

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

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**FORM 8-K**

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**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, 2011**

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**Titan Pharmaceuticals, Inc.**

(Exact Name of Registrant as Specified in Charter)

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**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**0-27436**  
(Commission  
File Number)

**94-3171940**  
(IRS Employer  
Identification No.)

**400 Oyster Point Blvd., Suite 505,**  
**South San Francisco, CA**  
(Address of Principal Executive Offices)

**94080**  
(Zip Code)

**Registrant's telephone number, including area code: 650-244-4990**

(Former Name or Former Address, if Changed Since Last Report)

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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))

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**Item 1.01. Entry Into a Definitive Material Agreement.**

On December 20, 2011, the Board of Directors of Titan Pharmaceuticals, Inc. (the "Company") declared a dividend of one preferred share purchase right (a "Right") for each outstanding share of common stock, par value \$0.001 per share (the "Common Stock"), of the Company. The dividend is payable on January 3, 2012 (the "Record Date") to the stockholders of record on that date. Each Right entitles the registered holder to purchase from the Company one one-thousandth of a share ("Unit") of Junior Participating Preferred Stock of the Company, par value \$0.001 per share (the "Preferred Stock"), at a price of \$4.41 per Unit (the "Purchase Price"), subject to adjustment. The description and terms of the Rights are set forth in the Rights Agreement, dated December 20, 2011 (the "Rights Agreement"), between the Company and Continental Stock Transfer & Trust Company, LLC as Rights Agent (the "Rights Agent"). The following description of the terms of the Rights Agreement does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement which is attached hereto as an exhibit and is incorporated herein by reference.

**Distribution Date; Exercisability**

One Right will automatically attach to each share of Common Stock issued between the Record Date and the earlier of the Distribution Date or the Expiration Date (as such terms are hereinafter defined). Initially, the Rights are not exercisable and are attached to and will trade with all shares of Common Stock outstanding as of, and issued subsequent to, the Record Date and no separate certificates evidencing the Rights ("Right Certificates") will be issued. The Rights will separate from the Common Stock and will become exercisable upon the earlier of (i) the close of business on the 10<sup>th</sup> calendar day following the first public announcement that a person or group of affiliated or associated persons (an "Acquiring Person") has acquired or has the right to acquire beneficial ownership of 15% or more of the outstanding shares of Common Stock, other than as a result of repurchases of stock by the Company or the grant of any equity compensation awards or Board approved unilateral grants of any security to the person (the date of said announcement being referred to as the "Stock Acquisition Date"), or (ii) the close of business on the 10<sup>th</sup> business day (or such later day as the Board of Directors may determine) following the commencement of a tender offer or exchange offer that could result, upon its consummation, in a person or group becoming the beneficial owner of 15% or more of the outstanding shares of Common Stock (the earlier of such dates being herein referred to as the "Distribution Date").

The Rights are not exercisable until the Distribution Date and will expire at the close of business on December 20, 2012, unless earlier redeemed or exchanged by the Company as described below.

**Flip-In**

If a person or group becomes an Acquiring Person (with certain limited exceptions), each holder of a Right will thereafter have the right to receive, upon exercise of the Right and payment of the Purchase Price, such number of Units (or at the option of the Company, that number of shares of Common Stock) having a market value of two times the Purchase Price, or, effectively, a 50% discount to the then market price. Notwithstanding any of the foregoing, following the existence of an Acquiring Person, all Rights that are, or (under certain circumstances specified in the Rights Agreement) were, beneficially owned by any Acquiring Person will be null and void.

For example, at an exercise price of \$4.41 per Right, each Right not owned by an Acquiring Person following an event set forth in the preceding paragraph would entitle its holder to purchase \$8.82 worth of common equivalent shares (or other consideration, as noted above) for \$4.41. Assuming a value of \$1.47 per share of Common Stock at such time, the holder of each valid Right would be entitled to purchase Units of Preferred Stock with a value substantially equivalent to six shares Common Stock.

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### Flip-Over

In the event that the Company is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold after a person or group has become an Acquiring Person, proper provision will be made so that each holder of a Right will thereafter have the right to receive, upon the exercise thereof at the then-current exercise price of the Right, that number of shares of common stock of the acquiring company, which at the time of such transaction will have a market value of two times the exercise price of the Right. Rights that are or were beneficially owned by an Acquiring Person may (under certain circumstances specified in the Rights Agreement) become null and void.

### Redemption

The Company may redeem all, but not less than all, of the then-outstanding Rights at a price of \$0.0001 per Right (payable in cash, Common Stock or other consideration deemed appropriate by the Board of Directors) by the Board of Directors at any time prior to such time when a person becomes an Acquiring Person. Immediately upon the action of the Board of Directors ordering redemption of the Rights, the Rights will terminate and thereafter the only right of the holders of Rights will be to receive the redemption price.

### Exchange

The Company may at any time after any person first becomes an Acquiring Person owning less than 50% of the shares of Common Stock then outstanding, exchange all or part of the then-outstanding and exercisable Rights (other than an Acquiring Person or its associates or affiliates, or a transferee of such persons, whose Rights shall become null and void) for shares of Common Stock (or shares of Junior Preferred Stock) at an exchange ratio of one share of Common Stock (or one-thousandth of a share of Junior Preferred Stock) per Right (adjusted in accordance with the Rights Agreement (such amount per Right being hereinafter referred to as the "Exchange Ratio"). The exchange of the Rights by the Board of Directors may be made effective at such time, on such basis and with such conditions as the Board of Directors may establish.

### Amendments

The Rights Agreement may be amended by the Board of Directors in its sole discretion until the time at which any person becomes an Acquiring Person. After such time the Board of Directors may not supplement or amend the Rights Agreement in any manner that would adversely affect the interests of the holders of Rights (other than Rights that have become null and void). In addition, the Board of Directors may at any time prior to the time at which any person becomes an Acquiring Person, amend the Rights Agreement to make the provisions of the Rights Agreement inapplicable to a particular transaction by which a person might otherwise become an Acquiring Person or to otherwise alter the terms and conditions of the Rights Agreement as they may apply with respect to any such transaction.

### Adjustment

The number of outstanding Rights and the number of one one-thousandth of a share of Preferred Stock issuable upon exercise of each Right are subject to adjustment under certain circumstances.

### Preferred Stock

Because of the nature of the shares of Preferred Stock's dividend, liquidation and voting rights, the value of the one one-thousandth of a share of Preferred Stock purchasable upon exercise of each Right should approximate the value of one share of Common Stock.

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### Rights of Holders

Until a Right is exercised, the holder of a Right Certificate will not be entitled to any rights of a stockholder of the Company with respect to securities for which the Rights shall be exercisable, including, without limitation, the right to vote or to receive dividends or other distributions, and will not be entitled to receive any notice of any proceedings of the Company, except as may otherwise be provided in the Rights Agreement. While the distribution of the Rights will not be taxable to shareholders or to the Company, shareholders may, depending upon the circumstances, recognize taxable income in the event that the Rights become exercisable for Units, other securities of the Company, other consideration or for common stock of an acquiring company.

As of December 20, 2011, there were 125,000,000 authorized shares of Common Stock, of which 59,386,542 shares were issued and outstanding and no shares were held by the Company in its treasury. A total of 500,000 shares of Preferred Stock are reserved for issuance upon exercise of the Rights.

### Certain Anti-Takeover Effects

The Rights will not prevent a takeover of the Company. However, the Rights may cause substantial dilution to a person or group that acquires 15% or more of the outstanding shares of Common Stock.

### Further Information

A copy of the Rights Agreement is attached as Exhibit 4.1 to this Current Report on Form 8-K. A copy of the Rights Agreement is available free of charge from the Company. This summary description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, which is hereby incorporated herein by reference.

### **Item 3.03 Material Modification to the Rights of Security Holders.**

Please see the disclosure set forth under Item 1.01, which is incorporated by reference into this Item 3.03.

### **Item 5.03 – Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year**

On December 20, 2011, the Company filed a Certificate of Designation for the Preferred Stock (the “Certificate of Designation”) with the Secretary of State of Delaware. In connection with the adoption of the Certificate of Designation, the Board of Directors of the Company authorized the creation of a Series of 500,000 shares of Junior Participating Preferred Stock. A copy of the Certificate of Designations is attached hereto as Exhibit 3.1 and is incorporated herein by reference.

### **Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

<b>Exhibit No.</b>	<b>Description</b>
3.1	Certificate of Designations of Junior Participating Preferred Stock of Titan Pharmaceuticals, Inc.
4.1	Rights Agreement, dated as of December 20, 2011, between Titan Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company, as Rights Agent
99.1	Press Release dated December 21, 2011

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**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.

Dated: December 21, 2011

TITAN PHARMACEUTICALS, INC.

By: /s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: President

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99.1	Press Release dated December 21, 2011

CERTIFICATE OF DESIGNATIONS  
OF  
JUNIOR PARTICIPATING PREFERRED STOCK  
OF  
TITAN PHARMACEUTICALS, INC.

(Pursuant to Section 151 of the  
General Corporation Law of the State of Delaware)

Titan Pharmaceuticals, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Company"), hereby certifies that pursuant to the authority contained in Article Fourth of its Certificate of Incorporation, as amended and in accordance with the provisions of Section 151 of the General Corporation Law of the State of Delaware, the following resolution was duly adopted by the Board of Directors of the Company at a meeting held on December 19, 2011, which resolution remains in full force and effect on the date hereof:

RESOLVED, that pursuant to the authority vested in the Board of Directors of the Company (hereinafter being referred to as the "Board of Directors" or the "Board") in accordance with the provisions of the Company's Certificate of Incorporation (hereinafter being referred to as the "Certificate of Incorporation"), the Board of Directors hereby creates a series of preferred stock, par value \$0.001 per share, of the Company, to be designated the "Junior Participating Preferred Stock" and hereby adopts the resolution establishing the designations, number of shares, voting powers, preferences and relative, participating, optional and other rights, and the qualifications, restrictions and limitations thereof, of the shares of such series as set forth below:

Section 1. Designation and Amount. The shares of such series shall be designated as "Junior Participating Preferred Stock" (the "Junior Preferred Stock") and the number of shares constituting the Junior Preferred Stock shall be 500,000. Such number of shares may be increased or decreased by resolution of the Board of Directors; provided, that no decrease shall reduce the number of shares of Junior Preferred Stock to a number less than the number of shares then outstanding plus the number of shares reserved for issuance upon the exercise of outstanding options, rights or warrants or upon the conversion of any outstanding securities issued by the Company convertible into Junior Preferred Stock.

Section 2. Dividends and Distributions.

(A) Subject to the rights of the holders of any shares of any series of preferred stock of the Company (the "Preferred Stock") ranking prior and superior to the Junior Preferred Stock with respect to dividends, the holders of shares of Junior Preferred Stock, in preference to the holders of Common Stock, par value \$0.001 per share, of the Company (the "Common Stock") and of any other stock of the Company ranking junior to the Junior Preferred Stock, shall be entitled to

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receive, when, as and if declared by the Board of Directors out of funds legally available therefor, dividends (A) on each date that dividends or other distributions (other than dividends or distributions payable in Common Stock of the Company) are payable on or in respect of Common Stock comprising part of the Reference Package (as defined below), in an amount per whole share of this Series equal to the aggregate amount of dividends or other distributions (other than dividends or distributions payable in Common Stock of the Company) that would be payable on such date to a holder of the Reference Package, and (B) on the last day of March, June, September and December in each year, in an amount per whole share of this Series equal to the excess (if any) of a dollar amount equal to 0.025% of \$1,000.00 over the aggregate dividends paid per whole share of this Series during the three month period ending on such last day. The term "Reference Package" shall initially mean 1,000 shares of Common Stock, provided that in the event the Company shall at any time after December 20, 2011 (the "Rights Agreement Date") declare and pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then and in each such case the Reference Package after such event shall be the Common Stock that a holder of the Reference Package immediately prior to such event would hold thereafter as a result thereof.

(B) The Company shall declare a dividend or distribution on the Junior Preferred Stock as provided in paragraph (A) of this Section immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock); provided that, in the event no dividend or distribution shall have been declared on the Common Stock during the period between any Dividend Payment Date and the next subsequent Dividend Payment Date, a dividend of the excess (if any) of a dollar amount equal to 0.025% of \$1,000.00 over the aggregate dividends paid per whole share of this Series during the three month period ending on such subsequent Dividend Payment Date per share on the Junior Preferred Stock shall nevertheless be payable, when, as and if declared, on such subsequent Dividend Payment Date.

(C) Dividends shall begin to accrue and be cumulative, whether or not earned or declared, on outstanding shares of Junior Preferred Stock from the Dividend Payment Date next preceding the date of issue of such shares, unless the date of issue of such shares is prior to the record date for the first Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Dividend Payment Date or is a date after the record date for the determination of holders of shares of Junior Preferred Stock entitled to receive a quarterly dividend and before such Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Junior Preferred Stock in an amount less than the total amount of such dividends at the time



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accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix a record date for the determination of holders of shares of Junior Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than 60 days prior to the date fixed for the payment thereof.

Section 3. Voting Rights. The holders of shares of Junior Preferred Stock shall have the following voting rights:

(A) Subject to the provision for adjustment hereinafter set forth and except as otherwise provided in the Certificate of Incorporation or required by law, each share of Junior Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters upon which the holders of the Common Stock of the Company are entitled to vote. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Junior Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(B) Except as otherwise provided herein, in the Certificate of Incorporation or in any other Certificate of Designations creating a series of Preferred Stock, and except as otherwise required by law, the holders of shares of Junior Preferred Stock and the holders of shares of Common Stock and any other capital stock of the Company having general voting rights shall vote together as one class on all matters submitted to a vote of stockholders of the Company.

(C) Except as set forth herein, or as otherwise provided by law, holders of Junior Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

(D) If, at the time of any annual meeting of stockholders for the election of directors, the equivalent of six quarterly dividends (whether or not consecutive) payable on any share or shares of Junior Preferred Stock are in default, the number of directors constituting the Board of Directors of the Company shall be increased by two. In addition to voting together with the holders of Common Stock for the election of other directors of the Company, the holders of record of the Junior Preferred Stock, together with the holders of outstanding shares of any one or more other classes or series of capital stock of

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the Company upon which like voting rights have been conferred and are exercisable (voting together as a class) shall be entitled at said meeting of stockholders (and at each subsequent annual meeting of stockholders), unless all dividends in arrears on the Junior Preferred Stock have been paid or declared and set apart for payment prior thereto, to vote for the election of two directors of the Company, the holders of any Junior Preferred Stock being entitled to cast a number of votes per share of Junior Preferred Stock as is specified in paragraph (A) of this Section 3. Each such additional director shall serve until the next annual meeting of stockholders for the election of directors, or until his successor shall be elected and shall qualify, or until his right to hold such office terminates pursuant to the provisions of this Section 3(D). Until the default in payments of all dividends which permitted the election of said directors shall cease to exist, any director who shall have been so elected pursuant to the provisions of this Section 3(D) may be removed at any time, without cause, only by the affirmative vote of a majority of the voting power of the holders of the shares of Junior Preferred Stock together with the holders of outstanding shares of any one or more other classes or series of capital stock of the Company upon which like voting rights have been conferred and are exercisable (voting together as a class) at a special meeting of such holders called for that purpose, and any vacancy thereby created may be filled by the vote of such holders. If and when such default shall cease to exist, the holders of the Junior Preferred Stock shall be divested of the foregoing special voting rights, subject to reversion in the event of each and every subsequent like default in payments of dividends. Upon the termination of the foregoing special voting rights, the terms of office of all persons who may have been elected directors pursuant to said special voting rights shall forthwith terminate, and the number of directors constituting the Board of Directors shall be reduced by two. The voting rights granted by this Section 3(D) shall be in addition to any other voting rights granted to the holders of the Junior Preferred Stock in this Section 3.

Section 4. Certain Restrictions.

(A) Whenever quarterly dividends or other dividends or distributions payable on the shares of Junior Preferred Stock as provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not earned or declared, on shares of Junior Preferred Stock outstanding shall have been paid in full, the Company shall not:

(i) declare or pay dividends, or make any other distributions, on any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Junior Preferred Stock;

(ii) declare or pay dividends, or make any other distributions, on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Junior Preferred Stock, except dividends paid ratably on the shares of Junior Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

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(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Junior Preferred Stock, provided that the Company may at any time redeem, purchase or otherwise acquire shares of any such junior stock in exchange for shares of any stock of the Company ranking junior (as to dividends and upon dissolution, liquidation or winding up) to the Junior Preferred Stock or rights, warrants or options to acquire such junior stock; or

(iv) redeem or purchase or otherwise acquire for consideration any shares of Junior Preferred Stock, or any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Junior Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the Board of Directors) to all holders of such shares upon such terms as the Board of Directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(B) The Company shall not permit any subsidiary of the Company to purchase or otherwise acquire for consideration any shares of stock of the Company unless the Company could, under paragraph (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

Section 5. Reacquired Shares. Any shares of Junior Preferred Stock purchased or otherwise acquired by the Company in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their retirement become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors, subject to any conditions and restrictions on issuance set forth herein.

Section 6. Liquidation, Dissolution or Winding Up. Upon any liquidation, dissolution or winding up of the Company, no distribution shall be made (A) to the holders of the Common Stock or of shares of any other stock of the Company ranking junior, upon liquidation, dissolution or winding up, to the Junior Preferred Stock unless, prior thereto, the holders of shares of Junior Preferred Stock shall have received \$1,000.00 per share, plus an amount equal to accrued and unpaid dividends and distributions thereon, whether or not earned or declared, to the date of such payment, provided that the holders of shares of Junior Preferred Stock shall be entitled to receive an aggregate amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate amount to be distributed per share to holders of shares of Common Stock, or (B) to the holders of shares of stock ranking on a parity

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upon liquidation, dissolution or winding up with the Junior Preferred Stock, except distributions made ratably on the Junior Preferred Stock and all such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up. In the event, however, that there are not sufficient assets available to permit payment in full of the Junior Preferred Stock liquidation preference and the liquidation preferences of all other classes and series of stock of the Company, if any, that rank on a parity with the Junior Preferred Stock in respect thereof, then the assets available for such distribution shall be distributed ratably to the holders of the Junior Preferred Stock and the holders of such parity shares in the proportion to their respective liquidation preferences. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock together with the holders of outstanding shares of any one or more other classes or series of capital stock of the Company upon which like voting rights have been conferred and are exercisable (voting together as a class), or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the aggregate amount to which holders of shares of Junior Preferred Stock were entitled immediately prior to such event under the proviso in clause (A) of the preceding sentence shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Neither the merger or consolidation of the Company into or with another entity nor the merger or consolidation of any other entity into or with the Company (nor the sale of all or substantially all of the assets of the Company) shall be deemed to be a liquidation, dissolution or winding up of the Company within the meaning of this Section 6.

Section 7. Consolidation, Merger, etc. In case the Company shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are converted into, exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each share of Junior Preferred Stock shall at the same time be similarly converted into, exchanged for or changed into an amount per share (subject to the provision for adjustment hereinafter set forth) equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is converted, exchanged or converted. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount set forth in the preceding sentence with respect to the conversion, exchange or change of shares of Junior Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

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Section 8. No Redemption. The shares of Junior Preferred Stock shall not be redeemable from any holder.

Section 9. Rank. The Junior Preferred Stock shall rank, with respect to the payment of dividends and the distribution of assets upon liquidation, dissolution or winding up of the Company, junior to all other series of Preferred Stock and senior to the Common Stock.

Section 10. Amendment. If any proposed amendment to the Certificate of Incorporation (including this Certificate of Designations) would alter, change or repeal any of the preferences, powers or special rights given to the Junior Preferred Stock so as to affect the Junior Preferred Stock adversely, then the holders of shares of the Junior Preferred Stock shall be entitled to vote separately as a class upon such amendment, and the affirmative vote of two-thirds of the outstanding shares of the Junior Preferred Stock, voting separately as a class, shall be necessary for the adoption thereof, in addition to such other vote as may be required by the General Corporation Law of the State of Delaware.

Section 11. Fractional Shares. Junior Preferred Stock may be issued in fractions of a share that shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends, participate in distributions and to have the benefit of all other rights of holders of Junior Preferred Stock.

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IN WITNESS WHEREOF, this Certificate of Designations is executed on behalf of the Company by Sunil Bhonsle, President of the Company on December 20, 2011.

/s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: President

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RIGHTS AGREEMENT  
TITAN PHARMACEUTICALS, INC.  
and  
Continental Stock Transfer & Trust Company,  
as Rights Agent  
Dated December 20, 2011

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## RIGHTS AGREEMENT

Rights Agreement, dated as of December 20, 2011 (as amended, supplemented or otherwise modified from time to time, the "Rights Agreement") between Titan Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Continental Transfer & Trust Company, a New York banking corporation (the "Rights Agent").

### RECITALS

WHEREAS, the Board of Directors of the Company (hereinafter being referred to as the "Board of Directors" or the "Board") has adopted resolutions creating a series of preferred stock, par value \$0.001 per share ("Preferred Stock") designated as "Junior Participating Preferred Stock" and authorized and declared a dividend of one preferred share purchase right (a "Right" and together with all other such rights distributed or issued pursuant hereto, the "Rights") for each share of Common Stock (as defined below) of the Company outstanding as of the close of business (as defined below) on January 3, 2012 (the "Record Date"), each Right initially representing the right to purchase one one-thousandth (subject to adjustment) of a share of Junior Preferred Stock (as defined below), upon the terms and subject to the conditions herein set forth, and the Board of Directors has further authorized and directed the issuance of one Right (subject to adjustment as provided herein) with respect to each share of Common Stock that shall become outstanding between the Record Date and the earlier of the Distribution Date and the Expiration Date (as such terms are hereinafter defined); provided, however, that Rights may be issued with respect to shares of Common Stock that shall become outstanding after the Distribution Date and prior to the Expiration Date in accordance with Section 22.

NOW THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties hereby agree as follows:

Section 1. Certain Definitions. For purposes of this Rights Agreement, the following terms have the meaning indicated:

(a) "Acquiring Person" shall mean any Person who is or becomes the Beneficial Owner of 15% or more of the shares of Common Stock then outstanding, but shall not include (i) any Exempted Entity, or (ii) any Person who, in the good faith judgment of the Board, inadvertently has become an Acquiring Person or otherwise becomes an Acquiring Person (including, without limitation, because (A) such Person was unaware that it was or became an Acquiring Person or (B) such Person was aware that it was an Acquiring Person but had no actual knowledge of the consequences of such fact under this Rights Agreement), so long as such Person enters into, and delivers to the Company as soon as practicable (as determined, in good faith, by the Board), an irrevocable commitment to promptly divest, and thereafter promptly divests (without exercising or retaining any power, including voting, with respect to such securities), sufficient securities of the Company so that such Person ceases to be an "Acquiring Person".

Notwithstanding the foregoing, no Person shall become an Acquiring Person solely as a result of (i) an acquisition of Common Stock by the Company, which, by reducing the number of shares of Common Stock outstanding, increases the percentage of shares of Common Stock

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Beneficially Owned by such Person, individually or together with all other Persons who collectively form a Coordinating Group with such Person to 15% or more shares of Common Stock then outstanding, (ii) the grant of any equity compensation award (including, without limitation, an equity compensation award in the form of options, warrants, rights, restricted stock, or similar securities) by the Company to such Person if such person is a director, officer, employee, or agent of the Company, or any adjustment to the number of shares of Common Stock represented by such equity compensation award pursuant to the terms thereof, or (iii) any unilateral grant of any security by the Company to such Person that was approved in advance by the Board; provided, however, that a Person who or which becomes the Beneficial Owner of shares of Common Stock representing 15% or more of the shares of Common Stock then outstanding by reason of any of the foregoing transactions shall nevertheless be deemed to be an Acquiring Person if such Person thereafter (and while such Person continues to be the Beneficial Owner of 15% or more of the then outstanding shares of Common Stock) becomes the Beneficial Owner of any additional shares of Common Stock, except as a result of (w) a dividend or distribution of shares by the Company made on a pro rata basis to all holders of Common Stock, (x) the issuance of shares by the Company pursuant to a split or subdivision of the outstanding Common Stock, (y) the grant of any equity compensation award (including, without limitation, any equity compensation award in the form of options, warrants, rights, restricted stock, or similar securities) by the Company to such Person if such person is a director, officer, employee, or agent of the Company, or any adjustment to the number of shares of Common Stock represented by such equity compensation award pursuant to the terms thereof, or (z) any unilateral grant of any security by the Company to such Person that was approved in advance by the Board.

(b) "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the Exchange Act Regulations.

(c) A Person shall be deemed the "Beneficial Owner", and to have "Beneficial Ownership" of, and to "Beneficially Own", any securities (i) as to which such Person or any of such Person's Affiliates or Associates is or may be deemed to be the beneficial owner, directly or indirectly, pursuant to Rules 13d-3 and 13d-5 of the Exchange Act Regulations; (ii) as to which such Person or any of such Person's Affiliates or Associates has the right to become the Beneficial Owner (whether such right is exercisable immediately or only after the passage of time or the occurrence of conditions), directly or indirectly, pursuant to any agreement, arrangement or understanding, whether or not in writing (other than customary agreements with and between underwriters and selling group members with respect to a bona fide public offering of securities), or upon the exercise of conversion rights, exchange rights, rights (other than the Rights), warrants or options, or otherwise; (iii) which are Beneficially Owned, directly or indirectly, by any other Person or any of such other Person's Affiliates or Associates with which such first Person or any of such first Person's Affiliates or Associates has any agreement, arrangement or understanding, whether or not in writing, (x) for the purpose of acquiring, holding, voting (except pursuant to a revocable proxy as described in clause (B) of the proviso to this sentence) or disposing of any voting securities of the Company, or (y) to cooperate in obtaining, changing or influencing the control of the Company; and (iv) that such Person or any of such Person's Affiliates or Associates are determined to Constructively Own; provided, however, that a Person shall not be deemed the "Beneficial Owner," or to have "Beneficial Ownership" of, or to "Beneficially Own," any security (A) solely because such

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security has been tendered pursuant to a tender or exchange offer made by such Person or any of such Person's Affiliates or Associates until such tendered security is accepted for payment or exchange, or (B) solely because such Person or any of such Person's Affiliates or Associates has or shares the power to vote or direct the voting of such security pursuant to a revocable proxy or consent given in response to a public proxy or consent solicitation made to more than ten holders of shares of a class of stock of the Company registered under Section 12 of the Exchange Act and pursuant to, and in accordance with, the applicable provisions of the Exchange Act Regulations, except if such power (or the arrangements relating thereto (whether or not in writing)) is then reportable under Item 6 of Schedule 13D under the Exchange Act (or any similar provision of a comparable or successor statement). Notwithstanding the foregoing, (i) nothing in this Section 1(c) shall cause a Person engaged in business as an underwriter of securities to be the "Beneficial Owner" of, or to have "Beneficial Ownership" of, or to "Beneficially Own", any securities acquired through such Person's participation in good faith in a firm commitment underwriting until the expiration of forty days after the date of such acquisition, and then only if such securities continue to be owned by such Person at such expiration of forty days; (ii) no Person who is an officer, director, or employee of an Exempted Entity shall be deemed, solely by reason of such Person's status or authority as such, to be the "Beneficial Owner" of, to have "Beneficial Ownership" of or to "Beneficially Own" any securities that are "Beneficially Owned" (as defined in this Section 1(c)), including, without limitation, in a fiduciary capacity, by an Exempted Entity or by any other such officer, director or employee of an Exempted Entity; (iii) a Person shall not be deemed the "Beneficial Owner" of, to have "Beneficial Ownership" of or to "Beneficially Own", shares of Common Stock (or securities convertible into, exchangeable into or exercisable for Common Stock) held by such Person in trust accounts, managed accounts and the like, or otherwise held in a fiduciary capacity, that are beneficially owned by third Persons. For purposes of this Agreement, in determining the percentage of the outstanding shares of Common Stock with respect to which a Person is the Beneficial Owner, all shares as to which such Person is deemed the Beneficial Owner shall be deemed to be outstanding.

(d) "Book Entry" shall mean an uncertificated book entry for shares of Common Stock.

(e) "Business Day" shall mean any day other than a Saturday, a Sunday, or a day on which banking institutions in the State of New York, or the State in which the principal office of the Rights Agent is located, are authorized or obligated by law or executive order to close.

(f) "close of business" on any given date shall mean 5:00 P.M., New York, New York time, on such date; provided, however, that if such date is not a Business Day it shall mean 5:00 P.M., New York, New York time, on the next succeeding Business Day.

(g) "Common Stock" when used with reference to the Company shall mean the common stock, par value \$0.001 per share, of the Company, except that, "Common Stock" when used with reference to any Person other than the Company shall mean the capital stock (or, in the case of an unincorporated entity, the equivalent equity interest) with the greatest voting power of such other Person or, if such other Person is a subsidiary of another Person, the Person or Persons which ultimately control such first-mentioned Person.

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(h) A Person shall be deemed to “Constructively Own” shares of Common Stock in respect of which such Person has a Synthetic Long Position, calculated in the manner set forth below. The number of shares of Common Stock in respect of a Synthetic Long Position that shall be deemed to be Constructively Owned is the notional or other number of shares of Common Stock in respect of such Synthetic Long Position that is specified in a filing by such Person or any of such Person’s Affiliates or Associates with the SEC or in the documentation evidencing such Synthetic Long Position as the basis upon which the value or settlement amount of such right or derivative, or the opportunity of the holder of such right or derivative to profit or share in any profit, is to be calculated in whole or in part, and in any case (or if no such number of shares of Common Stock is specified in any filing or documentation), as determined by the Board of Directors of the Company in good faith to be the number of shares of Common Stock to which such Synthetic Long Position relates.

(i) “Distribution Date” shall have the meaning set forth in Section 3(a).

(j) “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended and in effect on the date of the Rights Agreement.

(k) “Exchange Act Regulations” shall mean the General Rules and Regulations under the Exchange Act.

(l) “Exempted Entity” shall mean (i) the Company, (ii) any Subsidiary (as defined below) of the Company (in the case of subclauses (i) and (ii) including, without limitation, in its fiduciary capacity), (iii) any employee benefit plan of the Company or of any Subsidiary of the Company, or (iv) any entity or trustee holding (or acting in a fiduciary capacity in respect of) Common Stock for or pursuant to the terms of any such plan or for the purpose of funding any such plan or funding other employee benefits for employees of the Company or of any Subsidiary of the Company.

(m) “Expiration Date” shall mean the earliest of (i) the exchange of all outstanding Rights pursuant to Section 24, (ii) the redemption of all outstanding Rights pursuant to Section 23, and (iii) the close of business on December 20, 2012.

(n) “Junior Preferred Stock” shall mean the Junior Participating Preferred Stock, par value \$0.001 per share, of the Company having the powers, preferences and relative, participating, optional or other rights, and the qualifications, limitations and restrictions set forth in the Certificate of Designations attached to this Rights Agreement as Exhibit A and, to the extent that there are not a sufficient number of shares of Junior Participating Preferred Stock authorized to permit the full exercise of the Rights, any other series of preferred stock of the Company designated for such purpose containing terms substantially similar to the terms of the Junior Participating Preferred Stock.

(o) “OTCBB” shall mean The Over the Counter Bulletin Board.

(p) “Person” shall mean any individual, corporation (including not-for-profit), general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, governmental entity or agency or other entity of any kind or nature.

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(q) “Right” shall have the meaning set forth in the Recitals.

(r) “Rights Agent” shall have the meaning set forth in the Preamble.

(s) “Securities Act” shall mean the Securities Act of 1933, as amended.

(t) “Stock Acquisition Date” shall mean the first date of public announcement (which for purposes of this definition shall include, without limitation, a report filed pursuant to Section 13(d) of the Exchange Act) by the Company or an Acquiring Person that an Acquiring Person has become such.

(u) “Subsidiary” of any Person shall mean any corporation or other entity of which securities or other ownership interests having ordinary voting power sufficient to elect a majority of the board of directors or other persons performing similar functions are beneficially owned, directly or indirectly, by such Person, and any corporation or other entity that is otherwise controlled by such Person.

(v) “Synthetic Long Position” shall mean any option, warrant, convertible security, stock appreciation right, swap agreement or other security, contract right or derivative position, whether or not presently exercisable, that has an exercise or conversion privilege or a settlement payment or mechanism at a price related to the value of Common Stock or a value determined in whole or part with reference to, or derived in whole or in part from, the value of Common Stock and that increases in value as the value of Common Stock increases or that provides to the holder an opportunity, directly or indirectly, to profit or share in any profit derived from any increase in the value of Common Stock, in any case without regard to whether (i) such derivative conveys any voting rights in such securities to such Person or any of such Person’s Affiliates or Associates, (ii) such derivative is required to be, or capable of being, settled through delivery of such securities, or (iii) such Person or any of such Person’s Affiliates or Associates may have entered into other transactions that hedge the economic effect of such derivative. A Synthetic Long Position shall not include any interests, rights, options or other securities set forth in Rule 16a-1(c)(1)-(5) or (7) of the Exchange Act Regulations.

Section 2. Appointment of Rights Agent. The Company hereby appoints Continental Transfer & Trust Company as Rights Agent to act as agent for the Company and the holders of the Rights (who, in accordance with Section 3 hereof, shall prior to the Distribution Date also be the holders of Common Stock) in accordance with the terms and conditions hereof, and the Rights Agent hereby accepts such appointment. The Company may from time to time appoint such co-Rights Agents as it may deem necessary or desirable upon ten (10) days’ prior notice to the Rights Agent. The Rights Agent shall have no duty to supervise, and shall in no event be liable for the acts or omissions of any such co-Rights Agent.

Section 3. Issuance of Right Certificates. (a) Until the close of business on the earlier of (i) the tenth Business Day after the Stock Acquisition Date or (ii) the tenth Business Day (or such later date as may be determined by action of a majority of the Board of Directors before such time as any Person becomes an Acquiring Person and of which later date the Company will give the Rights Agent prompt written notice) after the date that a tender or exchange offer by any Person (other than an Exempted Entity) is first published or sent or given

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within the meaning of Rule 14d-4(a) of the Exchange Act Regulations or any successor rule, the consummation of which would result in any Person becoming an Acquiring Person (including, in the case of both clause (i) and (ii), any such date which is after the date of this Rights Agreement and prior to the issuance of the Rights) (the earlier of such dates referred to in clauses (i) and (ii) being herein referred to as the “Distribution Date”), (x) the Rights will be evidenced (subject to the provisions of Section 3(b) hereof) by the balances indicated in the Book Entry account system of the transfer agent for the Common Stock registered in the names of the holders thereof (which Common Stock will also be deemed to represent certificates for Rights) or, in the case of certificated shares, by the certificates for Common Stock registered in the names of the holders thereof (which certificates for shares of Common Stock shall be deemed also to be certificates for Rights) and not by separate Right Certificates (as defined below), and (y) the Rights will be transferable only in connection with the transfer of the underlying shares of Common Stock, associated with such Right (including a transfer to the Company).

As soon as practicable after the Distribution Date, the Company will prepare and execute, the Rights Agent will countersign, and the Company will send or cause to be sent (and the Rights Agent will, if requested, send) by first-class, insured, postage-prepaid mail, to each record holder of shares of Common Stock as of the close of business on the Distribution Date (other than any Acquiring Person), at the address of such holder shown on the records of the Company, a Right Certificate, in substantially the form of Exhibit B attached hereto (a “Right Certificate”), evidencing one Right (subject to adjustment as provided herein) for each share of Common Stock so held. If an adjustment in the number of Rights per share of Common Stock has been made pursuant to Section 11(i) or Section 11(n) hereof, at the time of distribution of the Right Certificates, the Company may make the necessary and appropriate rounding adjustments (in accordance with Section 14(a) hereof) so that Right Certificates representing only whole numbers of Rights are distributed and cash is paid in lieu of any fractional Rights. As of and after the Distribution Date, the Rights will be evidenced solely by such Rights Certificates.

(b) On the Record Date, or as soon as practicable thereafter, the Company will send a copy of a Summary of Rights to Purchase Shares of Junior Preferred Stock, in substantially the form of Exhibit C attached hereto (the “Summary of Rights”), which may be appended to certificates that represent shares of Common Stock, by first-class, postage-prepaid mail, to each record holder of shares of Common Stock as of the close of business on the Record Date (other than any Acquiring Person), at the address of such holder shown on the records of the Company. With respect to Common Stock outstanding as of the Record Date, until the Distribution Date, the Rights will be evidenced by the balances indicated in the Book Entry account system of the transfer agent for such stock (if applicable), or in the case of certificated shares, by such certificates registered in the names of the holders thereof together with the Summary of Rights attached thereto. Until the Distribution Date (or, if earlier, the Expiration Date), the surrender for transfer of any shares of Common Stock outstanding on the Record Date (whether represented by certificate(s) or evidenced by the balances indicated in the Book Entry account system of the transfer agent for such stock), with or without a copy of the Summary of Rights, shall also constitute the transfer of the Rights associated with the Common Stock represented thereby.

(c) Rights shall be issued in respect of all shares of Common Stock that become outstanding (whether originally issued or delivered from the Company’s treasury) after



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the Record Date but prior to the earlier of the Distribution Date and the Expiration Date, or in certain circumstances provided in Section 22 hereof, after the Distribution Date. Confirmation and account statements sent to holders of Common Stock for Book Entry form or, in the case of certificated shares, certificates representing shares of Common Stock (including, without limitation, upon transfer of outstanding shares of Common Stock, disposition of shares of Common Stock, out of treasury stock or issuance or reissuance of shares of Common Stock, out of authorized but unissued shares) after the Record Date but prior to the earlier of the Distribution Date and the Expiration Date, or in certain circumstances provided in Section 22 hereof, after the Distribution Date shall have impressed on, printed on, written on or otherwise affixed to them the following legend:

“This certificate also evidences and entitles the holder hereof to certain rights as set forth in a Rights Agreement between Titan Pharmaceuticals, Inc. and Continental Transfer & Trust Company, as Rights Agent, dated as of December 20, 2011, as the same may be amended, supplemented or otherwise modified from time to time (the “Rights Agreement”), the terms of which are hereby incorporated herein by reference and a copy of which is on file at the principal executive offices of Titan Pharmaceuticals, Inc. Under certain circumstances, as set forth in the Rights Agreement, such Rights will be evidenced by separate certificates and will no longer be evidenced by this certificate. Titan Pharmaceuticals, Inc. will mail to the holder of this certificate a copy of the Rights Agreement without charge after receipt of a written request therefor. Under certain circumstances, as set forth in the Rights Agreement, Rights owned by or transferred to any Person who is, was or becomes an Acquiring Person (as defined in the Rights Agreement) and certain transferees thereof will become null and void and will no longer be transferable.”

With respect to such certificates containing the foregoing legend, until the earliest of the Distribution Date and the Expiration Date, the Rights associated with the Common Stock, represented by such certificates shall be evidenced by certificates alone and registered holders of Common Stock shall also be registered holders of Rights, and the surrender for transfer of any such certificates, except as otherwise provided herein, shall also constitute the transfer of the Rights associated with such shares of Common Stock. With respect to Common Stock in Book Entry form for which there has been sent a confirmation or account statement containing the foregoing legend, until the earliest of the Distribution Date or the Expiration Date, the Rights associated with the Common Stock shall be evidenced by such Common Stock alone and registered holders of Common Stock shall also be the registered holders of the associated Rights, and the transfer of any such Common Stock shall also constitute the transfer of the Rights associated with such shares of Common Stock. In the event that the Company purchases or otherwise acquires any Common Stock, after the Record Date but prior to the Distribution Date, any Rights associated with such Common Stock, shall be deemed cancelled and retired so that the Company shall not be entitled to exercise any Rights associated with the shares of Common Stock which are no longer outstanding.

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Notwithstanding this paragraph (c), the omission of a legend shall not affect the enforceability of any part of this Rights Agreement or the rights of any holder of the Rights.

Section 4. Form of Right Certificates. The Right Certificates (and the forms of election to purchase shares and of assignment to be printed on the reverse thereof) shall be substantially in the form set forth in Exhibit B attached hereto and may have such marks of identification or designation and such legends, summaries or endorsements printed thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Rights Agreement, or as may be required to comply with any applicable law or with any rule or regulation made pursuant thereto or with any rule or regulation of the OTCBB or of any other stock exchange or automated quotation system on which the Rights may from time to time be listed, or to conform to usage. Subject to the provisions of Sections 11, 13, 22, 23, 24 and 27 hereof, the Right Certificates shall entitle the holders thereof to purchase such number of one one-thousandth of a share of Junior Preferred Stock as shall be set forth therein at the Purchase Price (as determined pursuant to Section 7), but the amount and type of securities purchasable upon the exercise of each Right and the Purchase Price thereof shall be subject to adjustment as provided herein.

Any Right Certificate issued pursuant hereto that represents Rights beneficially owned by: (i) an Acquiring Person, (ii) a transferee of an Acquiring Person that becomes a transferee after the Acquiring Person becomes such, or (iii) a transferee of an Acquiring Person that becomes a transferee prior to or concurrently with the Acquiring Person becoming such and that receives such Rights pursuant to either (A) a transfer (whether or not for consideration) from the Acquiring Person to holders of equity interests in such Acquiring Person or to any Person with whom such Acquiring Person has any continuing written or oral agreement, arrangement, or understanding regarding either the transferred Rights, shares of Common Stock, or the Company, or (B) a transfer that the Board of Directors has determined in good faith to be part of a plan, agreement, arrangement, or understanding, written or otherwise, that has as a primary purpose or effect the avoidance of Section 11(a)(ii) hereof, and subsequent transferees of such Persons shall, upon the written direction of the Board of Directors, contain (to the extent feasible), the following legend:

“The Rights represented by this Rights Certificate are or were beneficially owned by a Person who was or became an Acquiring Person (as such capitalized terms are defined in the Rights Agreement, dated as of December 20, 2011 (the “Rights Agreement”), by and between Titan Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company, as Rights Agent). Accordingly, this Rights Certificate and the Rights represented hereby may become null and void in the circumstances specified in Section 11(a)(ii) of the Rights Agreement.”

Section 5. Countersignature and Registration. (a) The Right Certificates shall be executed on behalf of the Company by the Chief Executive Officer, Chief Financial Officer, any of the Vice Presidents of the Company (each an “Authorized Officer”), either manually or by facsimile signature, shall have affixed thereto the Company’s seal or a facsimile thereof and shall be attested by the Corporate Secretary or an Assistant Secretary of the Company, either manually or by facsimile signature. The Right Certificates shall be countersigned by the Rights Agent, either manually or by facsimile signature, and shall not be

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valid for any purpose unless countersigned. In case any Authorized Officer who shall have signed any Right Certificate shall cease to be an Authorized Officer of the Company before countersignature by the Rights Agent and issuance and delivery by the Company, such Right Certificates, nevertheless, may be countersigned by the Rights Agent and issued and delivered by the Company with the same force and effect as though the Person who signed such Right Certificates had not ceased to be an Authorized Officer of the Company; and any Right Certificate may be signed on behalf of the Company by any Person who, at the actual date of the execution of such Right Certificate, shall be a proper Authorized Officer of the Company to sign such Right Certificate, although at the date of the execution of this Rights Agreement any such Person was not such an Authorized Officer.

(b) Following the Distribution Date, the Rights Agent will keep or cause to be kept, at an office or agency designated for such purpose, books for registration and transfer of the Right Certificates issued hereunder. Such books shall show the names and addresses of the respective holders of the Right Certificates, the number of Rights evidenced on its face by each Right Certificate and the date of each Right Certificate.

Section 6. Transfer, Split Up, Combination and Exchange of Right Certificates; Mutilated, Destroyed, Lost or Stolen Right Certificates. (a) Subject to the provisions of this Rights Agreement, at any time after the close of business on the Distribution Date, and prior to the close of business on the Expiration Date, any Right Certificate or Right Certificates may be transferred, split up, combined or exchanged for another Right Certificate or Right Certificates, entitling the registered holder to purchase a like number of one one-thousandth of a share of Junior Preferred Stock (or, following such time, other securities, cash or assets as the case may be) as the Right Certificate or Right Certificates surrendered then entitled such holder to purchase. Any registered holder desiring to transfer, split up, combine or exchange any Right Certificate or Right Certificates shall make such request in writing delivered to the Rights Agent, and shall surrender the Right Certificate or Right Certificates to be transferred, split up, combined or exchanged at the office or agency of the Rights Agent designated for such purpose. Thereupon the Rights Agent, subject to the provisions of this Rights Agreement, shall countersign and deliver to the Person entitled thereto a Right Certificate or Right Certificates, as the case may be, as so requested. The Company may require payment of a sum sufficient to cover any tax or governmental charge that may be imposed in connection with any transfer, split up, combination or exchange of Right Certificates.

(b) Subject to the provisions of this Rights Agreement, at any time after the Distribution Date and prior to the Expiration Date, upon receipt by the Company and the Rights Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of a Right Certificate, and, in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to them, and, at the Company's request, reimbursement to the Company and the Rights Agent of all reasonable expenses incidental thereto, and upon surrender to the Rights Agent and cancellation of the Right Certificate if mutilated, the Company will make and deliver a new Right Certificate of like tenor to the Rights Agent for delivery to the registered holder in lieu of the Right Certificate so lost, stolen, destroyed or mutilated.

Section 7. Exercise of Rights, Purchase Price; Expiration Date of Rights. (a) Except as otherwise provided herein, the Rights shall become exercisable on the Distribution

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Date, and thereafter the registered holder of any Right Certificate may, subject to Section 11(a)(ii) hereof and except as otherwise provided herein, exercise the Rights evidenced thereby in whole or in part upon surrender of the Right Certificate, with the form of election to purchase on the reverse side thereof duly executed, to the Rights Agent at the office or agency of the Rights Agent designated for such purpose, together with payment of the Purchase Price for each one one-thousandth of a share of Junior Preferred Stock (or other securities, cash or assets, as the case may be) as to which the Rights are exercised, at any time which is both after the Distribution Date and prior to the Expiration Date.

(b) The purchase price (the "Purchase Price") shall be initially \$4.41 for each one one-thousandth of a share of Junior Preferred Stock purchasable upon the exercise of a Right. The Purchase Price and the number of one one-thousandth of a share of Junior Preferred Stock or other securities or property to be acquired upon exercise of a Right shall be subject to adjustment from time to time as provided in Sections 11 and 13 hereof and shall be payable in lawful money of the United States of America in accordance with paragraph (c) of this Section 7.

(c) Except as otherwise provided herein, upon receipt of a Right Certificate representing exercisable Rights, with the form of election to purchase duly executed, accompanied by payment of the aggregate Purchase Price for the number of shares of Junior Preferred Stock to be purchased and an amount equal to any applicable transfer tax required to be paid by the holder of such Right Certificate in accordance with Section 9(e) hereof, by certified check, cashier's check or money order payable to the order of the Rights Agent, the Rights Agent shall thereupon promptly (i) (A) requisition from any transfer agent of the Junior Preferred Stock or make available if the Rights Agent is the transfer agent for the Junior Preferred Stock certificates for the number of shares of Junior Preferred Stock to be purchased (and the Company hereby irrevocably authorizes its transfer agent to comply with all such requests), or (B) requisition from the depositary agent appointed by the Company depositary receipts representing interests in such number of one one-thousandth of a share of Junior Preferred Stock as are to be purchased, in which case certificates for the Junior Preferred Stock represented by such receipts shall be deposited by the transfer agent with the depositary agent (and the Company hereby directs the depositary agent to comply with such request), (ii) when appropriate, requisition from the Company the amount of cash to be paid in lieu of issuance of fractional shares in accordance with Section 14 hereof, (iii) promptly after receipt of such certificates or depositary receipts, cause the same to be delivered to or upon the order of the registered holder of such Right Certificate, registered in such name or names as may be designated by such holder and (iv) when appropriate, after receipt, promptly deliver such cash to or upon the order of the registered holder of such Right Certificate.

(d) Except as otherwise provided herein, in case the registered holder of any Right Certificate shall exercise less than all the Rights evidenced thereby, a new Right Certificate evidencing Rights equivalent to the exercisable Rights remaining unexercised shall be issued by the Rights Agent to the registered holder of such Right Certificate or to his duly authorized assigns, subject to the provisions of Section 6 and 14 hereof.

(e) Notwithstanding anything in this Rights Agreement to the contrary, neither the Rights Agent nor the Company shall be obligated to undertake any action with respect to a registered holder of Rights upon the occurrence of any purported transfer or exercise

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of Rights pursuant to Section 6 hereof or this Section 7 unless such registered holder shall have (i) completed and signed the certificate contained in the form of assignment or election to purchase set forth on the reverse side of the Right Certificate surrendered for such transfer or exercise and (ii) provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) thereof as the Company shall reasonably request.

Section 8. Cancellation and Destruction of Right Certificates. All Right Certificates surrendered for the purpose of exercise, transfer, split up, combination or exchange shall, if surrendered to the Company or to any of its agents, be delivered to the Rights Agent for cancellation or in cancelled form, or, if surrendered to the Rights Agent, shall be cancelled by it, and no Right Certificates shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Rights Agreement. The Company shall deliver to the Rights Agent for cancellation and retirement, and the Rights Agent shall so cancel and retire, any other Right Certificate purchased or acquired by the Company otherwise than upon the exercise thereof. The Rights Agent shall deliver all cancelled Right Certificates to the Company, or shall, at the written request of the Company, destroy or cause to be destroyed such cancelled Right Certificates, and in such case shall deliver a certificate of destruction thereof to the Company.

Section 9. Availability of Shares of Junior Preferred Stock. (a) The Company covenants and agrees that it will cause to be reserved and kept available out of its authorized and unissued shares of Junior Preferred Stock or any shares of Junior Preferred Stock held in its treasury, the number of shares of Junior Preferred Stock that will be sufficient to permit the exercise in full of all outstanding Rights.

(b) So long as the shares of Junior Preferred Stock (and, following the time that a Person becomes an Acquiring Person, shares of Common Stock and other securities) issuable upon the exercise of Rights may be listed or admitted to trading on the OTCBB or listed on any other national securities exchange or quotation system, the Company shall use its best efforts to cause, from and after such time as the Rights become exercisable, all shares reserved for such issuance to be listed or admitted to trading on the OTCBB or listed on any other exchange or quotation system upon official notice of issuance upon such exercise.

(c) From and after such time as the Rights become exercisable, the Company shall use its best efforts, if then necessary to permit the issuance of shares of Junior Preferred Stock (and following the time that a Person first becomes an Acquiring Person, shares of Common Stock and other securities) upon the exercise of Rights, to register and qualify such shares of Junior Preferred Stock (and following the time that a Person first becomes an Acquiring Person, shares of Common Stock and other securities) under the Securities Act and any applicable state securities or "Blue Sky" laws (to the extent exemptions therefrom are not available), cause such registration statement and qualifications to become effective as soon as possible after such filing and keep such registration and qualifications effective until the earlier of (x) the date as of which the Rights are no longer exercisable for such securities and (y) the Expiration Date. The Company may temporarily suspend, for a period of time not to exceed ninety (90) days, the exercisability of the Rights in order to prepare and file a registration statement under the Securities Act and permit it to become effective. Upon any such suspension, the Company shall notify the Rights Agent thereof in writing and shall issue a public announcement stating that the exercisability of the Rights has been temporarily suspended, as

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well as a public announcement at such time as the suspension is no longer in effect. Notwithstanding any provision of this Rights Agreement to the contrary, the Rights shall not be exercisable in any jurisdiction unless the requisite qualification or exemption in such jurisdiction shall have been obtained and until a registration statement under the Securities Act (if required) shall have been declared effective.

(d) The Company covenants and agrees that it will take all such action as may be necessary to ensure that all shares of Junior Preferred Stock (and, following the time that a Person becomes an Acquiring Person, shares of Common Stock and other securities) delivered upon exercise of Rights shall, at the time of delivery of the certificates therefor (subject to payment of the Purchase Price), be duly and validly authorized and issued and fully paid and nonassessable shares.

(e) The Company further covenants and agrees that it will pay when due and payable any and all federal and state transfer taxes and charges which may be payable in respect of the issuance or delivery of the Right Certificates or of any shares of Junior Preferred Stock (or shares of Common Stock or other securities) upon the exercise of Rights. The Company shall not, however, be required to pay any transfer tax or charge which may be payable in respect of any transfer or delivery of Right Certificates to a Person other than, or the issuance or delivery of certificates or depository receipts or entries in the Book Entry account system of the transfer agent for the Junior Preferred Stock (or shares of Common Stock or other securities) in a name other than that of, the registered holder of the Right Certificate evidencing Rights surrendered for exercise or to issue or deliver any certificates or depository receipts or entries in the Book Entry account system of the transfer agent for Junior Preferred Stock (or shares of Common Stock or other securities) upon the exercise of any Rights until any such tax or charge shall have been paid (any such tax or charge being payable by that holder of such Right Certificate at the time of surrender) or until it has been established to the Company's reasonable satisfaction that no such tax or charge is due.

(f) The Company shall use its reasonable best efforts, on or prior to the date that is either (A) as soon as practicable following the first occurrence of an event under Section 11(a)(ii) and a determination by the Company in accordance with Section 11(a)(iii) hereof, if applicable, of the consideration to be delivered by the Company upon exercise of the Rights, or (B) if so required by law, as soon as required following the Distribution Date, to obtain any and all regulatory approvals that may be required with respect to the securities purchasable upon exercise of the Rights. The Company may temporarily suspend, for a period of time not to exceed 90 days after the date set forth in the first sentence of this Section 9(f), the exercise of the Rights in order to permit the Company to obtain the necessary regulatory approvals. Upon any such suspension, the Company shall notify the Rights Agent thereof in writing and issue a public announcement stating that the exercise of the Rights has been temporarily suspended, as well as a public announcement (with written notice thereof to the Rights Agent) at such time as the suspension is no longer in effect stating that the suspension on the exercise of the Rights is no longer in effect. Notwithstanding any provision of this Rights Agreement to the contrary, the Rights shall not be exercisable unless and until all required regulatory approvals have been obtained with respect to the securities purchasable upon exercise of the Rights.

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Section 10. Junior Preferred Stock Record Date. Each Person in whose name any certificate or entry in Book Entry account system of the transfer agent for Junior Preferred Stock (or shares of Common Stock or other securities) is issued upon the exercise of Rights shall for all purposes be deemed to have become the holder of record of the shares of Junior Preferred Stock (or shares of Common Stock or other securities) represented thereby on, and such certificate or entry in the Book Entry account system of the transfer agent shall be dated, the date upon which the Right Certificate evidencing such Rights was duly surrendered and payment of the Purchase Price (and any applicable transfer taxes or charges) was made; provided, however, that if the date of such surrender and payment is a date upon which the Junior Preferred Stock (or shares of Common Stock or other securities) transfer books of the Company are closed, such Person shall be deemed to have become the record holder of such shares on, and such certificate or entry in Book Entry account system of the transfer agent shall be dated, the next succeeding Business Day on which such transfer books are open. Prior to the exercise of the Rights evidenced thereby, the holder of a Right Certificate shall not be entitled to any rights of a stockholder of the Company with respect to securities for which the Rights shall be exercisable, including, without limitation, the right to vote or to receive dividends or other distributions, and shall not be entitled to receive any notice of any proceedings of the Company, except as provided herein.

Section 11. Adjustment of Purchase Price, Number and Kind of Shares and Number of Rights. The Purchase Price, the number of shares of Junior Preferred Stock or other securities or property purchasable upon exercise of each Right and the number of Rights outstanding are subject to adjustment from time to time as provided in this Section 11.

(a)(i) In the event the Company shall at any time after the date of this Rights Agreement (A) declare a dividend on the Junior Preferred Stock payable in shares of Junior Preferred Stock, (B) subdivide the outstanding shares of Junior Preferred Stock, (C) combine the outstanding shares of Junior Preferred Stock into a smaller number of shares of Junior Preferred Stock or (D) issue any shares of its capital stock in a reclassification of the shares of Junior Preferred Stock (including any such reclassification in connection with a consolidation or merger in which the Company is the continuing or surviving corporation), except as otherwise provided in this Section 11(a), the Purchase Price in effect at the time of the record date for such dividend or of the effective date of such subdivision, combination or reclassification, as the case may be, and the number and kind of shares of capital stock issuable upon exercise of a Right, shall be proportionately adjusted so that the holder of any Right exercised after such time shall be entitled to receive the aggregate number and kind of shares of capital stock which, if such Right had been exercised immediately prior to such date and at a time when the Junior Preferred Stock transfer books of the Company were open, the holder would have owned upon such exercise and been entitled to receive by virtue of such dividend, subdivision, combination or reclassification; provided, however, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the shares of capital stock of the Company issuable upon exercise of one Right. If an event occurs that would require an adjustment under both this Section 11(a)(i) and Section 11(a)(ii) hereof, the adjustment provided for in this Section 11(a)(i) shall be in addition to, and shall be made prior to, any adjustment required pursuant to Section 11(a)(ii) hereof.

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(ii) Subject to Sections 24 and 13 of this Rights Agreement and except as otherwise provided in this Section 11(a)(ii) and Section 11(a)(iii), in the event that any Person becomes an Acquiring Person, each holder of a Right shall thereafter have the right to receive, upon exercise thereof, at a price equal to the then-current Purchase Price, in accordance with the terms of this Rights Agreement and in lieu of shares of Junior Preferred Stock, such number of shares of Common Stock (or at the option of the Company, such number of one one-thousandth of a share of Junior Preferred Stock) as shall equal the result obtained by (x) multiplying the then-current Purchase Price by the number of one one-thousandth of a share of Junior Preferred Stock for which a Right is then exercisable and dividing that product by (y) 50% of the then-current per share market price of the Company's Common Stock (determined pursuant to Section 11(d) hereof) on the date of the occurrence of such event; provided, however, that the Purchase Price (as so adjusted) and the number of shares of Common Stock so receivable upon exercise of a Right shall thereafter be subject to further adjustment as appropriate in accordance with Section 11(f) hereof. Notwithstanding anything in this Rights Agreement to the contrary, however, from and after the time (the "invalidation time") when any Person first becomes an Acquiring Person, any Rights that are beneficially owned by (x) any Acquiring Person, (y) a transferee of any Acquiring Person who becomes a transferee after the invalidation time or (z) a transferee of any Acquiring Person who became a transferee prior to or concurrently with the invalidation time pursuant to either (I) a transfer from the Acquiring Person to holders of its equity securities or to any Person with whom it has any continuing agreement, arrangement or understanding, written or otherwise, regarding the transferred Rights, shares of Common Stock or the Company or (II) a transfer that the Board of Directors has determined in good faith is part of a plan, arrangement or understanding, written or otherwise, which has the purpose or effect of avoiding the provisions of this paragraph, and subsequent transferees of such Persons, shall be void without any further action and any holder of such Rights shall thereafter have no rights whatsoever with respect to such Rights under any provision of this Rights Agreement. The Company shall use all reasonable efforts to ensure that the provisions of this Section 11(a)(ii) are complied with, but shall have no liability to any holder of Right Certificates or other Person as a result of its determination, or failure to make any determinations, with respect to an Acquiring Person or transferees hereunder. From and after the invalidation time, no Right Certificate shall be issued pursuant to Section 3 or Section 6 hereof that represents Rights that are or have become void pursuant to the provisions of this paragraph, and any Right Certificate delivered to the Rights Agent that represents Rights that are or have become void pursuant to the provisions of this paragraph shall be cancelled. From and after the occurrence of an event specified in Section 13(a) hereof, any Rights that theretofore have not been exercised pursuant to this Section 11(a)(ii) shall thereafter be exercisable only in accordance with Section 13 and not pursuant to this Section 11(a)(ii).

(iii) The Company may at its option substitute for a share of Common Stock issuable upon the exercise of Rights in accordance with the foregoing subparagraph (ii) such number or fractions of shares of Junior Preferred Stock having an aggregate current market value equal to the current per share market price of a share of Common Stock. In the event that there shall be an insufficient number of Common Stock authorized but unissued (and unreserved) to permit the exercise in full of the Rights in accordance with the foregoing subparagraph (ii), the Board of Directors shall, with respect to such deficiency, to the extent permitted by applicable law and any material agreements then in effect to which the Company is a party (A) determine the excess of (x) the value of the shares of Common Stock issuable upon the exercise of a Right in accordance with



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the foregoing subparagraph (ii) (the “Current Value”) over (y) the then-current Purchase Price multiplied by the number of one one-thousandth of shares of Junior Preferred Stock for which a Right was exercisable immediately prior to the time that the Acquiring Person became such (such excess, the “Spread”), and (B) with respect to each Right (other than Rights which have become void pursuant to Section 11(a)(ii)), make adequate provision to substitute for the shares of Common Stock issuable in accordance with subparagraph (ii) upon exercise of the Right and payment of the applicable Purchase Price, (1) cash, (2) a reduction in such Purchase Price, (3) shares of Junior Preferred Stock or other equity securities of the Company (including, without limitation, shares or fractions of shares of preferred stock which, by virtue of having dividend, voting and liquidation rights substantially comparable to those of the shares of Common Stock, are deemed in good faith by the Board of Directors to have substantially the same value as the shares of Common Stock (such shares of preferred stock and shares or fractions of shares of preferred stock are hereinafter referred to as “Common Stock equivalents”), (4) debt securities of the Company, (5) other assets or (6) any combination of the foregoing, having a value which, when added to the value of the shares of Common Stock actually issued upon exercise of such Right, shall have an aggregate value equal to the Current Value (less the amount of any reduction in such Purchase Price), where such aggregate value has been determined by the Board of Directors upon the advice of a nationally recognized investment banking firm selected in good faith by the Board of Directors; provided, however, if the Company shall not make adequate provision to deliver value pursuant to clause (B) above within thirty (30) days following the date that the Acquiring Person became such (the “Section 11(a)(ii) Trigger Date”), then the Company shall be obligated to deliver, to the extent permitted by applicable law and any material agreements then in effect to which the Company is a party, upon the surrender for exercise of a Right and without requiring payment of the Purchase Price, shares of Common Stock (to the extent available), and then, if necessary, such number or fractions of shares of Junior Preferred Stock (to the extent available) and then, if necessary, cash, which shares and/or cash have an aggregate value equal to the Spread. If within the thirty (30) day period referred to above, the Board of Directors shall determine in good faith that it is likely that sufficient additional shares of Common Stock could be authorized for issuance upon exercise in full of the Rights, then, if the Board of Directors so elects, such thirty (30) day period may be extended to the extent necessary, but not more than ninety (90) days after the Section 11(a)(ii) Trigger Date, in order that the Company may seek stockholder approval for the authorization of such additional shares (such thirty (30) day period, as it may be extended, is hereinafter called the “Substitution Period”). To the extent that the Company determines that some action need be taken pursuant to the second and/or third sentence of this Section 11(a)(iii), the Company (x) shall provide, subject to Section 11(a)(ii) hereof and the last sentence of this Section 11(a)(iii) hereof, that such action shall apply uniformly to all outstanding Rights and (y) may suspend the exercisability of the Rights until the expiration of the Substitution Period in order to seek any authorization of additional shares and/or to decide the appropriate form of

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distribution to be made pursuant to such second sentence and to determine the value thereof. In the event of any such suspension, the Company shall issue a public announcement stating that the exercisability of the Rights has been temporarily suspended, as well as a public announcement at such time as the suspension is no longer in effect. For purposes of this Section 11(a)(iii), the value of the shares of Common Stock shall be the current per share market price (as determined pursuant to Section 11(d)(i)) on the Section 11(a)(ii) Trigger Date and the per share or fractional value of any Common Stock equivalent shall be deemed to equal the current per share market price of the Common Stock. The Board of Directors of the Company may, but shall not be required to, establish procedures to allocate the right to receive shares of Common Stock upon the exercise of the Rights among holders of Rights pursuant to this Section 11(a)(iii).

(b) In case the Company shall fix a record date for the issuance of rights, options or warrants to all holders of Junior Preferred Stock entitling them (for a period expiring within 45 calendar days after such record date) to subscribe for or purchase Junior Preferred Stock (or shares having similar rights, privileges and preferences as the Junior Preferred Stock (“equivalent preferred shares”)) or securities convertible into Junior Preferred Stock or equivalent preferred shares at a price per share of Junior Preferred Stock or equivalent preferred shares (or having a conversion price per share, if a security convertible into shares of Junior Preferred Stock or equivalent preferred shares) less than the then-current per share market price of the Junior Preferred Stock (determined pursuant to Section 11(d) hereof) on such record date, the Purchase Price to be in effect after such record date shall be determined by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, the numerator of which shall be the number of shares of Junior Preferred Stock and equivalent preferred shares outstanding on such record date plus the number of shares of Junior Preferred Stock and equivalent preferred shares which the aggregate offering price of the total number of such shares so to be offered (and/or the aggregate initial conversion price of the convertible securities so to be offered) would purchase at such current market price, and the denominator of which shall be the number of shares of Junior Preferred Stock and equivalent preferred shares outstanding on such record date plus the number of additional shares of Junior Preferred Stock and/or equivalent preferred shares to be offered for subscription or purchase (or into which the convertible securities so to be offered are initially convertible); provided, however, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the shares of capital stock of the Company issuable upon exercise of one Right. In case such subscription price may be paid in a consideration part or all of which shall be in a form other than cash, the value of such consideration shall be as determined in good faith by the Board of Directors of the Company, whose determination shall be described in a statement filed with the Rights Agent and which shall be binding on the Rights Agent. Shares of Junior Preferred Stock and equivalent preferred shares owned by or held for the account of the Company shall not be deemed outstanding for the purpose of any such computation. Such adjustment shall be made successively whenever such a record date is fixed; and in the event that such rights, options or warrants are not so issued, the Purchase Price shall be adjusted to be the Purchase Price which would then be in effect if such record date had not been fixed.

(c) In case the Company shall fix a record date for the making of a distribution to all holders of the Junior Preferred Stock (including any such distribution made in

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connection with a consolidation or merger in which the Company is the continuing or surviving corporation) of evidences of indebtedness or assets (other than a regular quarterly cash dividend or a dividend payable in Junior Preferred Stock) or subscription rights or warrants (excluding those referred to in Section 11(b) hereof), the Purchase Price to be in effect after such record date shall be determined by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, the numerator of which shall be the then-current per share market price of the Junior Preferred Stock (determined pursuant to Section 11(d) hereof) on such record date, less the fair market value (as determined in good faith by the Board of Directors of the Company whose determination shall be described in a statement filed with the Rights Agent and shall be binding on the Rights Agent) of the portion of such assets or evidences of indebtedness so to be distributed or of such subscription rights or warrants applicable to one share of Junior Preferred Stock, and the denominator of which shall be such current per share market price of the Junior Preferred Stock; provided, however, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the shares of capital stock of the Company to be issued upon exercise of one Right. Such adjustments shall be made successively whenever such a record date is fixed; and in the event that such distribution is not so made, the Purchase Price shall again be adjusted to be the Purchase Price which would then be in effect if such record date had not been fixed.

(d)(i) Except as otherwise provided herein, for the purpose of any computation hereunder, the “current per share market price” of any security (a “Security” for the purpose of this Section 11(d)(i)) on any date shall be deemed to be the average of the daily closing prices per share of such Security for the 30 consecutive Trading Days (as such term is hereinafter defined) immediately prior to such date; provided, however, that in the event that the current per share market price of the Security is determined during a period following the announcement by the issuer of such Security of (A) a dividend or distribution on such Security payable in shares of such Security or securities convertible into such shares, or (B) any subdivision, combination or reclassification of such Security, and prior to the expiration of 30 Trading Days after the ex-dividend date for such dividend or distribution, or the record date for such subdivision, combination or reclassification, then, and in each such case, the current per share market price shall be appropriately adjusted to reflect the current market price per share equivalent of such Security. The closing price for each day shall be the last sale price, regular way, or, in case no such sale takes place on such day, the average of the closing bid and asked prices, regular way, in either case as reported by (w) the principal consolidated transaction reporting system with respect to securities listed or admitted to trading on the OTCBB or, (x) if the Security is not listed or admitted to trading on the OTCBBQ, as reported in the principal consolidated transaction reporting system with respect to securities listed on the principal national securities exchange on which the Security is listed or admitted to trading or, if (y) the Security is not listed or admitted to trading on any national securities exchange, the last quoted price or, if not so quoted, the average of the high bid and low asked prices in the over-the-counter market, as reported by the OTCBB or such other system then in use, or, (z) if on any such date the Security is not quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the Security selected by the Board of Directors of the Company. The term “Trading Day” shall mean a day on which the principal national securities exchange on which the Security is listed or admitted to trading is open for the transaction of business or, if the Security is not listed or admitted to trading on any national securities exchange, a Business Day.

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(ii) For the purpose of any computation hereunder, if the Junior Preferred Stock is publicly traded, the “current per share market price” of the Junior Preferred Stock shall be determined in accordance with the method set forth in Section 11(d)(i). If the Junior Preferred Stock is not publicly traded but the Common Stock is publicly traded, the “current per share market price” of the Junior Preferred Stock shall be conclusively deemed to be the current per share market price of the Common Stock, as determined pursuant to Section 11(d)(i), multiplied by one hundred (appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof). If neither the Common Stock nor the Junior Preferred Stock is publicly traded, “current per share market price” shall mean the fair value per share as determined in good faith by the Board of Directors of the Company, whose determination shall be described in a statement filed with the Rights Agent and shall be binding on the Rights Agent.

(e) No adjustment in the Purchase Price shall be required unless such adjustment would require an increase or decrease of at least 1% in the Purchase Price; provided, however, that any adjustments not required to be made by reason of this Section 11(e) shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 11 shall be made to the nearest cent or to the nearest one ten-thousandth of a share of Junior Preferred Stock or share of Common Stock or other share or security as the case may be. Notwithstanding the first sentence of this Section 11(e), any adjustment required by this Section 11 shall be made no later than the earlier of (i) two years from the date of the transaction which requires such adjustment or (ii) the Expiration Date.

(f) If, as a result of an adjustment made pursuant to Section 11(a) or Section 13 hereof, the holder of any Right thereafter exercised shall become entitled to receive any shares of capital stock of the Company other than the Junior Preferred Stock, thereafter the Purchase Price and the number of such other shares so receivable upon exercise of a Right shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Junior Preferred Stock contained in Sections 11(a), 11(b), 11(c), 11(e), 11(h), 11(i) and 11(m) and the provisions of Sections 7, 9, 10, 13 and 14 hereof with respect to the Junior Preferred Stock shall apply on like terms to any such other shares.

(g) All Rights originally issued by the Company subsequent to any adjustment made to the Purchase Price hereunder shall evidence the right to purchase, at the adjusted Purchase Price, the number of one one-thousandth of a share of Junior Preferred Stock purchasable from time to time hereunder upon exercise of the Rights, all subject to further adjustment as provided herein.

(h) Unless the Company shall have exercised its election as provided in Section 11(i), upon each adjustment of the Purchase Price as a result of the calculations made in Section 11(b) and (c), each Right outstanding immediately prior to the making of such adjustment shall thereafter evidence the right to purchase, at the adjusted Purchase Price, that number of one one-thousandth of a share of Junior Preferred Stock (calculated to the nearest one - thousandth of a share of Junior Preferred Stock) obtained by (i) multiplying (x) the number of one one-thousandth of a share of Junior Preferred Stock purchasable upon the exercise of a Right

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immediately prior to such adjustment by (y) the Purchase Price in effect immediately prior to such adjustment of the Purchase Price and (ii) dividing the product so obtained by the Purchase Price in effect immediately after such adjustment of the Purchase Price.

(i) The Company may elect on or after the date of any adjustment of the Purchase Price pursuant to Sections 11(b) or 11(c) hereof to adjust the number of Rights, in substitution for any adjustment in the number of one one-thousandth of a share of Junior Preferred Stock purchasable upon the exercise of a Right. Each of the Rights outstanding after such adjustment of the number of Rights shall be exercisable for the number of one one-thousandth of a share of Junior Preferred Stock for which a Right was exercisable immediately prior to such adjustment. Each Right held of record prior to such adjustment of the number of Rights shall become that number of Rights (calculated to the nearest one ten-thousandth) obtained by dividing the Purchase Price in effect immediately prior to adjustment of the Purchase Price by the Purchase Price in effect immediately after adjustment of the Purchase Price. The Company shall make a public announcement, and notify the Rights Agent in writing of its election to adjust the number of Rights, indicating the record date for the adjustment, and, if known at the time, the amount of the adjustment to be made. This record date may be the date on which the Purchase Price is adjusted or any day thereafter, but, if the Right Certificates have been issued, shall be at least 10 days later than the date of the public announcement. If Right Certificates have been issued, upon each adjustment of the number of Rights pursuant to this Section 11(i), the Company may, as promptly as practicable, cause to be distributed to holders of record of Right Certificates on such record date Right Certificates evidencing, subject to Section 14 hereof, the additional Rights to which such holders shall be entitled as a result of such adjustment, or, at the option of the Company, shall cause to be distributed to such holders of record in substitution and replacement for the Right Certificates held by such holders prior to the date of adjustment, and upon surrender thereof, if required by the Company, new Right Certificates evidencing all the Rights to which such holders shall be entitled as a result of such adjustment. Right Certificates so to be distributed shall be issued, executed and countersigned in the manner provided for herein and shall be registered in the names of the holders of record of Right Certificates on the record date specified in the public announcement.

(j) Irrespective of any adjustment or change in the Purchase Price or the number of one one-thousandth of a share of Junior Preferred Stock issuable upon the exercise of the Rights, the Right Certificates theretofore and thereafter issued may continue to express the Purchase Price and the number of one one-thousandth of a share of Junior Preferred Stock which were expressed in the initial Right Certificates issued hereunder.

(k) Before taking any action that would cause an adjustment reducing the Purchase Price below the then par value, if any, of the shares of Junior Preferred Stock or other shares of capital stock issuable upon exercise of the Rights, the Company shall take any corporate action which may, in the opinion of its counsel, be necessary in order that the Company may validly and legally issue fully paid and nonassessable shares of Junior Preferred Stock or other such shares at such adjusted Purchase Price.

(l) In any case in which this Section 11 shall require that an adjustment in the Purchase Price be made effective as of a record date for a specified event, the Company may elect to defer (and shall notify the Rights Agent in writing of any such election) until the

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occurrence of such event the issuing to the holder of any Right exercised after such record date the Junior Preferred Stock, Common Stock or other capital stock or securities of the Company, if any, issuable upon such exercise over and above the Junior Preferred Stock, Common Stock or other capital stock or securities of the Company, if any, issuable upon such exercise on the basis of the Purchase Price in effect prior to such adjustment; provided, however, that the Company shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares upon the occurrence of the event requiring such adjustment.

(m) Notwithstanding anything in this Section 11 to the contrary, the Company shall be entitled to make such adjustments in the Purchase Price, in addition to those adjustments expressly required by this Section 11, as and to the extent that it in its sole discretion shall determine to be advisable in order that any consolidation or subdivision of the Junior Preferred Stock, issuance (wholly for cash) of any shares of Junior Preferred Stock at less than the current market price, issuance (wholly for cash) of Junior Preferred Stock or securities which by their terms are convertible into or exchangeable for Junior Preferred Stock, dividends on Junior Preferred Stock payable in shares of Junior Preferred Stock or issuance of rights, options or warrants referred to hereinabove in Section 11(b), hereafter made by the Company to holders of its Junior Preferred Stock shall not be taxable to such stockholders.

(n) Notwithstanding anything in this Rights Agreement to the contrary, in the event that at any time after the date of this Rights Agreement and prior to the Distribution Date, the Company shall (i) declare and pay any dividend on the shares of any class or series of Common Stock payable in shares of Common Stock or (ii) effect a subdivision, combination or consolidation of the shares of any class or series of Common Stock (by reclassification or otherwise than by payment of a dividend payable in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in any such case, the number of Rights associated with each share of Common Stock then outstanding, or issued or delivered thereafter, shall be proportionately adjusted so that the number of Rights thereafter associated with each share of Common Stock following any such event shall equal the result obtained by multiplying the number of Rights associated with each share of Common Stock immediately prior to such event by a fraction the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to the occurrence of the event and the denominator of which shall be the total number of shares of Common Stock outstanding immediately following the occurrence of such event.

(o) So long as any rights shall then be outstanding (other than Rights that have become null and void pursuant to Section 11(a)(ii) hereof), the Company agrees that, after the earlier of the Distribution Date or the Stock Acquisition Date, it will not, except as permitted by Sections 23, 24 or 27 hereof, take (or permit any Subsidiary to take) any action if at the time such action is taken it is reasonably foreseeable that such action will diminish substantially or eliminate the benefits intended to be afforded by the Rights.

Section 12. Certificate of Adjusted Purchase Price or Number of Shares. Whenever an adjustment is made as provided in Section 11 or 13 hereof, the Company shall promptly (a) prepare a certificate setting forth such adjustment, and a brief statement of the facts accounting for such adjustment, (b) file with the Rights Agent and with each transfer agent for

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the Common Stock or the Junior Preferred Stock a copy of such certificate and (c) mail a brief summary thereof to each holder of a Right Certificate in accordance with Section 25 hereof (if so required under Section 25 hereof). The Rights Agent shall be fully protected in relying on any such certificate and on any adjustment therein contained and shall not be deemed to have knowledge of any such adjustment unless and until it shall have received such certificate.

Section 13. Consolidation, Merger or Sale or Transfer of Assets or Earnings Power. (a) In the event, directly or indirectly, at any time after any Person has become an Acquiring Person, (i) the Company shall merge with and into any other Person, (ii) any Person shall consolidate with the Company, or any Person shall merge with and into the Company and the Company shall be the continuing or surviving corporation of such merger and, in connection with such merger, all or part of the Common Stock shall be changed into or exchanged for stock or other securities of any other Person (or of the Company) or cash or any other property, or (iii) the Company shall sell or otherwise transfer (or one or more of its Subsidiaries shall sell or otherwise transfer), in one or more transactions, assets or earning power aggregating to 50% or more of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any other Person (other than the Company or one or more of its wholly-owned Subsidiaries), then, and in each such case, proper provision shall be made so that:

(A) each holder of record of a Right (other than Rights which have become void pursuant to Section 11(a)(ii)) shall thereafter have the right to receive, upon the exercise thereof at a price equal to the then-current Purchase Price multiplied by the number of one one-thousandth of a share of Junior Preferred Stock for which a Right was exercisable (whether or not such Right was then exercisable) immediately prior to the time that any Person first became an Acquiring Person (each as subsequently adjusted thereafter pursuant to Section 11(a)(i), 11(b), 11(c), 11(e), 11(f), 11(h), 11(i) and 11(m)), in accordance with the terms of this Rights Agreement and in lieu of Junior Preferred Stock, such number of validly issued, fully paid and non-assessable and freely tradeable shares of Common Stock of the Principal Party (as defined below) not subject to any liens, encumbrances, rights of first refusal or other adverse claims, as shall be equal to the result obtained by (1) multiplying the then-current Purchase Price by the number of one one-thousandth of a share of Junior Preferred Stock for which a Right was exercisable immediately prior to the time that any Person first became an Acquiring Person (as subsequently adjusted thereafter pursuant to Section 11(a)(i), 11(b), 11(c), 11(e), 11(f), 11(h), 11(i) and 11(m)) and (2) dividing that product by 50% of the then-current per share market price of the Common Stock of such Principal Party (determined pursuant to Section 11(d)(i) hereof) on the date of consummation of such consolidation, merger, sale or transfer; provided that the Purchase Price and the number of shares of Common Stock of such Principal Party issuable upon exercise of each Right shall be further adjusted as provided in Section 11(f) of this Rights Agreement to reflect any events occurring in respect of such Principal Party after the date of such consolidation, merger, sale or transfer;

(B) such Principal Party shall thereafter be liable for, and shall assume, by virtue of such consolidation, merger, sale or transfer, all the obligations and duties of the Company pursuant to this Rights Agreement;

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(C) the term “Company” as used herein shall thereafter be deemed to refer to such Principal Party; and

(D) such Principal Party shall take such steps (including, but not limited to, the reservation of a sufficient number of its shares of its Common Stock) in connection with such consummation of any such transaction as may be necessary to assure that the provisions hereof shall thereafter be applicable, as nearly as reasonably may be, in relation to the shares of its Common Stock thereafter deliverable upon the exercise of the Rights; provided that, upon the subsequent occurrence of any consolidation, merger, sale or transfer of assets or other extraordinary transaction in respect of such Principal Party, each holder of a Right shall thereupon be entitled to receive, upon exercise of a Right and payment of the Purchase Price as provided in this Section 13(a), such cash, shares, rights, warrants and other property which such holder would have been entitled to receive had such holder, at the time of such transaction, owned the Common Stock of the Principal Party receivable upon the exercise of a Right pursuant to this Section 13(a), and such Principal Party shall take such steps (including, but not limited to, reservation of shares of stock) as may be necessary to permit the subsequent exercise of the Rights in accordance with the terms hereof for such cash, shares, rights, warrants and other property.

(b) “Principal Party” shall mean:

(i) in the case of any transaction described in clauses (i) or (ii) of the first sentence of Section 13(a) hereof: (A) the Person that is the issuer of the securities into which the shares of Common Stock are converted in such merger or consolidation, or, if there is more than one such issuer, the issuer of the shares of Common Stock of which have the greatest aggregate market value of shares outstanding, or (B) if no securities are so issued, (x) the Person that is the other party to the merger, if such Person survives said merger, or, if there is more than one such Person, the Person the shares of Common Stock of which have the greatest aggregate market value of shares outstanding or (y) if the Person that is the other party to the merger does not survive the merger, the Person that does survive the merger (including the Company if it survives) or (z) the Person resulting from the consolidation; and

(ii) in the case of any transaction described in clause (iii) of the first sentence in Section 13(a) hereof, the Person that is the party receiving the greatest portion of the assets or earning power transferred pursuant to such transaction or transactions, or, if each Person that is a party to such transaction or transactions receives the same portion of the assets or earning power so transferred or if the Person receiving the greatest portion of the assets or earning power cannot be determined, whichever of such Persons is the issuer of Common Stock having the greatest aggregate market value of shares outstanding;

provided, however, that in any such case described in the foregoing clause (b)(i) or (b)(ii), if the Common Stock of such Person is not at such time or has not been continuously over the preceding 12-month period registered under Section 12 of the Exchange Act, then (1) if such Person is a direct or indirect Subsidiary of another Person the Common Stock of which is and has been so registered, the term “Principal Party” shall refer to such other Person, or (2) if such



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Person is a Subsidiary, directly or indirectly, of more than one Person, and the Common Stock of all of such persons have been so registered, the term "Principal Party" shall refer to whichever of such Persons is the issuer of Common Stock having the greatest aggregate market value of shares outstanding, or (3) if such Person is owned, directly or indirectly, by a joint venture formed by two or more Persons that are not owned, directly or indirectly, by the same Person, the rules set forth in clauses (1) and (2) above shall apply to each of the owners having an interest in the venture as if the Person owned by the joint venture was a Subsidiary of both or all of such joint venturers, and the Principal Party in each such case shall bear the obligations set forth in this Section 13 in the same ratio as its interest in such Person bears to the total of such interests.

(c) The Company shall not consummate any consolidation, merger, sale or transfer referred to in Section 13(a) hereof unless prior thereto the Company and the Principal Party involved therein shall have executed and delivered to the Rights Agent an agreement confirming that the requirements of Sections 13(a) and (b) hereof shall promptly be performed in accordance with their terms and that such consolidation, merger, sale or transfer of assets shall not result in a default by the Principal Party under this Rights Agreement as the same shall have been assumed by the Principal Party pursuant to Sections 13(a) and (b) hereof and providing that, as soon as practicable after executing such agreement pursuant to this Section 13, the Principal Party will:

(i) prepare and file a registration statement under the Securities Act, if necessary, with respect to the Rights and the securities purchasable upon exercise of the Rights on an appropriate form, use its best efforts to cause such registration statement to become effective as soon as practicable after such filing and use its best efforts to cause such registration statement to remain effective (with a prospectus at all times meeting the requirements of the Securities Act) until the Expiration Date, and similarly comply with applicable state securities laws;

(ii) use its best efforts, if the Common Stock of the Principal Party shall be listed or admitted to trading on the Nasdaq Stock Market, LLC ("Nasdaq") or on another national securities exchange, to list or admit to trading (or continue the listing of) the Rights and the securities purchasable upon exercise of the Rights on the Nasdaq or such securities exchange, or, if the Common Stock of the Principal Party shall not be listed or admitted to trading on the Nasdaq or a national securities exchange, to cause the Rights and the securities receivable upon exercise of the Rights to be reported by such other system then in use;

(iii) deliver to holders of the Rights historical financial statements for the Principal Party which comply in all respects with the requirements for registration on Form 10 (or any successor form) under the Exchange Act; and

(iv) obtain waivers of any rights of first refusal or preemptive rights in respect of the Common Stock of the Principal Party subject to purchase upon exercise of outstanding Rights.

(d) In case the Principal Party has a provision in any of its authorized securities or in its certificate of incorporation or by-laws or other instrument governing its

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affairs, which provision would have the effect of (i) causing such Principal Party to issue (other than to holders of Rights pursuant to this Section 13), in connection with, or as a consequence of, the consummation of a transaction referred to in this Section 13, shares of Common Stock or Common Stock equivalents of such Principal Party at less than the then-current market price per share thereof (determined pursuant to Section 11(d) hereof) or securities exercisable for, or convertible into, Common Stock or Common Stock equivalents of such Principal Party at less than such then-current market price, or (ii) providing for any special payment, tax or similar provision in connection with the issuance of the Common Stock of such Principal Party pursuant to the provisions of Section 13, then, in such event, the Company hereby agrees with each holder of Rights that it shall not consummate any such transaction unless prior thereto the Company and such Principal Party shall have executed and delivered to the Rights Agent a supplemental agreement providing that the provision in question of such Principal Party shall have been canceled, waived or amended, or that the authorized securities shall be redeemed, so that the applicable provision will have no effect in connection with, or as a consequence of, the consummation of the proposed transaction.

(e) The Company covenants and agrees that it shall not, at any time after a Person first becomes an Acquiring Person enter into any transaction of the type contemplated by Sections 13(a)(i)-(iii) hereof if (x) at the time of or immediately after such consolidation, merger, sale, transfer or other transaction there are any rights, warrants or other instruments or securities outstanding or agreements in effect which would substantially diminish or otherwise eliminate the benefits intended to be afforded by the Rights, (y) prior to, simultaneously with or immediately after such consolidation, merger, sale, transfer or other transaction, the stockholders of the Person who constitutes, or would constitute, the Principal Party for purposes of Section 13(b) hereof shall have received a distribution of Rights previously owned by such Person or any of its Affiliates or Associates or (z) the form or nature of organization of the Principal Party would preclude or limit the exercisability of the Rights.

(f) The provisions of this Section 13 shall similarly apply to successive mergers or consolidations or sales or other transfers. In the event that a consolidation, merger, sale or transfer shall occur at any time after the occurrence of an event under Section 11(a)(ii), the Rights that have not theretofore been exercised shall thereafter become exercisable in the manner described in Section 13(a).

Section 14. Fractional Rights and Fractional Shares. (a) The Company shall not be required to issue fractions of Rights (except prior to the Distribution Date in accordance with Section 11(n) hereof) or to distribute Right Certificates which evidence fractional Rights. In lieu of such fractional Rights, there shall be paid to the registered holders of the Right Certificates with regard to which such fractional Rights would otherwise be issuable, an amount in cash equal to the same fraction of the current market value of a whole Right. For the purposes of this Section 14(a), the current market value of a whole Right shall be the closing price of the Rights for the Trading Day immediately prior to the date on which such fractional Rights would have been otherwise issuable. The closing price for any day shall be the last sale price, regular way, or, in case no such sale takes place on such day, the average of the closing bid and asked prices, regular way, in either case as reported (x) in the principal consolidated transaction reporting system with respect to securities listed on the principal national securities exchange on which the Rights are listed or admitted to trading or, (y) if the Rights are not listed or admitted to

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trading on any national securities exchange, the last quoted price or, if not so quoted, the average of the high bid and low asked prices in the over-the-counter market, as reported by the OTCBB or such other system then in use or, (z) if on any such date the Rights are not quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the Rights selected by the Board of Directors of the Company. If on any such date no such market maker is making a market in the Rights, the fair value of the Rights on such date as determined in good faith by the Board of Directors of the Company shall be used.

(b) The Company shall not be required to issue fractions of shares of Junior Preferred Stock (other than fractions which are integral multiples of one one-thousandth of a share of Junior Preferred Stock) upon exercise of the Rights or to distribute certificates which evidence fractional shares of Junior Preferred Stock (other than fractions which are integral multiples of one one-thousandth of a share of Junior Preferred Stock). Interests in fractions of Junior Preferred Stock in integral multiples of one one-thousandth of a share of Junior Preferred Stock may, at the election of the Company, be evidenced by depositary receipts, pursuant to an appropriate agreement between the Company and a depositary selected by it; provided, that such agreement shall provide that the holders of such depositary receipts shall have all the rights, privileges and preferences to which they are entitled as beneficial owners of the Junior Preferred Stock represented by such depositary receipts. In lieu of fractional shares of Junior Preferred Stock that are not integral multiples of one one-thousandth of a share of Junior Preferred Stock, the Company shall pay to the registered holders of Right Certificates at the time such Rights are exercised for shares of Junior Preferred Stock as herein provided an amount in cash equal to the same fraction of the current market value of one share of Junior Preferred Stock. For the purposes of this Section 14(b), the current market value of a share of Junior Preferred Stock shall be the closing price of a share of Junior Preferred Stock (as determined pursuant to Section 11(d)(i) hereof) for the Trading Day immediately prior to the date of such exercise.

(c) The Company shall not be required to issue fractions of shares of Common Stock or to distribute certificates which evidence fractional shares of Common Stock or make any entries in the Book Entry account system of the transfer agent that evidence such fractional shares of Common Stock upon the exercise or exchange of Rights. In lieu of such fractional shares of Common Stock, the Company shall pay to the registered holders of the Right Certificates at the time such Rights are exercised or exchanged for shares of Common Stock as herein provided an amount in cash equal to the same fraction of the current market value of a whole share of Common Stock (as determined in accordance with Section 11(d)(i) hereof) for the Trading Day immediately prior to the date of such exercise or exchange.

(d) The holder of a Right by the acceptance of the Right expressly waives the right to receive any fractional Rights or any fractional shares upon exercise or exchange of a Right (except as provided above).

Section 15. Rights of Action. All rights of action in respect of this Rights Agreement, excepting the rights of action given to the Rights Agent under Section 18 hereof, are vested in the respective registered holders of the Right Certificates (and, prior to the Distribution Date, the registered holders of the Common Stock); and any registered holder of any Right Certificate (or, prior to the Distribution Date, of the Common Stock), without the consent of the

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Rights Agent or of the holder of any other Right Certificate (or, prior to the Distribution Date, of the Common Stock), on such holder's own behalf and for such holder's own benefit, may enforce, and may institute and maintain any suit, action or proceeding against the Company to enforce, or otherwise act in respect of, such holder's right to exercise the Rights evidenced by such Right Certificate (or, prior to the Distribution Date, such Common Stock) in the manner provided in such Right Certificate and in this Rights Agreement. Without limiting the foregoing or any remedies available to the holders of Rights, it is specifically acknowledged that the holders of Rights would not have an adequate remedy at law for any breach of this Rights Agreement and will be entitled to specific performance of the obligations under, and injunctive relief against actual or threatened violations of the obligations of any Person subject to, this Rights Agreement.

Section 16. Agreement of Right Holders. Every holder of a Right, by accepting the same, consents and agrees with the Company and the Rights Agent and with every other holder of a Right that:

(i) prior to the Distribution Date, the Rights will be evidenced by the balances indicated in the Book Entry account system of the transfer agent for the Common Stock registered in the names of the holders of Common Stock (which Common Stock shall also be deemed to represent certificates for Rights) or, in the case of certificated shares, the certificates for the Common Stock registered in the names of the holders of the Common Stock which certificates for shares of Common Stock shall also constitute certificates for Rights) and each Right will be transferable only in connection with the transfer of the Common Stock;

(ii) after the Distribution Date, the Right Certificates are transferable only on the registry books of the Rights Agent if surrendered at the office or agency of the Rights Agent designated for such purpose, duly endorsed or accompanied by a proper instrument of transfer;

(iii) the Company and the Rights Agent may deem and treat the Person in whose name the Right Certificate (or, prior to the Distribution Date, the associate balance indicated in the Book Entry account system of the transfer agent for the Common Stock or, in the case of certificated shares, by the associated certificate) is registered as the absolute owner thereof and of the Rights evidenced thereby (notwithstanding any notations of ownership or writing on the Right Certificates or the associated balance indicated in the Book Entry account system of the transfer agent for the Common Stock or, in the case of certificated shares, by the associated certificate made by anyone other than the Company or the Rights Agent) for all purposes whatsoever, and neither the Company nor the Rights Agent, subject to Section 7(e) hereof, shall be affected by any notice to the contrary; and

(iv) notwithstanding anything in this Rights Agreement to the contrary, neither the Company nor the Rights Agent shall have any liability to any holder of a Right or any other Person as a result of its inability to perform any of its obligations under this Rights Agreement by reason of any preliminary or permanent injunction or other order, decree, judgment, or ruling issued by a court of competent jurisdiction or by

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a governmental, regulatory, or administrative agency or commission, or any statute, rule, regulation, or executive order promulgated or enacted by any governmental authority, prohibiting or otherwise restraining performance of such obligation; provided, however, the Company must use its best efforts to have any such order, decree, judgment, or ruling lifted or otherwise overturned as promptly as practicable.

Section 17. Right Certificate Holder Not Deemed a Stockholder. No holder, as such, of any Right Certificate shall be entitled to vote, receive dividends or be deemed for any purpose the holder of the Junior Preferred Stock or any other securities of the Company which may at any time be issuable on the exercise or exchange of the Rights represented thereby, nor shall anything contained herein or in any Right Certificate be construed to confer upon the holder of any Right Certificate, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, or to receive notice of meetings or other actions affecting stockholders (except as provided in this Rights Agreement), or to receive dividends or subscription rights, or otherwise, until the Rights evidenced by such Right Certificate shall have been exercised or exchanged in accordance with the provisions hereof.

Section 18. Concerning the Rights Agent.

(a) The Company agrees to pay to the Rights Agent reasonable compensation for all services rendered by it hereunder and, from time to time, on demand of the Rights Agent, its reasonable expenses and counsel fees and other disbursements incurred in the administration and execution of this Rights Agreement and the exercise and performance of its duties hereunder. The Company also agrees to indemnify the Rights Agent for, and to hold it harmless against, any loss, liability or expense, incurred without gross negligence, bad faith or willful misconduct on the part of the Rights Agent, for anything done or omitted by the Rights Agent in connection with the acceptance and administration of this Rights Agreement, including the costs and expenses of defending against any claim of liability arising therefrom, directly or indirectly.

(b) The Rights Agent shall be protected and shall incur no liability for, or in respect of any action taken, suffered or omitted by it in connection with, its administration of this Rights Agreement in reliance upon any Right Certificate or certificate for the Junior Preferred Stock or Common Stock or any balance indicated in the Book Entry account system of the transfer agent or for other capital stock securities of the Company, instrument of assignment or transfer, power of attorney, endorsement, affidavit, letter, notice, direction, consent, certificate, statement, or other paper or document reasonably believed by it to be genuine and to be signed, executed and, where necessary, verified or acknowledged, by the proper Person or Persons, or otherwise upon the advice of counsel as set forth in Section 20 hereof.

(c) The provisions of this Section 18 and Section 20 below shall survive the termination of this Rights Agreement, the exercise or expiration of the Rights, and the resignation, replacement, or removal of the Rights Agent.

Section 19. Merger or Consolidation or Change of Name of Rights Agent. (a) Any corporation into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or any corporation resulting from any merger or

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consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any corporation succeeding to the stock transfer or corporate trust powers of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Rights Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto; provided, that such corporation would be eligible for appointment as a successor Rights Agent under the provisions of Section 21 hereof. In case at the time such successor Rights Agent shall succeed to the agency created by this Rights Agreement, any of the Right Certificates shall have been countersigned but not delivered, such successor Rights Agent may adopt the countersignature of the predecessor Rights Agent and deliver such Right Certificates so countersigned; and in case at that time any of the Right Certificates shall not have been countersigned, any successor Rights Agent may countersign such Right Certificates either in the name of the predecessor Rights Agent or in the name of such successor Rights Agent; and in all such cases such Right Certificates shall have the full force provided in the Right Certificates and in this Rights Agreement.

(b) In case at any time the name of the Rights Agent shall be changed and at such time any of the Right Certificates shall have been countersigned but not delivered the Rights Agent may adopt the countersignature under its prior name and deliver Right Certificates so countersigned; and in case at that time any of the Right Certificates shall not have been countersigned, the Rights Agent may countersign such Right Certificates either in its prior name or in its changed name and in all such cases such Right Certificates shall have the full force provided in the Right Certificates and in this Rights Agreement.

Section 20. Duties of Rights Agent. The Rights Agent undertakes the duties and obligations imposed by this Rights Agreement upon the following terms and conditions, by all of which the Company and the holders of Right Certificates, by their acceptance thereof, shall be bound:

(a) The Rights Agent may consult with legal counsel (who may be legal counsel for the Company), and the opinion of such counsel shall be full and complete authorization and protection to the Rights Agent as to any action taken or omitted by it in accordance with such opinion.

(b) Whenever in the performance of its duties under this Rights Agreement the Rights Agent shall deem it necessary or desirable that any fact or matter be proved or established by the Company prior to taking or suffering any action hereunder, such fact or matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a certificate signed by any Authorized Officer and delivered to the Rights Agent; and such certificate shall be full authorization to the Rights Agent for any action taken or suffered by it under the provisions of this Rights Agreement in reliance upon such certificate.

(c) The Rights Agent shall be liable hereunder to the Company and any other Person only for its own gross negligence, bad faith or willful misconduct.

(d) The Rights Agent shall not be liable for or by reason of any of the statements of fact or recitals contained in this Rights Agreement or in the Right Certificates (except its countersignature thereof) or be required to verify the same, but all such statements and recitals are and shall be deemed to have been made by the Company only.

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(e) The Rights Agent shall not be under any responsibility in respect of the validity of this Rights Agreement or the execution and delivery hereof (except the due execution hereof by the Rights Agent) or in respect of the validity or execution of any Right Certificate (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Rights Agreement or in any Right Certificate; nor shall it be responsible for any change in the exercisability of the Rights (including the Rights becoming void pursuant to Section 11(a)(ii) hereof) or any adjustment in the terms of the Rights (including the manner, method or amount thereof) provided for in Sections 3, 11, 13, 23 and 24, or the ascertaining of the existence of facts that would require any such change or adjustment (except with respect to the exercise of Rights evidenced by Right Certificates after receipt of a certificate furnished pursuant to Section 12, describing such change or adjustment); nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Junior Preferred Stock or other securities to be issued pursuant to this Rights Agreement or any Right Certificate or as to whether any shares of Junior Preferred Stock or other securities will, when issued, be validly authorized and issued, fully paid and nonassessable.

(f) The Company agrees that it will perform, execute, acknowledge and deliver or cause to be performed, executed, acknowledged and delivered all such further and other acts, instruments and assurances as may reasonably be required by the Rights Agent for the carrying out or performing by the Rights Agent of the provisions of this Rights Agreement.

(g) The Rights Agent is hereby authorized and directed to accept instructions with respect to the performance of its duties hereunder from any person reasonably believed by the Rights Agent to be one of the Authorized Officers, and to apply to such Authorized Officers for advice or instructions in connection with its duties, and it shall not be liable for any action taken or suffered by it in good faith in accordance with instructions of any such Authorized Officer or for any delay in acting while waiting for those instructions. Any application by the Rights Agent for written instructions from the Company may, at the option of the Rights Agent, set forth in writing any action proposed to be taken or omitted by the Rights Agent under this Rights Agreement and the date on and/or after which such action shall be taken or such omission shall be effective. The Rights Agent shall not be liable for any action taken by, or omission of, the Rights Agent in accordance with a proposal included in any such application on or after the date specified in such application (which date shall not be less than five Business Days after the date any Authorized Officer of the Company actually receives such application, unless any such Authorized Officer shall have consented in writing to an earlier date) unless, prior to taking any such action (or the effective date in the case of an omission), the Rights Agent shall have received written instructions in response to such application specifying the action to be taken or omitted.

(h) The Rights Agent and any stockholder, director, officer or employee of the Rights Agent may buy, sell or deal in any of the Rights or other securities of the Company or become pecuniarily interested in any transaction in which the Company may be interested, or contract with or lend money to the Company or otherwise act as fully and freely as though it were not Rights Agent under this Rights Agreement. Nothing herein shall preclude the Rights Agent from acting in any other capacity for the Company or for any other legal entity.

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(i) The Rights Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorneys or agents, and the Rights Agent shall not be answerable or accountable for any act, default, neglect or misconduct of any such attorneys or agents or for any loss to the Company resulting from any such act, default, neglect or misconduct, provided reasonable care was exercised in the selection and continued employment thereof.

(j) If, with respect to any Right Certificate surrendered to the Rights Agent for exercise or transfer, the certificate contained in the form of assignment or the form of election to purchase set forth on the reverse thereof, as the case may be, has not been completed to certify the holder is not an Acquiring Person (or an Affiliate or Associate thereof) or a transferee thereof, the Rights Agent shall not take any further action with respect to such requested exercise or transfer without first consulting with the Company.

(k) No provision of this Agreement shall require the Rights Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of its rights hereunder if the Rights Agent shall have reasonable grounds for believing that repayment of such funds or adequate indemnification against such risk or liability is not reasonably assured to it.

Section 21. Change of Rights Agent. The Rights Agent or any successor Rights Agent may resign and be discharged from its duties under this Rights Agreement upon 30 days' notice in writing mailed to the Company and to each transfer agent of the Common Stock or the Junior Preferred Stock by registered or certified mail, and, following the Distribution Date, to the holders of the Right Certificates by first-class mail. The Company may remove the Rights Agent or any successor Rights Agent upon 30 days' notice in writing, mailed to the Rights Agent or successor Rights Agent, as the case may be, and to each transfer agent of the Common Stock or the Junior Preferred Stock by registered or certified mail, and, following the Distribution Date, to the holders of the Right Certificates by first-class mail. If the Rights Agent shall resign or be removed or shall otherwise become incapable of acting, the Company shall appoint a successor to the Rights Agent. If the Company shall fail to make such appointment within a period of 30 days after giving notice of such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Rights Agent or by the holder of a Right Certificate (who shall, with such notice, submit his Right Certificate for inspection by the Company), then the registered holder of any Right Certificate may apply to any court of competent jurisdiction for the appointment of a new Rights Agent. Any successor Rights Agent, whether appointed by the Company or by such a court, shall be (A) a corporation organized and doing business under the laws of the United States or any State thereof, which is authorized under such laws to exercise corporate trust or stock transfer powers and is subject to supervision or examination by federal or state authority and which has at the time of its appointment as Rights Agent a combined capital and surplus of at least \$100 million or (B) an affiliate of a corporation described in clause (A) of this sentence. After appointment, the successor Rights Agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Rights Agent without further act or deed; but the predecessor Rights Agent



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shall deliver and transfer to the successor Rights Agent any property at the time held by it hereunder, and execute and deliver any further assurance, conveyance, act or deed necessary for the purpose. Not later than the effective date of any such appointment the Company shall file notice thereof in writing with the predecessor Rights Agent and each transfer agent of the Common Stock or the Junior Preferred Stock, and, following the Distribution Date, mail a notice thereof in writing to the registered holders of the Right Certificates. Failure to give any notice provided for in this Section 21, however, or any defect therein, shall not affect the legality or validity of the resignation or removal of the Rights Agent or the appointment of the successor Rights Agent, as the case may be.

Section 22. Issuance of New Right Certificates. Notwithstanding any of the provisions of this Rights Agreement or of the Rights to the contrary, the Company may, at its option, issue new Right Certificates evidencing Rights in such forms as may be approved by its Board of Directors to reflect any adjustment or change in the Purchase Price and the number or kind or class of shares or other securities or property purchasable under the Right Certificates made in accordance with the provisions of this Rights Agreement. In addition, in connection with the issuance or sale of Common Stock following the Distribution Date and prior to the Expiration Date, the Company may with respect to shares of Common Stock so issued or sold pursuant to (i) the exercise of stock options, (ii) under any employee plan or arrangement, (iii) the exercise, conversion or exchange of securities, notes or debentures issued by the Company or (iv) a contractual obligation of the Company, in each case existing prior to the Distribution Date, issue Right Certificates representing the appropriate number of Rights in connection with such issuance or sale.

Section 23. Redemption.

(a) The Board of Directors of the Company may, at any time prior to such time as any Person first becomes an Acquiring Person, redeem all but not less than all the then-outstanding Rights at a redemption price of \$0.0001 per Right, appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (the "Redemption Price"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board of Directors in its sole discretion may establish. The Company may, at its option, pay the Redemption Price in cash, shares of Common Stock (based on the current market price of the Common Stock at the time of the election by the Board of Directors to redeem the Rights as determined pursuant to Section 11(d)(i) hereof) or any other form of consideration deemed appropriate by the Board of Directors.

(b) Immediately upon the action of the Board of Directors ordering the redemption of the Rights pursuant to paragraph (a) of this Section 23 (or at such later time as the Board of Directors may establish for the effectiveness of such redemption), and without any further action and without any notice, the right to exercise the Rights will terminate and the only right thereafter of the holders of Rights shall be to receive the Redemption Price. The Company shall promptly give (i) written notice to the Rights Agent of any such redemption, and (ii) public notice of any such redemption; provided, however, that the failure to give, or any defect in, any such notice shall not affect the validity of such redemption. Within 10 days after such action of the Board of Directors ordering the redemption of the Rights (or such later time as the Board of Directors may establish for the effectiveness of such redemption), the Company shall mail a

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notice of redemption to all the holders of the then-outstanding Rights at their last addresses as they appear upon the registry books of the Rights Agent or, prior to the Distribution Date, on the registry books of the transfer agent for the Common Stock. Any notice which is mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each such notice of redemption shall state the method by which the payment of the Redemption Price will be made.

Section 24. Exchange. (a) The Board of Directors of the Company may, at its option, at any time after any Person first becomes an Acquiring Person, exchange all or part of the then-outstanding and exercisable Rights (which shall not include Rights that have become void pursuant to the provisions of Section 11(a)(ii) hereof) for shares of Common Stock (or shares of Junior Preferred Stock) at an exchange ratio of one share of Common Stock (or one-thousandth of a share of Junior Preferred Stock) per Right, appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (such amount per Right being hereinafter referred to as the "Exchange Ratio"). Notwithstanding the foregoing, the Board of Directors shall not be empowered to effect such exchange at any time after an Acquiring Person becomes the Beneficial Owner of shares of Common Stock aggregating 50% or more of the shares of Common Stock then outstanding. From and after the occurrence of an event specified in Section 13(a) hereof, any Rights that theretofore have not been exchanged pursuant to this Section 24(a) shall thereafter be exercisable only in accordance with Section 13 and may not be exchanged pursuant to this Section 24(a). The exchange of the Rights by the Board of Directors may be made effective at such time, on such basis and with such conditions as the Board of Directors in its sole discretion may establish. Following the action of the Board of Directors ordering the exchange of any Rights pursuant to this Section 24, the Company may implement such procedures as it deems appropriate, in its sole discretion, for the purpose of ensuring that the Common Stock (or such other consideration) issuable upon an exchange pursuant to this Section 24 is not received by holders of Rights that have become null and void pursuant to Section 11(a)(ii). Before effecting an exchange pursuant to this Section 24, the Board of Directors may direct the Company to enter into a Trust Agreement in such form and with such terms as the Board of Directors shall then approve (the "Trust Agreement"). If the Board of Directors so directs, the Company shall enter into the Trust Agreement and shall issue to the trust created by such agreement (the "Trust") all or a portion (as designated by the Board of Directors) of the shares of Common Stock (or shares of Junior Preferred Stock) issuable pursuant to the exchange, and all holders of Rights entitled to receive such shares pursuant to the exchange shall be entitled to receive such shares (and any dividends paid or distributions made thereon after the date on which such shares are deposited in the Trust) only from the Trust and solely upon compliance with the relevant terms and provisions of the Trust Agreement and this Rights Agreement. Prior to effecting an exchange and registering shares of Common Stock (or shares of Junior Preferred Stock) in any Person's name, including any nominee or transferee of a Person, the Company may require (or cause the trustee of the Trust to require), as a condition thereof, that any holder of Rights provide evidence, including, without limitation, the identity of the Beneficial Owners thereof (or former Beneficial Owners thereof) as the Company shall reasonably request in order to determine if such Rights are null and void. If any Person shall fail to comply with such request, the Company shall be entitled conclusively to deem the Rights formerly held by such Person to be null and void pursuant to Section 11(a)(ii) and not transferable or exercisable or exchangeable in connection herewith. Any shares of Common Stock or shares of Junior Preferred Stock issued at the direction of the Board in connection

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herewith shall be validly issued, fully paid and nonassessable shares of Common Stock or shares of Junior Preferred Stock (as the case may be), and the Company shall be deemed to have received as consideration for such issuance a benefit having a value that is at least equal to the aggregate par value of the shares so issued.

(b) Immediately upon the effectiveness of the action of the Board of Directors of the Company ordering the exchange of any Rights pursuant to paragraph (a) of this Section 24 and without any further action and without any notice, the right to exercise such Rights shall terminate and the only right thereafter of a holder of such Rights shall be to receive that number of shares of Common Stock equal to the number of such Rights held by such holder multiplied by the Exchange Ratio. The Company shall promptly give (i) written notice to the Rights Agent of any such exchange and (ii) public notice of any such exchange; provided, however, that the failure to give, or any defect in, such notice shall not affect the validity of such exchange. The Company shall promptly mail a notice of any such exchange to all of the holders of the Rights so exchanged at their last addresses as they appear upon the registry books of the Rights Agent. Any notice which is mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each such notice of exchange will state the method by which the exchange of the shares of Common Stock for Rights will be effected and, in the event of any partial exchange, the number of Rights which will be exchanged. Any partial exchange shall be effected pro rata based on the number of Rights (other than Rights which have become void pursuant to the provisions of Section 11(a)(ii) hereof) held by each holder of Rights.

(c) The Company may at its option substitute and, in the event that there shall not be sufficient shares of Common Stock issued but not outstanding or authorized but unissued (and unreserved) to permit an exchange of Rights as contemplated in accordance with this Section 24, the Company shall substitute to the extent of such insufficiency, for each share of Common Stock that would otherwise be issuable upon exchange of a Right, a number of shares of Junior Preferred Stock or fraction thereof (or equivalent preferred shares as such term is defined in Section 11(b)) such that the current per share market price (determined pursuant to Section 11(d) hereof) of one share of Junior Preferred Stock (or equivalent preferred share) multiplied by such number or fraction is equal to the current per share market price of one share of Common Stock (determined pursuant to Section 11(d) hereof) as of the date of such exchange.

Section 25. Notice of Certain Events. (a) In case the Company shall at any time after the earlier of the Distribution Date or the Stock Acquisition Date propose (i) to pay any dividend payable in stock of any class to the holders of its Junior Preferred Stock or to make any other distribution to the holders of its Junior Preferred Stock (other than a regular quarterly cash dividend), (ii) to offer to the holders of its Junior Preferred Stock rights or warrants to subscribe for or to purchase any additional shares of Junior Preferred Stock or shares of stock of any class or any other securities, rights or options, (iii) to effect any reclassification of its Junior Preferred Stock (other than a reclassification involving only the subdivision or combination of outstanding Junior Preferred Stock), (iv) to effect the liquidation, dissolution or winding up of the Company, or (v) to declare or pay any dividend on the shares of any class or series of Common Stock payable in the shares of any class or series of Common Stock or to effect a subdivision, combination or consolidation of the shares of any class or series of Common Stock (by reclassification or otherwise than by payment of dividends in Common Stock), then, in each such case, the Company shall give to each holder of a Rights Certificate, to the extent feasible,

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and to the Rights Agent, in accordance with Section 26 hereof, a notice of such proposed action, which shall specify the record date for the purposes of such stock dividend, or distribution or offering of rights or warrants, or the date on which such liquidation, dissolution, reclassification, subdivision, combination, consolidation or winding up is to take place and the date of participation therein by the holders of the Common Stock and/or Junior Preferred Stock, if any such date is to be fixed, and such notice shall be so given in the case of any action covered by clause (i) or (ii) above at least 10 days prior to the record date for determining holders of the Junior Preferred Stock for purposes of such action, and in the case of any such other action, at least 10 days prior to the date of the taking of such proposed action or the date of participation therein by the holders of the Common Stock and/or Junior Preferred Stock, whichever shall be the earlier.

(b) In case any event described in Section 11(a)(ii) or Section 13 shall occur then, in any such case, (i) the Company shall as soon as practicable thereafter give to each holder of a Right Certificate (or if occurring prior to the Distribution Date, the holders of the Common Stock) in accordance with Section 26 hereof, to the extent feasible, and to the Rights Agent in accordance with Section 26 hereof, a written notice of the occurrence of such event, which notice shall describe such event and the consequences of such event to holders of Rights under Section 11(a)(ii) and Section 13 hereof; and (ii) with respect to any event described in Section 11(a)(ii), all references in the preceding Section 25(a) to Junior Preferred Stock shall be deemed to refer, if appropriate, to any other securities that may be acquired upon exercise of a Right.

Section 26. Notices. Notices or demands authorized by this Rights Agreement to be given or made by the Rights Agent or by the holder of any Right Certificate to or on the Company shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Rights Agent) as follows:

Titan Pharmaceuticals, Inc.  
400 Oyster Pond Blvd., Suite 505  
South San Francisco, CA 94080  
Attention: Sunil Bhonsle, President

Subject to the provisions of Section 21 hereof, any notice or demand authorized by this Rights Agreement to be given or made by the Company or by the holder of any Right Certificate to or on the Rights Agent shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Company) as follows:

Continental Stock Transfer & Trust Company  
17 Battery Place, 8th Floor  
New York, NY 10004  
Attention: Compliance Department

Notices or demands authorized by this Rights Agreement to be given or made by the Company or the Rights Agent to the holder of any Right Certificate shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed to such holder at the address of such holder as shown on the registry books of the Company.

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Section 27. Supplements and Amendments. Except as otherwise provided in this Section 27, the Company, by action of the Board of Directors, may from time to time and in its sole and absolute discretion, and the Rights Agent shall if the Company so directs, supplement or amend any provision of this Rights Agreement in any respect without the approval of any holders of Rights, including, without limitation, in order to (a) cure any ambiguity, (b) correct or supplement any provision contained herein that may be defective or inconsistent with any other provisions herein, (c) shorten or lengthen any time period hereunder, (d) otherwise change, amend, or supplement any provisions hereunder in any manner that the Company may deem necessary or desirable; provided, however, that from and after such time as any Person becomes an Acquiring Person, this Rights Agreement shall not be supplemented or amended in any manner that would adversely affect the interests of the holders of Rights (other than Rights that have become null and void pursuant to Section 11(a)(ii) hereof) as such or cause this Rights Agreement to become amendable other than in accordance with this Section 27. Without limiting the foregoing, the Company, by action of the Board of Directors thereof, may at any time before any Person becomes an Acquiring Person amend this Rights Agreement to make the provisions of this Rights Agreement inapplicable to a particular transaction by which a Person might otherwise become an Acquiring Person or to otherwise alter the terms and conditions of this Rights Agreement as they may apply with respect to any such transaction. Upon the delivery of a certificate from an appropriate officer of the Company that states that the proposed supplement or amendment is in compliance with the terms of this Section 27, the Rights Agent shall execute such supplement or amendment.

Section 28. Successors. All the covenants and provisions of this Rights Agreement by or for the benefit of the Company or the Rights Agent shall bind and inure to the benefit of their respective successors and assigns hereunder.

Section 29. Benefits of this Rights Agreement. Nothing in this Rights Agreement shall be construed to give to any Person other than the Company, the Rights Agent and the registered holders of the Right Certificates (and, prior to the Distribution Date, the Common Stock) any legal or equitable right, remedy or claim under this Rights Agreement; but this Rights Agreement shall be for the sole and exclusive benefit of the Company, the Rights Agent and the registered holders of the Right Certificates (and, prior to the Distribution Date, the Common Stock).

Section 30. Determinations and Actions by the Board of Directors. The Board of Directors of the Company shall have the exclusive power and authority to administer this Rights Agreement and to exercise the rights and powers specifically granted to the Board of Directors of the Company or to the Company, or as may be necessary or advisable in the administration of this Rights Agreement, including, without limitation, the right and power to (i) interpret the provisions of this Rights Agreement and (ii) make all determinations deemed necessary or advisable for the administration of this Rights Agreement (including, without limitation, a determination to redeem or not redeem the Rights or to amend this Rights Agreement). All such actions, calculations, interpretations and determinations that are done or made by the Board of Directors of the Company in good faith, shall be final, conclusive and binding on the Company, the Rights Agent, the holders of the Rights, as such, and all other parties.

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Section 31. Severability. If any term, provision, covenant or restriction of this Rights Agreement or applicable to this Rights Agreement 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 Rights Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Section 32. Governing Law. This Rights Agreement and each Right Certificate issued hereunder 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 laws of such State applicable to contracts to be made and performed entirely within such State.

Section 33. Counterparts. This Rights Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 34. Descriptive Headings. Descriptive headings of the several Sections of this Rights Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

Section 35. USA PATRIOT Act. Each Person that is a party hereto acknowledges that the Rights Agent is subject to the customer identification program ("Customer Identification Program") requirements under the USA PATRIOT Act and its implementing regulations, and that the Rights Agent must obtain, verify and record information that allows the Rights Agent to identify each such person or entity. Accordingly, prior to accepting an appointment hereunder, the Rights Agent may request information from any such person or entity that will help the Rights Agent to identify such person or entity, including, without limitation, as applicable, such person or entity's physical address, tax identification number, organizational documents, certificate of good standing, license to do business, or any other information that the Rights Agent deems necessary. Each Person that is a party hereto acknowledges that the Rights Agent cannot accept an appointment hereunder unless and until the Rights Agent verifies each such person or entity's identity in accordance with the Customer Identification Program requirements.

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IN WITNESS WHEREOF, the parties hereto have caused this Rights Agreement to be duly executed and attested, all as of the day and year first above written.

TITAN PHARMACEUTICALS, INC.

Attest: /s/Fran Stoller

By: /s/ Sunil Bhonsle

Name: Sunil Bhonsle  
Title: President

CONTINENTAL STOCK TRANSFER & TRUST COMPANY

Attest: /s/ Leslie A. Deluca

By: /s/ John W. Comer, Jr.

Leslie A. Deluca  
Vice President

Name: John W. Comer, Jr.  
Title: Vice President

FORM  
OF  
CERTIFICATE OF DESIGNATIONS  
OF  
JUNIOR PARTICIPATING PREFERRED STOCK  
OF  
TITAN PHARMACEUTICALS, INC.  
(Pursuant to Section 151 of the  
General Corporation Law of the State of Delaware)

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Titan Pharmaceuticals, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware (the “Company”), hereby certifies that pursuant to the authority contained in Article Fourth of its Certificate of Incorporation, as amended and in accordance with the provisions of Section 151 of the General Corporation Law of the State of Delaware, the following resolution was duly adopted by the Board of Directors of the Company at a meeting held on December 19, 2011, which resolution remains in full force and effect on the date hereof:

RESOLVED, that pursuant to the authority vested in the Board of Directors of the Company (hereinafter being referred to as the “Board of Directors” or the “Board”) in accordance with the provisions of the Company’s Certificate of Incorporation (hereinafter being referred to as the “Certificate of Incorporation”), the Board of Directors hereby creates a series of preferred stock, par value \$0.001 per share, of the Company, to be designated the “Junior Participating Preferred Stock” and hereby adopts the resolution establishing the designations, number of shares, voting powers, preferences and relative, participating, optional and other rights, and the qualifications, restrictions and limitations thereof, of the shares of such series as set forth below:

Section 1. Designation and Amount. The shares of such series shall be designated as “Junior Participating Preferred Stock” (the “Junior Preferred Stock”) and the number of shares constituting the Junior Preferred Stock shall be 500,000 Such number of shares may be increased or decreased by resolution of the Board of Directors; provided, that no decrease shall reduce the number of shares of Junior Preferred Stock to a number less than the number of shares then outstanding plus the number of shares reserved for issuance upon the exercise of outstanding options, rights or warrants or upon the conversion of any outstanding securities issued by the Company convertible into Junior Preferred Stock.

Section 2. Dividends and Distributions.

(A) Subject to the rights of the holders of any shares of any series of preferred stock of the Company (the “Preferred Stock”) ranking prior and superior



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to the Junior Preferred Stock with respect to dividends, the holders of shares of Junior Preferred Stock, in preference to the holders of Common Stock, par value \$0.001 per share, of the Company (the "Common Stock") and of any other stock of the Company ranking junior to the Junior Preferred Stock, shall be entitled to receive, when, as and if declared by the Board of Directors out of funds legally available therefor, dividends (A) on each date that dividends or other distributions (other than dividends or distributions payable in Common Stock of the Company) are payable on or in respect of Common Stock comprising part of the Reference Package (as defined below), in an amount per whole share of this Series equal to the aggregate amount of dividends or other distributions (other than dividends or distributions payable in Common Stock of the Company) that would be payable on such date to a holder of the Reference Package, and (B) on the last day of March, June, September and December in each year, in an amount per whole share of this Series equal to the excess (if any) of a dollar amount equal to 0.025% of \$1,000.00 over the aggregate dividends paid per whole share of this Series during the three month period ending on such last day. The term "Reference Package" shall initially mean 1,000 shares of Common Stock, provided that in the event the Company shall at any time after December 20, 2011 (the "Rights Agreement Date") declare and pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then and in each such case the Reference Package after such event shall be the Common Stock that a holder of the Reference Package immediately prior to such event would hold thereafter as a result thereof.

(B) The Company shall declare a dividend or distribution on the Junior Preferred Stock as provided in paragraph (A) of this Section immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock); provided that, in the event no dividend or distribution shall have been declared on the Common Stock during the period between any Dividend Payment Date and the next subsequent Dividend Payment Date, a dividend of the excess (if any) of a dollar amount equal to 0.025% of \$1,000.00 over the aggregate dividends paid per whole share of this Series during the three month period ending on such subsequent Dividend Payment Date per share on the Junior Preferred Stock shall nevertheless be payable, when, as and if declared, on such subsequent Dividend Payment Date.

(C) Dividends shall begin to accrue and be cumulative, whether or not earned or declared, on outstanding shares of Junior Preferred Stock from the Dividend Payment Date next preceding the date of issue of such shares, unless the date of issue of such shares is prior to the record date for the first Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Dividend Payment Date or is a date after the record date for the determination of holders of shares of Junior Preferred Stock entitled to receive a quarterly dividend and before such

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Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Junior Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix a record date for the determination of holders of shares of Junior Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than 60 days prior to the date fixed for the payment thereof.

Section 3. Voting Rights. The holders of shares of Junior Preferred Stock shall have the following voting rights:

(A) Subject to the provision for adjustment hereinafter set forth and except as otherwise provided in the Certificate of Incorporation or required by law, each share of Junior Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters upon which the holders of the Common Stock of the Company are entitled to vote. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Junior Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(B) Except as otherwise provided herein, in the Certificate of Incorporation or in any other Certificate of Designations creating a series of Preferred Stock, and except as otherwise required by law, the holders of shares of Junior Preferred Stock and the holders of shares of Common Stock and any other capital stock of the Company having general voting rights shall vote together as one class on all matters submitted to a vote of stockholders of the Company.

(C) Except as set forth herein, or as otherwise provided by law, holders of Junior Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

(D) If, at the time of any annual meeting of stockholders for the election of directors, the equivalent of six quarterly dividends (whether or not consecutive) payable on any share or shares of Junior Preferred Stock are in default, the number of directors constituting the Board of Directors of the

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Company shall be increased by two. In addition to voting together with the holders of Common Stock for the election of other directors of the Company, the holders of record of the Junior Preferred Stock, together with the holders of outstanding shares of any one or more other classes or series of capital stock of the Company upon which like voting rights have been conferred and are exercisable (voting together as a class) shall be entitled at said meeting of stockholders (and at each subsequent annual meeting of stockholders), unless all dividends in arrears on the Junior Preferred Stock have been paid or declared and set apart for payment prior thereto, to vote for the election of two directors of the Company, the holders of any Junior Preferred Stock being entitled to cast a number of votes per share of Junior Preferred Stock as is specified in paragraph (A) of this Section 3. Each such additional director shall serve until the next annual meeting of stockholders for the election of directors, or until his successor shall be elected and shall qualify, or until his right to hold such office terminates pursuant to the provisions of this Section 3(D). Until the default in payments of all dividends which permitted the election of said directors shall cease to exist, any director who shall have been so elected pursuant to the provisions of this Section 3(D) may be removed at any time, without cause, only by the affirmative vote of a majority of the voting power of the holders of the shares of Junior Preferred Stock together with the holders of outstanding shares of any one or more other classes or series of capital stock of the Company upon which like voting rights have been conferred and are exercisable (voting together as a class) at a special meeting of such holders called for that purpose, and any vacancy thereby created may be filled by the vote of such holders. If and when such default shall cease to exist, the holders of the Junior Preferred Stock shall be divested of the foregoing special voting rights, subject to reversion in the event of each and every subsequent like default in payments of dividends. Upon the termination of the foregoing special voting rights, the terms of office of all persons who may have been elected directors pursuant to said special voting rights shall forthwith terminate, and the number of directors constituting the Board of Directors shall be reduced by two. The voting rights granted by this Section 3(D) shall be in addition to any other voting rights granted to the holders of the Junior Preferred Stock in this Section 3.

Section 4. Certain Restrictions.

(A) Whenever quarterly dividends or other dividends or distributions payable on the shares of Junior Preferred Stock as provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not earned or declared, on shares of Junior Preferred Stock outstanding shall have been paid in full, the Company shall not:

- (i) declare or pay dividends, or make any other distributions, on any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Junior Preferred Stock;

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(ii) declare or pay dividends, or make any other distributions, on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Junior Preferred Stock, except dividends paid ratably on the shares of Junior Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Junior Preferred Stock, provided that the Company may at any time redeem, purchase or otherwise acquire shares of any such junior stock in exchange for shares of any stock of the Company ranking junior (as to dividends and upon dissolution, liquidation or winding up) to the Junior Preferred Stock or rights, warrants or options to acquire such junior stock; or

(iv) redeem or purchase or otherwise acquire for consideration any shares of Junior Preferred Stock, or any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Junior Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the Board of Directors) to all holders of such shares upon such terms as the Board of Directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(B) The Company shall not permit any subsidiary of the Company to purchase or otherwise acquire for consideration any shares of stock of the Company unless the Company could, under paragraph (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

Section 5. Reacquired Shares. Any shares of Junior Preferred Stock purchased or otherwise acquired by the Company in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their retirement become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors, subject to any conditions and restrictions on issuance set forth herein.

Section 6. Liquidation, Dissolution or Winding Up. Upon any liquidation, dissolution or winding up of the Company, no distribution shall be made (A) to the holders of the Common Stock or of shares of any other stock of the Company ranking junior, upon liquidation, dissolution or winding up, to the Junior Preferred Stock unless, prior thereto, the holders of shares of Junior Preferred Stock shall have received \$1,000.00 per share, plus an amount equal to accrued and unpaid dividends and

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distributions thereon, whether or not earned or declared, to the date of such payment, provided that the holders of shares of Junior Preferred Stock shall be entitled to receive an aggregate amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1,000 times the aggregate amount to be distributed per share to holders of shares of Common Stock, or (B) to the holders of shares of stock ranking on a parity upon liquidation, dissolution or winding up with the Junior Preferred Stock, except distributions made ratably on the Junior Preferred Stock and all such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up. In the event, however, that there are not sufficient assets available to permit payment in full of the Junior Preferred Stock liquidation preference and the liquidation preferences of all other classes and series of stock of the Company, if any, that rank on a parity with the Junior Preferred Stock in respect thereof, then the assets available for such distribution shall be distributed ratably to the holders of the Junior Preferred Stock and the holders of such parity shares in the proportion to their respective liquidation preferences. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock together with the holders of outstanding shares of any one or more other classes or series of capital stock of the Company upon which like voting rights have been conferred and are exercisable (voting together as a class), or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the aggregate amount to which holders of shares of Junior Preferred Stock were entitled immediately prior to such event under the proviso in clause (A) of the preceding sentence shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Neither the merger or consolidation of the Company into or with another entity nor the merger or consolidation of any other entity into or with the Company (nor the sale of all or substantially all of the assets of the Company) shall be deemed to be a liquidation, dissolution or winding up of the Company within the meaning of this Section 6.

Section 7. Consolidation, Merger, etc. In case the Company shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are converted into, exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each share of Junior Preferred Stock shall at the same time be similarly converted into, exchanged for or changed into an amount per share (subject to the provision for adjustment hereinafter set forth) equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is converted, exchanged or converted. In the event the Company shall at any time after the Rights Agreement Date declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or

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lesser number of shares of Common Stock, then in each such case the amount set forth in the preceding sentence with respect to the conversion, exchange or change of shares of Junior Preferred Stock shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 8. No Redemption. The shares of Junior Preferred Stock shall not be redeemable from any holder.

Section 9. Rank. The Junior Preferred Stock shall rank, with respect to the payment of dividends and the distribution of assets upon liquidation, dissolution or winding up of the Company, junior to all other series of Preferred Stock and senior to the Common Stock.

Section 10. Amendment. If any proposed amendment to the Certificate of Incorporation (including this Certificate of Designations) would alter, change or repeal any of the preferences, powers or special rights given to the Junior Preferred Stock so as to affect the Junior Preferred Stock adversely, then the holders of shares of the Junior Preferred Stock shall be entitled to vote separately as a class upon such amendment, and the affirmative vote of two-thirds of the outstanding shares of the Junior Preferred Stock, voting separately as a class, shall be necessary for the adoption thereof, in addition to such other vote as may be required by the General Corporation Law of the State of Delaware.

Section 11. Fractional Shares. Junior Preferred Stock may be issued in fractions of a share that shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends, participate in distributions and to have the benefit of all other rights of holders of Junior Preferred Stock.

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IN WITNESS WHEREOF, this Certificate of Designations is executed on behalf of the Company by Sunil Bhonsle, Chief Executive Officer of the Company on December 20, 2011.

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Name: Sunil Bhonsle  
Title: Chief Executive Officer

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FORM OF RIGHT CERTIFICATE

Certificate No. R-

Rights

NOT EXERCISABLE AFTER THE EXPIRATION DATE (AS DEFINED IN THE RIGHTS AGREEMENT REFERRED TO BELOW). AT THE OPTION OF THE COMPANY, THE RIGHTS ARE SUBJECT TO REDEMPTION AT \$0.0001 PER RIGHT AND TO EXCHANGE ON THE TERMS SET FORTH IN THE RIGHTS AGREEMENT. UNDER CERTAIN CIRCUMSTANCES, AS SET FORTH IN THE RIGHTS AGREEMENT, RIGHTS OWNED BY OR TRANSFERRED TO ANY PERSON WHO IS OR BECOMES AN ACQUIRING PERSON (AS DEFINED IN THE RIGHTS AGREEMENT) AND CERTAIN TRANSFEREES THEREOF WILL BECOME NULL AND VOID AND WILL NO LONGER BE TRANSFERABLE.

Right Certificate

TITAN PHARMACEUTICALS, INC.

This certifies that \_\_\_\_\_ or registered assigns, is the registered owner of the number of Rights set forth above, each of which entitles the owner thereof, subject to the terms, provisions and conditions of the Rights Agreement, dated as of December 20, 2011 as the same may be amended from time to time (the "Rights Agreement"), between Titan Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and Continental Stock Transfer & Trust Company (the "Rights Agent"), to purchase from the Company at any time after the Distribution Date (as such term is defined in the Rights Agreement) and prior to 5:00 P.M., New York City time, on the Expiration Date at the office or agency of the Rights Agent designated for such purpose, or of its successor as Rights Agent, one one-thousandth of a fully paid non-assessable share of Junior Participating Preferred Stock, par value \$0.001 per share (the "Junior Preferred Stock"), of the Company, at a purchase price of \$4.41 per one one-thousandth of a share of Junior Preferred Stock (the "Purchase Price"), upon presentation and surrender of this Right Certificate with the Form of Election to Purchase duly executed. The number of Rights evidenced by this Right Certificate (and the number of one one-thousandth of a share of Junior Preferred Stock which may be purchased upon exercise hereof) set forth above, and the Purchase Price set forth above, are the number and Purchase Price as of December 20, 2011, based on the Junior Preferred Stock as constituted at such date. As provided in the Rights Agreement, the Purchase Price, the number of one one-thousandth of a share of Junior Preferred Stock (or other securities or property) which may be purchased upon the exercise of the Rights and the number of Rights evidenced by this Right Certificate are subject to modification and adjustment upon the happening of certain events.

Upon the occurrence of the events described in Section 11(a)(ii) and Section 13 of the Rights Agreement, if the Rights evidenced by this Right Certificate are beneficially owned



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by an Acquiring Person or an Affiliate or Associate of any such Acquiring Person or, under certain circumstances described in the Rights Agreement, a transferee of any such Acquiring Person, Associate or Affiliate, such Rights shall become null and void and no holder hereof shall have any right with respect to such Rights from and after the occurrence of such events.

In certain circumstances described in the Rights Agreement, the Rights evidenced hereby may entitle the registered holder thereof to purchase capital stock of an entity other than the Company or receive common stock, cash or other assets of an entity other than the Company, all as provided in the Rights Agreement.

This Right Certificate is subject to all of the terms, provisions and conditions of the Rights Agreement, which terms, provisions and conditions are hereby incorporated herein by reference and made a part hereof and to which Rights Agreement reference is hereby made for a full description of the rights, limitations of rights, obligations, duties and immunities hereunder of the Rights Agent, the Company and the holders of the Right Certificates. Copies of the Rights Agreement are on file at the principal executive offices of the Company. The Company will mail to the holder of this Right Certificate a copy of the Rights Agreement without charge after receipt of a written request therefor.

This Right Certificate, with or without other Right Certificates, upon surrender at the office or agency of the Rights Agent designated for such purpose, may be exchanged for another Right Certificate or Right Certificates of like tenor and date evidencing Rights entitling the holder to purchase a like aggregate number of shares of Junior Preferred Stock as the Rights evidenced by the Right Certificate or Right Certificates surrendered shall have entitled such holder to purchase. If this Right Certificate shall be exercised in part, the holder shall be entitled to receive upon surrender hereof another Right Certificate or Right Certificates for the number of whole Rights not exercised.

Subject to the provisions of the Rights Agreement, the Rights evidenced by this Certificate (i) may be redeemed by the Company at a redemption price of \$0.0001 per Right or (ii) may be exchanged, at the option of the Company, in whole or in part for shares of Junior Preferred Stock or shares of the Company's Common Stock, par value \$0.001 per share.

No fractional shares of Junior Preferred Stock or Common Stock will be issued upon the exercise or exchange of any Right or Rights evidenced hereby (other than fractions of Junior Preferred Stock which are integral multiples of one one-thousandth of a share of Junior Preferred Stock, which may, at the election of the Company, be evidenced by depositary receipts), but in lieu thereof a cash payment will be made, as provided in the Rights Agreement.

No holder of this Right Certificate, as such, shall be entitled to vote or receive dividends or be deemed for any purpose the holder of the Junior Preferred Stock or of any other securities of the Company which may at any time be issuable on the exercise or exchange hereof, nor shall anything contained in the Rights Agreement or herein be construed to confer upon the holder hereof, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, or to receive notice of meetings or other actions affecting stockholders (except as provided in the Rights Agreement) or to receive dividends or subscription rights, or otherwise, until the Right or Rights evidenced by this Right certificate shall have been exercised or exchanged as provided in the Rights Agreement.

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This Right Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the Rights Agent.

WITNESS the facsimile signature of the proper officers of the Company and its corporate seal. Dated as of \_\_\_\_\_, 2011.

ATTEST:

TITAN PHARMACEUTICALS, INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Countersigned:

CONTINENTAL STOCK TRANSFER & TRUST COMPANY,  
as Rights Agent

By: \_\_\_\_\_

Authorized Signatory

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Form of Reverse Side of Right Certificate

FORM OF ASSIGNMENT

*(To be executed by the registered holder if such holder desires to transfer the Right Certificate)*

FOR VALUE RECEIVED                      hereby sells, assigns and transfer unto

\_\_\_\_\_  
*(Please print name and address of transferee)*  
\_\_\_\_\_

Rights represented by this Right Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint Attorney, to transfer said Rights on the books of the within-named Company, with full power of substitution.

Dated:                      ,

\_\_\_\_\_  
Signature

Signature Guaranteed:

Signatures must be guaranteed by a bank, trust company, broker, dealer or other eligible institution participating in a recognized signature guarantee medallion program.

The undersigned hereby certifies that the Rights evidenced by this Right Certificate are not beneficially owned by, were not acquired by the undersigned from, and are not being sold, assigned or transferred to, an Acquiring Person (as defined in the Rights Agreement).

\_\_\_\_\_  
Signature

FORM OF ELECTION TO PURCHASE

*(To be executed if holder desires to exercise  
Rights represented by the Rights Certificate)*

To the Rights Agent:

The undersigned hereby irrevocably elects to exercise \_\_\_\_\_ Rights represented by this Right Certificate to purchase the shares of Junior Preferred Stock (or other securities or property) issuable upon the exercise of such Rights and requests that certificates for such shares of Junior Preferred Stock (or such other securities) be issued in the name of:

\_\_\_\_\_  
*(Please print name and address)*

If such number of Rights shall not be all the Rights evidenced by this Right Certificate, a new Right Certificate for the balance remaining of such Rights shall be registered in the name of and delivered to:

Please insert social security  
or other identifying number: \_\_\_\_\_

\_\_\_\_\_  
*(Please print name and address)*

Dated: \_\_\_\_\_,

\_\_\_\_\_  
Signature  
*(Signature must conform to holder specified on Right  
Certificate)*

Signature Guaranteed:

Signatures must be guaranteed by a bank, trust company, broker, dealer or other eligible institution participating in a recognized signature guarantee medallion program.

The undersigned hereby certifies that the Rights evidenced by this Right Certificate are not beneficially owned by, were not acquired by the undersigned from, and are not being sold, assigned or transferred to, an Acquiring Person thereof (as defined in the Rights Agreement).

\_\_\_\_\_  
Signature

NOTICE

The signature in the Form of Assignment or Form of Election to Purchase, as the case may be, must conform to the name as written upon the face of this Right Certificate in every particular, without alteration or enlargement or any change whatsoever.

In the event the certification set forth above in the Form of Assignment or the Form of Election to Purchase, as the case may be, is not completed, such Assignment or Election to Purchase will not be honored.

UNDER CERTAIN CIRCUMSTANCES, AS SET FORTH IN THE RIGHTS AGREEMENT, RIGHTS OWNED BY OR TRANSFERRED TO ANY PERSON WHO IS OR BECOMES AN ACQUIRING PERSON (AS DEFINED IN THE RIGHTS AGREEMENT) AND CERTAIN TRANSFEREES THEREOF WILL BECOME NULL AND VOID AND WILL NO LONGER BE TRANSFERABLE.

SUMMARY OF RIGHTS TO PURCHASE  
Shares of Junior Participating Preferred Stock

On December 20, 2011 the Board of Directors of Titan Pharmaceuticals, Inc., a Delaware corporation (the "Company"), declared a dividend of one preferred share purchase right (a "Right") for each outstanding share of Common Stock, par value \$0.001 per share, of the Company (the "Common Stock"). The dividend is payable to the stockholders of record as of the close of business on January 3, 2012 (the "Record Date"). Each Right entitles the registered holder to purchase from the Company one one-thousandth of a share of Junior Participating Preferred Stock, par value \$0.001 per share (the "Junior Preferred Stock"), of the Company at a price of \$4.41 per one one-thousandth of a share of Junior Preferred Stock (as the same may be adjusted, the "Purchase Price"). The description and terms of the Rights are set forth in a Rights Agreement, dated as of December 20, 2011 (as the same may be amended from time to time, the "Rights Agreement"), between the Company and Continental Stock Transfer & Trust Company, as Rights Agent (the "Rights Agent").

Until the close of business on the earlier of (i) the tenth business day after the first date of a public announcement that a person (other than an Exempted Entity (as defined below)) individually or together with such persons affiliates or associates (collectively, an "Acquiring Person") has acquired beneficial ownership of 15% or more of the shares of Common Stock then outstanding or (ii) the tenth business day (or such later date as may be determined by action of a majority of the Board of Directors prior to such time as any person becomes an Acquiring Person) after the date of commencement of, or the first public announcement of an intention to commence, a tender offer or exchange offer the consummation of which would result in any person becoming an Acquiring person (the earlier of such dates being herein referred to as the "Distribution Date"), the Rights will be evidenced by the balances indicated in the book entry account system of the transfer agent for Common Stock registered in the names of the holders thereof or in the case of certificated shares, by certificates for Common Stock outstanding as of the Record Date.

"Exempted Entity" shall mean (1) the Company, (2) any subsidiary of the Company (in the case of subclauses (1) and (2) including, without limitation, in its fiduciary capacity), (3) any employee benefit plan of the Company or of any subsidiary of the Company, (4) any entity or trustee holding Common Stock for or pursuant to the terms of any such plan or for the purpose of funding any such plan or funding other employee benefits for employees of the Company or of any subsidiary of the Company.

The Rights Agreement provides that, until the Distribution Date (or earlier redemption or expiration of the Rights), the Rights will be transferable only in connection with the transfer of Common Stock. Until the Distribution Date (or earlier redemption or expiration

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of the Rights), the transfer of shares of Common Stock outstanding as of the Record Date, even without a notation incorporating the Rights Agreement by reference or a copy of this Summary of Rights, will also constitute the transfer of the Rights associated with the shares of Common Stock so transferred. As soon as practicable following the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of the Common Stock as of the close of business on the Distribution Date and such separate Right Certificates alone will evidence the Rights.

The Rights are not exercisable until the Distribution Date. The Rights will expire following the one year anniversary of the date of the Rights Agreement.

The Purchase Price payable, and the number of shares of Junior Preferred Stock or other securities or property purchasable, upon exercise of each Right and the number of Rights outstanding are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the Junior Preferred Stock, (ii) upon the grant to holders of the Junior Preferred Stock of certain rights or warrants to subscribe for or purchase Junior Preferred Stock at a price, or securities convertible into Junior Preferred Stock with a conversion price, less than the then-current market price of the Junior Preferred Stock or (iii) upon the distribution to holders of the Junior Preferred Stock of evidences of indebtedness or assets (excluding regular quarterly cash dividends or dividends payable in Junior Preferred Stock) or of subscription rights or warrants (other than those referred to above).

Shares of Junior Preferred Stock purchasable upon exercise of the Rights will not be redeemable. Each share of Junior Preferred Stock will be entitled, when, as and if declared, to a minimum preferential quarterly dividend payment of (A) 1,000 times the amount of dividends payable in respect of one share of Common Stock during such period, and (B) on the last day of March, June, September and December in each year, in an amount per whole share equal to the excess (if any) of 0.25% of \$1,000.00 over the aggregate dividends paid pursuant to the foregoing clause (A). In the event of liquidation, dissolution or winding up of the Company, the holders of the Junior Preferred Stock will be entitled to a minimum preferential liquidation payment of \$1,000.00 per share (plus any accrued but unpaid dividends) but will be entitled to an aggregate of 1,000 times the payment made per share to holders of shares of Common Stock. Each share of Junior Preferred Stock will have 1,000 votes, voting together with the Common Stock. Finally, in the event of any merger, consolidation or other transaction in which shares of Common Stock are converted or exchanged, each share of Junior Preferred Stock will be entitled to receive 1,000 times the amount received per share of Common Stock. These rights are protected by customary anti-dilution provisions.

Because of the nature of the Junior Preferred Stock's dividend, liquidation and voting rights, the value of the one one-thousandth interest in a share of Junior Preferred Stock purchasable upon exercise of each Right should approximate the value of one share of Common Stock.

In the event that any person becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person (which will thereupon become void), will thereafter have the right to receive upon exercise of a Right and payment of the Purchase Price, that number of shares of Common Stock (or at the option of the Company, such number of one one-thousandths of a share of Junior Preferred Stock) having a market value of two times the Purchase Price.

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In the event that, after a person has become an Acquiring Person, the Company is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold, proper provision will be made so that each holder of a Right (other than Rights beneficially owned by an Acquiring Person which will have become void) will thereafter have the right to receive, upon the exercise thereof at the then-current exercise price of the Right, that number of shares of common stock of the person with whom the Company has engaged in the foregoing transaction (or its parent), which number of shares at the time of such transaction will have a market value of two times the Purchase Price.

At any time after any person becomes an Acquiring Person and prior to the acquisition by such person of 50% or more of the outstanding shares of Common Stock or the occurrence of an event described in the prior paragraph, the Board of Directors of the Company may exchange the Rights (other than Rights owned by an Acquiring Person which will have become void), in whole or in part, at an exchange ratio of one share of Common Stock, or a one one-thousandth of a share of Junior Preferred Stock (or of a share of a similar class or series of the Company's preferred stock having similar rights, preferences and privileges) of equivalent value, per Right (subject to adjustment).

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in such Purchase Price. No fractional shares of Junior Preferred Stock will be issued (other than fractions which are integral multiples of one one-thousandth of a share of Junior Preferred Stock, which may, at the election of the Company, be evidenced by depositary receipts) and in lieu thereof, an adjustment in cash will be made based on the market price of the Junior Preferred Stock on the last trading day prior to the date of exercise or exchange.

At any time prior to the time an Acquiring Person becomes such, the Board of Directors of the Company may redeem the Rights in whole, but not in part, at a price of \$0.0001 per Right (the "Redemption Price"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board of Directors in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

For so long as the Rights are then redeemable, the Company may amend the Rights Agreement in any manner. After the Rights are no longer redeemable, the Company may amend the Rights Agreement in any manner that does not adversely affect the interests of holders of the Rights (other than those holders who become Acquiring Persons and whose rights become void).

Until a Right is exercised or exchanged, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.



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A copy of the Rights Agreement has been filed with the Securities and Exchange Commission as an Exhibit to a Registration Statement on Form 8-A dated December 21, 2011. A copy of the Rights Agreement is available free of charge from the Company. This summary description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, as the same may be amended from time to time, which is hereby incorporated herein by reference.



## Titan Pharmaceuticals, Inc.

**FOR IMMEDIATE RELEASE**

### **Titan Pharmaceuticals Adopts Stockholder Rights Plan, Files Shelf Registration of Securities on Form S-3**

**South San Francisco, CA—December 21, 2011** – Titan Pharmaceuticals, Inc. (OTC.BB: TTNP.OB), today announced that its board of directors has approved the adoption of a Stockholder Rights Plan and the filing of a shelf registration statement on Form S-3 with the U.S. Securities and Exchange Commission (SEC) for the possible future sale of Titan securities. Under the Rights Plan, each stockholder, at the close of business on January 3, 2012, will receive a dividend distribution of one right for each share of common stock held entitling the registered holder, in certain circumstances, to purchase from the Company common equivalent junior preferred stock. Upon effectiveness, the shelf registration will enable the Company to raise capital in the future, if needed, through the sale of registered securities.

“We are taking these actions at this time to maintain the integrity of our ongoing Probuphine™ partnering process and to enable us to maximize shareholder value,” said Marc Rubin, M.D., Executive Chairman of Titan Pharmaceuticals. “While the board of directors is not aware of any actions or efforts on the part of third parties to accumulate a significant portion of Titan’s outstanding common stock, the Rights Plan is intended to protect the Company and its stockholders from efforts to obtain control of Titan that are inconsistent with the best interests of the Company and its stockholders. The shelf registration provides us with financial options and flexibility, should the need arise.”

Under the Rights Plan, the rights will become exercisable in the event that any person or group, without prior Board approval, acquires 15 percent or more of the Company’s common stock or announces a tender offer which, if consummated, results in the ownership of 15% or more of the Company’s common stock. If the rights become exercisable, all rights holders (other than the person or group triggering the rights) will be entitled to acquire junior preferred stock with dividend, liquidation and voting rights approximating the value of common stock. The Rights Plan also provides that at any time after a 15 percent position is acquired and prior to the acquisition by any person or group of 50 percent or more of the Company’s outstanding common stock, the board of directors may, at its option, require each outstanding right (other than rights held by the acquiring person or group) to be exchanged for one share of common stock or one common stock equivalent. Titan’s board of directors has the ability to terminate the Rights Plan or redeem the rights prior to the time the rights are triggered. The Rights Plan will expire on December 20, 2012. For administrative convenience, the rights will automatically attach to the shares of common stock, trade together with those shares and will be represented by certificates representing the common stock. No further action will be required by Titan’s stockholders.

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The \$25 million shelf registration statement, when declared effective by the SEC, will allow Titan to offer and sell from time to time, in one or more offerings, common stock, preferred stock, equity warrants or any combination thereof. The terms of any such offerings will be established at the time of the offering, will be subject to market conditions and will be described in a supplement to the prospectus.

Further details of the Rights Plan and the shelf registration statement are contained in a Form 8-K filed today with the SEC.

#### **About Titan Pharmaceuticals**

For information concerning Titan Pharmaceuticals, Inc., please visit the company's website at [www.titanpharm.com](http://www.titanpharm.com).

*The press release may contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such statements include, but are not limited to, any statements relating to the Company's development program and any other statements that are not historical facts. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to difficulties or delays in development, testing, regulatory approval, production and marketing of the Company's drug candidates, adverse side effects or inadequate therapeutic efficacy of the Company's drug candidates that could slow or prevent product development or commercialization, the uncertainty of patent protection for the Company's intellectual property or trade secrets, and the Company's ability to obtain additional financing. Such statements are based on management's current expectations, but actual results may differ materially due to various factors, including those risks and uncertainties mentioned or referred to in this press release.*

#### **CONTACT:**

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