

REPOS THERAPEUTICS INC.  
Form 8-A12B/A  
September 10, 2010

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

FORM 8-A/A  
(Amendment No. 6)

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

Repos Therapeutics Inc.  
(Exact name of registrant as specified in its charter)

Delaware  
(State of incorporation or organization)

76-0233274  
(I.R.S. Employer Identification No.)

2408 Timberloch Place, Suite B-7  
The Woodlands, Texas  
(Address of principal executive offices)

77380  
(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered:	Name of each exchange on which each class is to be registered:
Rights to purchase Series One Junior Participating Preferred Stock	The NASDAQ Stock Market LLC

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.:

Securities Act registration statement file number to which this form relates: Not Applicable.

Securities to be registered pursuant to Section 12(g) of the Act:

Not Applicable  
(Title of class)

EXPLANATORY NOTE

This Amendment No. 6 on Form 8-A/A amends Repros Therapeutics Inc.'s (the "Company's") Registration Statement on Form 8-A (as amended, the "Form 8-A") filed with the Securities and Exchange Commission (the "Commission") on September 3, 1999, as amended by Amendment No. 1 on Form 8-A/A filed with the Commission on September 11, 2002, by Amendment No. 2 on Form 8-A/A filed with the Commission on October 31, 2002, by Amendment No. 3 on Form 8-A/A filed with the Commission on June 30, 2005, by Amendment No. 4 on Form 8-A/A filed with the Commission on January 9, 2008 and by Amendment No. 5 on Form 8-A/A filed with the Commission on October 10, 2008, all of which relate to the registration of the Company's rights to purchase Series One Junior Participating Preferred Stock attached to the Company's common stock pursuant to the Company's Rights Agreement between the Company and Computershare Trust Company, N.A., as Rights Agent (the "Rights Agent"), dated as of September 1, 1999, as amended by the First Amendment to Rights Agreement by and among the Company, the Company's previous rights agent and the Rights Agent dated as of September 6, 2002, by the Second Amendment to Rights Agreement between the Company and the Rights Agent dated as of October 30, 2002, by the Third Amendment to Rights Agreement between the Company and the Rights Agent dated as of June 30, 2005, by the Fourth Amendment to Rights Agreement between the Company and the Rights Agent dated as of January 9, 2008 and by the Fifth Amendment to Rights Agreement between the Company and the Rights Agent dated as of October 10, 2008 (as amended, the "Rights Agreement").

Item 1. Description of Registrant's Securities to be Registered

Item 1 of the Company's Form 8-A is hereby amended as follows:

On September 9, 2010, the Company and the Rights Agent amended ("Amendment No. 6") the Rights Agreement. The following paragraph summarizes the principal amendment to the Rights Agreement as effectuated by Amendment No. 6. Capitalized terms not defined herein have the meanings as set forth in the Rights Agreement.

Amendment No. 6 amends the Rights Agreement to extend the expiration date of the Rights Agreement for five years from September 13, 2010 to September 13, 2015.

Amendment No. 6 is incorporated herein by reference, and the foregoing description is qualified in its entirety by reference to Amendment No. 6.

Item 2. Exhibits

The following exhibits to this Amendment No. 6 to Registration Statement on Form 8-A/A, which constitute all constituent instruments defining the rights of the holders of the Common Stock of the Company, including any contracts or other documents which limit or qualify the rights of such holders, are either filed herewith or are incorporated by reference from the documents specified, which have been filed with the Commission.

3.1(a) Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.3 to the Company's Registration Statement on Form SB-2 (No. 33-57728-FW), as amended).

- 3.1(b) Certificate of Amendment to the Company's Restated Certificate of Incorporation, dated as of May 2, 2006 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K as filed with the Commission on May 2, 2006).
- 3.1(c) Certificate of Designation of Series One Junior Participating Preferred Stock dated September 2, 1999 (incorporated by reference to Exhibit A to Exhibit 4.1 to the Form 8-A).
- 3.1(d) Certificate of Amendment to Restated Certificate of Incorporation, dated as of December 16, 2008 (incorporated by reference to Exhibit 3.1(d) to the Company's Current Report on Form 8-K as filed with the Commission on December 23, 2008).
- 3.1(e) Certificate of Amendment to Restated Certificate of Incorporation, dated as of November 18, 2009 (incorporated by reference to Exhibit 3.1(e) to the Company's Current Report on Form 8-K dated November 19, 2009).
- 3.2 Restated Bylaws of the Company (incorporated by reference to Exhibit 3.4 to the Company's Registration Statement on Form SB-2 (No. 33-57728-FW), as amended).
- 4.1 Rights Agreement dated September 1, 1999 between the Company and Computershare Trust Company, N.A. ("Computershare") (as successor in interest to Harris Trust and Savings Bank ("Harris Trust")), as Rights Agent (incorporated by reference to Exhibit 4.1 to the Form 8-A).
- 4.2† Form of Rights Certificate (incorporated by reference to Exhibit B to Exhibit 4.1 to the Form 8-A).
- 4.3 First Amendment to Rights Agreement, dated as of September 6, 2002, between the Company, Harris Trust and Computershare (incorporated by reference to Exhibit 4.3 to Amendment No. 1 on Form 8-A/A as filed with the Commission on September 11, 2002).
- 4.4§ Second Amendment to Rights Agreement, dated as of October 30, 2002, between the Company and Computershare (incorporated by reference to Exhibit 4.4 to Amendment No. 2 on Form 8-A/A as filed with the Commission on October 31, 2002).
- 4.5 Third Amendment to Rights Agreement, dated as of June 30, 2005, between the Company and Computershare (incorporated by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K as filed with the Commission on June 29, 2005).
- 4.6 Fourth Amendment to Rights Agreement, dated as of January 9, 2008, between the Company and Computershare (incorporated by reference to Exhibit 4.5 to the Company's Current Report on Form 8-K as filed with the Commission on January 10, 2008).
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4.7 Fifth Amendment to Rights Agreement, dated as of October 10, 2008, between the Company and Computershare (incorporated by reference to Exhibit 4.6 to the Company's Current Report on Form 8-K as filed with the Commission on October 10, 2008).

4.8 Sixth Amendment to Rights Agreement, dated as of September 9, 2010, between the Company and Computershare (incorporated by reference to Exhibit 4.7 to the Company's Current Report on Form 8-K as filed with the Commission on September 10, 2010).

† Incorporated herein by reference.

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SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Amendment No. 6 to the Registration Statement on Form 8-A/A to be signed on its behalf by the undersigned, thereunto duly authorized.

Repros Therapeutics Inc.

Date: September 10, 2010

By: /s/ Joseph S. Podolski  
Joseph S. Podolski  
President and Chief Executive  
Officer

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EXHIBIT INDEX

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- 4.8~~S~~Sixth Amendment to Rights Agreement, dated as of September 9, 2010, between the Company and Computershare (incorporated by reference to Exhibit 4.7 to the Company's Current Report on Form 8-K as filed with the Commission on September 10, 2010).

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