

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

FORM 8-A/A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) or (g) OF THE
SECURITIES EXCHANGE ACT OF 1934

SPHERIX INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation of organization)

52-0849320
(IRS Employer
Identification No.)

6430 Rockledge Drive, Westmoreland Building #503, Bethesda, Maryland 20817
(Address of principal executive offices) (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act: None

Securities to be registered pursuant to Section 12(g) of the Act: Preferred Share Purchase Rights

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box. []

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box. [x]

EXHIBIT INDEX

Exhibit

- 4.1 Rights Agreement, dated as of November 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.

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.

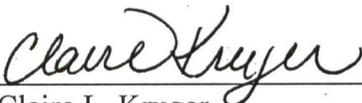
7. EFFECTIVE DATE. This Amendment shall become effective as of the date first written above.

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

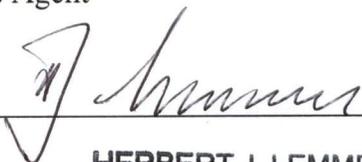
9. FULL FORCE AND EFFECT. The Original Rights Agreement, as amended by this Amendment, shall remain in full force and effect in accordance with its terms. In the event of any conflict, inconsistency or incongruity between any provision of this Amendment and any provision of the Original Rights Agreement,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