Prospectus Supplement

(To prospectus dated February 14, 2007)

5,445,546 shares of Common Stock

Titan Pharmaceuticals, Inc.

We are offering on a "best efforts" basis up to 5,445,546 shares of our common stock at a purchase price of \$2.02 per share to certain individual and institutional investors for aggregate proceeds of \$11,000,000. In connection with this offering, we will pay fees to Rodman & Renshaw, LLC, as placement agent. See "Plan of Distribution" beginning on page S-3 for more information regarding this arrangement.

Our common stock is traded on the American Stock Exchange under the symbol "TTP." The closing price of the common stock on the American Stock Exchange on April 24, 2007 was \$2.31.

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. THESE RISKS ARE DESCRIBED UNDER THE CAPTION "RISK FACTORS" IN THE ACCOMPANYING PROSPECTUS AND THE DOCUMENTS INCORPORATED BY REFERENCE THEREIN.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is April 25, 2007

Rodman & Renshaw, LLC

About This Prospectus Supplement

This prospectus supplement is a supplement to the accompanying prospectus that is also a part of this document. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission using a "shelf" registration process. Under the shelf registration process, we may sell any combination of the securities described in the accompanying prospectus up to a total dollar amount of \$50,000,000, of which this offering is a part. In March 2007, we filed a prospectus supplement with the Securities and Exchange Commission for the sale of up to \$25,000,000 of our common stock under our shelf registration statement.

In the prospectus, we provide you with a general description of the shares of our common stock that we are offering and specific information about the terms of this offering. Both this prospectus supplement and the accompanying prospectus include important information about us and about our common stock and other information you should know before investing. This prospectus supplement also adds, updates and changes information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with the statements made in the accompanying prospectus or our previously filed prospectus supplement, the statements made in the accompanying prospectus supplement are deemed modified or superseded by the statements made in this prospectus supplement.

You should read both this prospectus supplement and the accompanying prospectus as well as the additional information described under the heading "Incorporation of Certain Documents by Reference" on page 15 of the accompanying prospectus before investing in our common stock and warrants. In addition to the documents listed on page 15 of the accompanying prospectus we are incorporating by reference any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus that is also part of this document. We have not authorized anyone to provide information different from that contained or incorporated in this prospectus supplement and the accompanying prospectus. We are offering to sell shares of common stock only in jurisdictions where offers and sales are permitted. The information contained or incorporated in this prospectus supplement and the accompanying prospectus is accurate only as of the date of such information, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock.

In this prospectus supplement, "we," "us," and "our company" refer to Titan Pharmaceuticals, Inc., together with its subsidiaries, unless the context otherwise requires.

Use of Proceeds

If we sell 5,445,546 shares of our common stock pursuant to this offering at a price of \$2.02 per share, the proceeds to us from this offering, after deducting the placement agent's fee of \$660,000 and other offering expenses estimated at \$75,000, will be \$10,265,000. Our placement agent, Rodman & Renshaw, LLC will be working solely on a "best efforts" basis and, therefore, we may not sell the entire amount of shares of our common stock offered pursuant to this prospectus supplement. We plan to use the net proceeds we raise for general corporate purposes and for research and product development activities.

Pending application of the proceeds of the sale of securities, we intend to divest the net proceeds of the sale in short-term, investment-grade, interest-bearing instruments.

Dilution

The net tangible book value of our issued and outstanding common stock on December 31, 2006 was \$10,405,000, or approximately \$0.27 per share. Net tangible book value per share represents the amount of our total tangible assets, less our total liabilities, divided by the total number of shares of our common stock outstanding. Dilution in net tangible book value per share to new investors represents the difference between the amount per share paid by purchasers of shares of our common stock in this offering and the net tangible book value per share of our common stock immediately afterwards. Without taking into account any other changes in net tangible book value after December 31, 2006, other than the sale of the 5,445,546 shares of common stock offered by us under this prospectus supplement at a price of \$2.02 per share and after deducting the placement agent's fee of \$660,000 and other offering expenses payable by us estimated at \$75,000, our net tangible book value would have been \$20,670,000, or approximately \$0.47 per share. This represents an immediate accretion in net tangible book value of approximately \$0.20 per share to existing stockholders and an immediate dilution in net tangible book value of approximately \$1.55 per share to new investors.

Plan of Distribution

We are offering up to 5,445,546 shares of our common stock at a purchase price of \$2.02 per share to certain individual and institutional investors for aggregate proceeds of \$11,000,000. In connection with this offering, we will pay fees to Rodman & Renshaw, LLC, our placement agent ("Rodman & Renshaw, LLC"), who will be working solely on a "best efforts" basis. The placement agent is not purchasing or selling any shares by this prospectus supplement or the accompanying prospectus, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of shares. Therefore, we may not sell the entire amount of shares of our common stock offered pursuant to this prospectus supplement.

The securities purchase agreement provides that the obligations of the investors in the offering are subject to certain conditions precedent, including the absence of any material adverse change in our business and the receipt of certain opinions and certificates from us and our counsel.

Confirmations and definitive prospectuses will be delivered, or otherwise made available, to all investors who agree to purchase shares of the common stock, informing investors of the closing date as to such shares. We currently anticipate that closing of the sale of 5,445,546 shares of common stock will occur upon our receipt of approval of the listing of the new shares and the satisfaction of other customary closing conditions. Investors will also be informed of the date and manner in which they must transmit the purchase price for their shares.

On the scheduled closing date, the following will occur:

• we will receive funds in the amount of the aggregate purchase price; and

• we will pay the placement agent fee in accordance with the terms of our agreement with Rodman & Renshaw, LLC.

On April 17, 2007, we entered into a letter agreement with Rodman & Renshaw, LLC to act as an exclusive placement agent for purchasers of our securities pursuant to our existing shelf registration statement, file no. 333-140518, for a period of 30 days and thereafter to act on a non-exclusive basis. Pursuant to the agreement, we will pay Rodman & Renshaw, LLC at closing a cash fee equal to 6% of all cash proceeds received by us from investors it introduces to us for a maximum fee of \$660,000. We have also agreed to pay to reimburse Rodman & Renshaw, LLC for up to \$25,000 of expenses incurred in connection with the offering. Under no circumstances, however, will the fee, commission or discount received by Rodman & Renshaw, LLC or any other NASD member or independent broker-dealer exceed 8% for the sale of any securities in this offering. The estimated offering expenses payable by us, in addition to the placement agent's fees, are \$50,000, which include legal, accounting and printing costs and various other fees associated with registering and listing the shares of common stock.

We have agreed to indemnify Rodman & Renshaw, LLC against certain liabilities, including liabilities under the Securities Act. We may also be required to contribute to payments Rodman & Renshaw, LLC may be required to make in respect of such liabilities.

The agreement with Rodman & Renshaw, LLC and the form of stock purchase agreement with the investors are included as exhibits to our Current Report on Form 8-K that will be filed with the Securities and Exchange Commission in connection with the completion of this offering.

Rodman & Renshaw, LLC may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As underwriters, Rodman & Renshaw, LLC would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by Rodman & Renshaw, LLC. Under these rules and regulations, Rodman & Renshaw, LLC:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as
 permitted under the Exchange Act, until such it has completed its participation in the distribution.

Legal Matters

Certain legal matters with respect to the shares of common stock offered hereby have been passed upon by Loeb & Loeb LLP in New York, New York. Feldman Weinstein Smith LLP in New York, New York is acting as counsel for the placement agent.