

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

**SCHEDULE 13D**  
Under the Securities Exchange Act of 1934  
(Amendment No. )\*

**IMPRIMIS PHARMACEUTICALS, INC.**  
(Name of Issuer)

**COMMON STOCK, \$0.001 PAR VALUE PER SHARE**  
(Title of Class of Securities)

**45323A 102**  
(CUSIP Number)

**Mark L. Baum**  
**C/O Imprimis Pharmaceuticals, Inc.**  
**437 S. Highway 101, Suite 209**  
**Solana Beach, CA 92075**  
**858-433-2800**  
(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

**July 12, 2012**  
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following pages)

|           |   |  |
|-----------|---|--|
| <b>1</b>  | NAMES OF REPORTING PERSONS  |  |
|           | Mark L. Baum  |  |
| <b>2</b>  | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP<br>(see instructions) (a) <input type="checkbox"/><br>(b) <input type="checkbox"/> |  |
| <b>3</b>  | SEC USE ONLY  |  |
| <b>4</b>  | SOURCE OF FUNDS (see instructions)  |  |
|           | OO <sup>1</sup>   |  |
| <b>5</b>  | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED<br>PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>                      |  |
| <b>6</b>  | CITIZENSHIP OR PLACE OF ORGANIZATION  |  |
|           | U.S.A.  |  |
|           | <b>7</b>  | SOLE VOTING POWER<br>1,469,410 <sup>2</sup>      |
|           | <b>8</b>  | SHARED VOTING POWER<br>0                         |
|           | <b>9</b>  | SOLE DISPOSITIVE POWER<br>1,469,410 <sup>2</sup> |
|           | <b>10</b>   | SHARED DISPOSITIVE POWER<br>0                    |
| <b>11</b> | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  |  |
|           | 1,469,410 <sup>2</sup>  |  |
| <b>12</b> | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES<br>(see instructions) <input type="checkbox"/>                |  |
| <b>13</b> | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11  |  |
|           | 4.85 % <sup>3</sup>   |  |
| <b>14</b> | TYPE OF REPORTING PERSON (see instructions)   |  |
|           | IN  |  |

<sup>1</sup> The shares of Common Stock beneficially owned by Mr. Baum were acquired (a) with the working capital of DermaStar and upon the distribution of such shares from DermaStar to Mr. Baum in his capacity as a member of DermaStar, or (b) in exchange for services performed by Mr. Baum for the Issuer.

<sup>2</sup> Consists of (a) 846,927 shares of Common Stock distributed to Mr. Baum by DermaStar on July 12, 2012; (b) 12,066 shares of Common Stock issuable upon exercise of the Baum Warrant, which is exercisable within 60 days after the date of this Statement; and (c) options to purchase 610,417 shares of Common Stock held by Mr. Baum and exercisable within 60 days after the date of the filing of this Statement.

<sup>3</sup> The percentage was calculated based on 30,318,696 shares of Common Stock, as follows: (a) 29,696,213 shares of Common Stock outstanding as of July 16, 2012, as reported in the Registration Statement on Form S-1 filed by the Issuer on July 25, 2012; (b) 12,066 shares of Common Stock issuable upon exercise of the Baum Warrant, which is exercisable within 60 days after the date of this Statement; and (c) 610,417 shares of Common Stock issuable upon the exercise of options to purchase shares of Common Stock held by Mr. Baum and exercisable within 60 days after the date of the filing of this Statement.

**Item 1. Security and Issuer**

This Schedule 13D (the “Statement”) is filed with respect to the common stock, par value \$0.001 (the “Common Stock”), of Imprimis Pharmaceuticals, Inc., a Delaware corporation (the “Issuer,” and formerly known as Transdel Pharmaceuticals, Inc.). The principal executive offices of the Issuer are located at 437 S. Highway 101, Suite 209, Solana Beach, CA 92075.

**Item 2. Identity and Background.**

(a) This Statement is being filed by Mark L. Baum, an individual.

(b) The business address of Mr. Baum is C/O Imprimis Pharmaceuticals, Inc., 437 S. Highway 101, Suite 209, Solana Beach, CA 92075.

(c) Mr. Baum is a director and the Chief Executive Officer of the Issuer.

(d) During the past five years, Mr. Baum has not been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the past five years, Mr. Baum was not a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Mr. Baum is a citizen of the United States of America.

**Item 3. Source and Amount of Funds or Other Consideration.**

The information set forth under Item 4 and Item 6 is incorporated in this Item 3 by reference.

**Item 4. Purpose of Transaction.**

On July 12, 2012, DermaStar International, LLC (“DermaStar”) distributed to its members and to certain additional individuals all shares of the Issuer’s Common Stock held of record by DermaStar as of that date (the “Distribution Transaction”), which consisted of the following: (a) 7,498,500 shares of Common Stock issued upon DermaStar’s conversion of ten (10) shares of Series A Preferred Stock of the Issuer pursuant to the terms of a Conversion Agreement dated June 29, 2012 between DermaStar and the Issuer, (b) an additional 8,240,045 shares of Common Stock held by DermaStar as of July 12, 2012, and (c) a warrant issued to DermaStar on April 25, 2012 to purchase 241,308 shares of Common Stock (the “DermaStar Warrant”). Pursuant to the Distribution Transaction, effective July 12, 2012, Mr. Baum, in his capacity as a member of DermaStar, received from DermaStar (i) 846,927 shares of Common Stock, and (ii) a warrant to purchase 12,066 shares of Common Stock (the “Baum Warrant”), representing the portion of the DermaStar Warrant distributed to Mr. Baum.

Mr. Baum holds the shares of Common Stock, and rights to acquire shares of Common Stock, as reported in this Statement for general investment purposes. Mr. Baum may, from time to time, acquire additional shares of Common Stock or other securities of the Issuer, in his capacity as an officer and director of the Issuer or otherwise, or engage in discussions with the Issuer concerning investments in the Issuer. Mr. Baum intends to review his ownership of Common Stock on a continuing basis and, depending upon the price and availability of shares of Common Stock, subsequent developments affecting the Issuer, the Issuer’s business and prospects, other investment and business opportunities available to Mr. Baum, general stock market and economic conditions, tax considerations and other factors considered relevant, may decide at any time to increase or to decrease the size of his holdings of the Issuer’s Common Stock.

Except as set forth in this Item 4 and in Item 6, as of the date of the filing of this Statement, Mr. Baum does not have any plan or proposal that relates to or would result in any of the transactions enumerated in sub-items (a)—(j) of Item 4 of Schedule 13D.

**Item 5. Interest in Securities of the Issuer.**

(a) Mr. Baum is the direct beneficial owner of 1,469,410 shares of Common Stock, representing 5.0% of the Common Stock of the Issuer and consisting of the following: (i) 846,927 shares of Common Stock, (ii) 12,066 shares of Common Stock underlying the Baum Warrant, which is exercisable within 60 days after the date of this Statement, and (iii) options to purchase 1,050,000 shares of Common Stock, 610,417 of which are exercisable within 60 days after the date of the filing of this Statement.

(b) Mr. Baum has the sole power to vote or direct the vote and sole power to dispose or direct the disposition of 1,469,410 shares of Common Stock (including rights to acquire Common Stock). Mr. Baum has shared power to vote or direct the vote and shared power to dispose or direct the disposition of zero shares of Common Stock (including rights to acquire Common Stock).

(c) Except as reported herein, Mr. Baum has not effected any transactions in the Issuer's securities within the past 60 days.

(d) Not applicable.

(e) Effective as of the date of the event that requires the filing of this Statement, Mr. Baum ceased to be the beneficial owner of more than five percent of the Common Stock.

**Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.**

The information set forth above under Item 4 is incorporated in this Item 6 by reference.

On December 16, 2011, Mr. Baum began to serve as the Issuer's Chairman of the Board and its Principal Executive Officer and Secretary.

On January 25, 2012 and effective as of February 28, 2012, pursuant to the terms of the Imprimis Pharmaceuticals, Inc. 2007 Stock Incentive and Awards Plan (the "Plan"), Mr. Baum was issued an option to purchase up to 625,000 shares of Common Stock at an exercise price of \$0.48. The option has a ten-year term and vests over a one-year period, with 1/12<sup>th</sup> of the shares underlying the option vesting on each monthly anniversary of the date of issuance for the next twelve months thereafter.

On April 1, 2012, Mr. Baum was appointed as the Issuer's Chief Executive Officer and entered into an employment agreement with the Issuer, which was subsequently amended and restated effective July 24, 2012 (as amended and restated, the "Employment Agreement"). A copy of the Employment Agreement is attached as an exhibit to the Issuer's Registration Statement on Form S-1 filed on July 25, 2012 and is hereby incorporated in its entirety by reference, and the description thereof herein is qualified by reference to such exhibit. Concurrently with Mr. Baum's appointment as Chief Executive Officer, Mr. Baum resigned from his position as Chairman of the Board. Mr. Baum continues to serve as a member of the Company's Board of Directors and as the Company's Secretary.

Also on April 1, 2012, pursuant to the terms of the Plan, Mr. Baum was issued an option to purchase up to 300,000 shares of Common Stock at an exercise price of \$0.90. The option has a five-year term and vests over a two-year period, with 75,000 shares vesting immediately upon issuance and an additional 9,375 shares vesting on each monthly anniversary of the date of issuance for the next twenty-four months thereafter.

Also on April 1, 2012, the Issuer issued to each member of its Board of Directors, including Mr. Baum, an option to purchase up to 125,000 shares of Common Stock at an exercise price of \$0.90 pursuant to the Plan. Each such option has a five-year term and vests quarterly over a one-year period, with the initial 31,250 shares vesting on June 30, 2012, an additional 31,250 shares vesting on September 30, 2012, an additional 31,250 shares vesting on December 31, 2012 and the final 31,250 shares vesting on March 31, 2013.

The shares underlying the options described in this Item 6 total 1,050,000, 610,417 of which are exercisable by Mr. Baum within 60 days after the date of the filing of this Statement.

On July 18, 2012, the Issuer granted to Mr. Baum, in connection with his services as the Chief Executive Officer, 800,000 restricted stock units (“RSUs”) outside of the Plan, pursuant to a Stand-alone Restricted Stock Unit Agreement. The RSUs are subject to certain performance-based vesting criteria, such that 200,000 RSUs will vest upon the satisfaction of each of the following events: (i) successful completion of a financing that results in aggregate cash proceeds to the Company of at least \$5,000,000 at any time following the effective date of the grant; (ii) the Company meets the primary endpoints of its Phase III clinical studies for its drug candidate, Impracor; (iii) the Company submits a New Drug Application for Impracor to the U.S. Food and Drug Administration; and (iv) the Company enters into a definitive license, collaboration or similar agreement for Impracor that would reasonably be expected to generate cash flow for the Company. Accordingly, none of the RSUs vest within 60 days after the date of this Statement. The RSUs vest in full upon a change in control of the Company.

**Item 7. Material to be Filed as Exhibits.**

- Exhibit 1 Warrant, dated July 12, 2012, issued to Mark L. Baum by Imprimis Pharmaceuticals, Inc.
- Exhibit 2 Amended and Restated Employment Agreement, dated as of July 24, 2012, by and between Imprimis Pharmaceuticals, Inc. and Mark L. Baum (incorporated herein by reference to the Registration Statement on Form S-1 of Imprimis Pharmaceuticals, Inc. filed with the Securities and Exchange Commission on July 25, 2012).
- Exhibit 3 Stand-alone Restricted Stock Unit Agreement, dated as of July 18, 2012, by and between Imprimis Pharmaceuticals, Inc. and Mr. Mark L. Baum (incorporated herein by reference to Exhibit 10.40 to the Registration Statement on Form S-1 of Imprimis Pharmaceuticals, Inc. filed with the Securities and Exchange Commission on July 25, 2012).

**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: August 9, 2012

**MARK L. BAUM**

/s/ Mark L. Baum

By: Mark L. Baum, an individual