase from the Company 1/100th of a share of Company preferred stock at a price of \$16.00 subject to adjustment. The description and terms of the rights are set forth in the Rights Agreement, a copy of which was filed in a Form 8-A filed on March 6, 2001, and which is incorporated herein by reference.

The Amendment extends the term of the Rights Agreement. The Rights Agreement was scheduled to expire on December 31, 2010. The Amendment extends the term of the Rights Agreement through December 31, 2012.

A copy of the Amendment is attached as Exhibit 4.2 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits

(c) Exhibits

Attached as exhibits to this form are the documents listed below:

| <u>Exhibit</u> | <u>Document</u> |
|-----------------------|---|
| 4.1 | Rights Agreement, dated as of February 16, 2001 (incorporated by reference to Form 8-A filed on March 6, 2001). |
| 4.2 | First Amendment To Rights Agreement, dated as of December 20, 2010. |

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

SPHERIX INCORPORATED

Date: December 20, 2010

By: /s/ Claire L. Kruger
Claire L. Kruger,
Chief Executive Officer and
Chief Operating Officer

EXHIBIT 4.2

FIRST AMENDMENT TO RIGHTS AGREEMENT

THIS FIRST AMENDMENT TO RIGHTS AGREEMENT (the "Amendment") is made as of December 20, 2010, between Spherix Incorporated, formerly Biospherics Incorporated (the "Company"), and American Stock Transfer And Trust Company, LLC (the "Rights Agent").

WHEREAS, the Company and the Rights Agent are parties to that certain Rights Agreement dated as of February 16, 2001 (the "Original Rights Agreement");

WHEREAS, Section 26 of the Original Rights Agreement provides, in part, that for so long as the Rights (as defined in the Agreement) are redeemable, the Agreement may be supplemented or amended without the approval of holders of the Rights;

WHEREAS, the Rights are currently redeemable; and

WHEREAS, the Board of Directors of the Company has determined in good faith that the amendments to the Agreement set forth herein are desirable and, pursuant to Section 26 of the Agreement, has duly authorized such amendments to the Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Rights Agent hereby agree as follows:

1. **DEFINITIONS.** Except as otherwise set forth in this Amendment, each capitalized term used in this Amendment shall have the meaning for such term set forth in the Original Rights Agreement.
2. **DEFINITION OF AGREEMENT.** From and after the date hereof, all references in the Original Rights Agreement to the "Agreement" shall mean and refer to the Original Rights Agreement, as modified by this Amendment.
3. **DEFINITION OF EXPIRATION DATE.** Section 1(s) of the Original Rights Agreement is hereby amended by deleting the reference therein to "December 31, 2010" and replacing it with "December 31, 2012".
4. **COUNTERPARTS.** This Amendment may be executed in one or more counterparts, each of which shall constitute an original and all of which together shall constitute but one original; provided, however, this Amendment shall not be effective unless and until signed by the Company and the Rights Agent.
5. **GOVERNING LAW.** This Amendment shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the internal laws of Delaware applicable to contracts to be made and performed entirely within Delaware.
6. **SEVERABILITY.** If any term, provision, covenant or restriction of this Amendment is held by a court of competent jurisdiction or other authority to be invalid, void or

unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Amendment shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

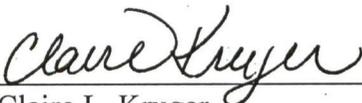
7. EFFECTIVE DATE. This Amendment shall become effective as of the date first written above.

8. CERTIFICATION. The Company hereby certifies to the Rights Agent that this Amendment is in compliance with Section 26 of the Original Rights Agreement.

9. FULL FORCE AND EFFECT. The Original Rights Agreement, as amended by this Amendment, shall remain in full force and effect in accordance with its terms. In the event of any conflict, inconsistency or incongruity between any provision of this Amendment and any provision of the Original Rights Agreement, the provisions of this Amendment shall govern and control.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and attested as of the date first written above.

SPHERIX INCORPORATED

By: 
Claire L. Kruger,
Chief Executive Officer and
Chief Operating Officer

AMERICAN STOCK TRANSFER AND
TRUST COMPANY, LLC,
as Rights Agent

By: 
HERBERT J. LEMMER
VICE PRESIDENT