

DERMA SCIENCES, INC.  
Form 424B3  
July 22, 2011

PROSPECTUS

Filed Pursuant to Rule 424(b)(3)  
Registration No. 333-175421

Derma Sciences, Inc.

5,286,357 Shares of  
Common Stock

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This prospectus relates to the disposition from time to time of up to 5,286,357 shares of our common stock, consisting of 3,524,239 outstanding shares owned by the selling shareholders and 1,762,118 shares of common stock issuable upon exercise of outstanding warrants, held by the selling shareholders described in the section entitled "Selling Shareholders" on page 9 of this prospectus. The selling shareholders may offer and sell any of the shares of common stock from time to time at fixed prices, at market prices or at negotiated prices, and may engage a broker, dealer or underwriter to sell the shares. For additional information on the possible methods of sale that may be used by the selling shareholders, you should refer to the section entitled "Plan of Distribution" on page 12 of this prospectus. We will not receive any proceeds from the sale of the shares of common stock by the selling shareholders. We will, however, receive funds from the exercise of the warrants held by the selling shareholders, if exercised for cash. We are contractually obligated to pay all expenses of registration incurred in connection with this offering, except any underwriting discounts and commissions and expenses incurred by the selling shareholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholders in disposing of the shares.

Our common stock is traded on the NASDAQ Capital Market under the ticker symbol "DSCI". On July 20, 2011, the closing price for the common stock as reported by NASDAQ was \$10.96.

Investing in our securities involves substantial risks that you should consider and that are described under the heading "Risk Factors" beginning on page 3 and as described or may be described in any subsequent quarterly report on Form 10-Q and/or annual report on Form 10-K under the heading "Item 1A. Risk Factors," which reports are incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is July 21, 2011.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, and does not contain all of the information set forth in the registration statement, as permitted by the rules and regulations of the SEC. For additional information regarding us and the offered shares, please refer to the registration statement of which this prospectus is a part. Before purchasing any common stock you should carefully read this prospectus, together with the additional information described under the section of this prospectus titled “Where You Can Find More Information.” In particular, you should carefully consider the risks and uncertainties described under the section titled “Risk Factors” in this prospectus before you decide whether to purchase any common stock. These risks and uncertainties, together with those not known to us or those that we may deem immaterial, could impair our business and ultimately affect the price of our common stock.

You should rely only on the information contained in this prospectus or documents incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. No offers are being made hereby in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus is accurate only as of the date on the cover. Our business, financial condition, results of operations and prospects may have changed since that date.

## OUR COMPANY

We are a medical technology company developing and delivering solutions for advanced wound care management. Our business focuses on three areas of this market:

- **Pharmaceutical product development** – We currently have one drug candidate, DSC127, in development with an initial indication of treatment of diabetic foot ulcers. We reported positive Phase II data in the first half of 2011, and are working towards initiation of the Phase III pivotal studies. We licensed the intellectual property surrounding this compound from the University of Southern California in 2007, and have the global rights to all dermal indications.
- **Advanced Wound Care** – We have built, through internal development or in-licensing, a line of proprietary advanced wound care dressings. This line includes MEDIHONEY®, XTRASORB®, BIOGUARD® and ALGICELL® Ag. These products, along with other advanced wound care products, have exhibited strong growth potential and carry higher average gross profit margins than our overall business.
- **Traditional Wound Care** – Our base business includes both branded and private-label/OEM dressings for basic wound care. This business has exhibited modest growth potential and carries lower average gross profit margins than our overall business. This business does not require significant sales and marketing support. We utilize the positive cash flow from this business to help fund our Advanced Wound Care growth initiatives and pharmaceutical product development.

Our customers consist of various health care agencies and institutions such as wound care centers, long-term care facilities, hospitals, home healthcare agencies, physicians' offices and closed door pharmacies. We also sell our products through retail channels such as retail pharmacies, other retail outlets and first-aid kit manufacturers. In the United States, Canada and the United Kingdom, we employ direct selling organizations to generate demand, and our products are principally sold through medical products supply distributors. In other select international markets we sell our products through exclusive distributors. Our principal United States distribution facilities are located in St. Louis, Missouri, and Houston, Texas. In all other markets we utilize third party distributors. Our principal manufacturing facility is located in Toronto, Canada. We, through our subsidiary Derma Canada, have a light manufacturing facility in Nantong, China producing low volume and/or labor intensive wound care products. We also have manufacturing relationships in Mexico and China.

Derma Sciences, Inc. was organized and incorporated in 1984. In 1994, we completed our initial public offering and our common stock has been publicly held since that time. Derma Sciences, Inc. and our subsidiaries; Sunshine Products, Inc., Derma Sciences Canada Inc., Derma First Aid Products, Inc. and Derma Sciences Europe, Ltd., are referred to collectively in this prospectus as "we" or "us". Our executive offices are located at 214 Carnegie Center, Suite 300, Princeton, New Jersey and our telephone number is (609) 514-4744.

## RISK FACTORS

This investment involves a high degree of risk and you should purchase shares only if you can afford a complete loss of your investment. Consider carefully these risk factors and other information in this prospectus.

We have a history of losses and can offer no assurance of future profitability.

We incurred losses of \$547,032 in the three months ended March 31, 2011, \$2,448,864 for the year ended December 31, 2010, and additional losses in previous years. At March 31, 2011, we had an accumulated deficit of \$24,342,948. We cannot offer any assurance that we will be able to generate sustained or significant future earnings.



Our liquidity may be dependent upon amounts available under our existing line of credit or amounts available through additional debt or equity financings.

We have a history of operating losses and negative cash flow from operating activities. As such, we have utilized funds from offerings of our equity securities and line of credit to fund our operations. We have taken steps to improve our overall liquidity and believe we have sufficient liquidity to meet our needs for the foreseeable future. However, in the event our cash flow from operating activities is insufficient to meet our requirements, we may be forced either to refinance our current line of credit or seek additional equity financing. The sale of additional securities could result in additional dilution to our shareholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations. There can be no assurance that such financing would be available or, if available, that such financing could be obtained upon terms acceptable to us.

Our foreign operations are essential to our economic success and are subject to various unique risks.

During fiscal 2010 and 2009, our international operations accounted for 32% and 29%, respectively, of our total revenues. Our future operations and earnings will depend to a large extent on the results of our international operations and our ability to maintain a continuous supply of basic wound care products from our operations in China and suppliers in China and Mexico. Our revenues attributable to our international While we do not envision any adverse change to our international operations or suppliers, adverse changes to these operations, as a result of political, governmental, regulatory, economic, exchange rate, labor, logistical or other factors, could have a material adverse effect on our future operating results.

The rate of reimbursement for the purchase of our products by government and private insurance is subject to change.

Sales of several of our wound care products depend partly on the ability of our customers to obtain reimbursement for the cost of our products from government health administration agencies such as Medicare and Medicaid. Both government health administration agencies and private insurance firms continuously seek to reduce healthcare costs. Our ability to commercialize our products successfully will depend in part on the extent to which reimbursement for the costs of such products and related treatments will be available from government health administration authorities, private health insurers and other third-party payors. Significant uncertainty exists as to the reimbursement status of newly approved medical products. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- Our ability to set a price we believe is fair for our products;
- Our ability to generate revenues or achieve or maintain profitability; and
- The availability to us of capital.

Payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement, particularly for new therapeutic products or where payors perceive that the target indication of the new product is well served by existing drugs or other treatments. Accordingly, even if coverage and reimbursement are provided, market acceptance of our products would be adversely affected if the amount of coverage and/or reimbursement available for the use of our products proved to be unprofitable for healthcare providers or less profitable than alternative treatments.



There have been federal and state legislation changes which has subjected the pricing of healthcare goods and services to government control and made other changes to the United States healthcare system. While we cannot predict the outcome of current or future legislation, we anticipate, particularly given the recent enactment of healthcare reform legislation, that Congress and state legislatures will continue to introduce initiatives directed at lowering the total cost of healthcare. In addition, in certain foreign markets the pricing of drugs is subject to government control and reimbursement may in some cases be unavailable or insufficient. It is uncertain if future legislation, whether domestic or abroad, will be adopted that might affect our products. It is also uncertain what actions federal, state or private payors for healthcare treatment and services may take in response to any such healthcare reform proposals or legislation. Any such healthcare reforms could have a material and adverse effect on the marketability of any products for which we ultimately receive FDA or other regulatory agency approval or for which we receive government sponsored reimbursement.

The commercialization of our drug candidate, DSC127, will require substantial investments of capital and involves numerous uncertainties.

Commercialization of our drug candidate, DSC127, requires successful completion of Phase 3 clinical studies. Initiation of Phase 3 studies, in turn, requires Food and Drug Administration (FDA) approval of Phase 2 results together with FDA approval of Phase 3 protocols. The FDA could condition its approval of Phase 2 results upon further Phase 2 procedures and/or could require that the Phase 3 studies involve greater numbers of patients or different procedures than those currently anticipated. As such, the costs associated with preparation for, and conduct of, DSC127 Phase 3 clinical studies may be greater than anticipated. Further, it is uncertain whether our available capital, together with future cash flow, will be sufficient to meet the costs of the Phase 3 studies. Should our resources be insufficient to meet Phase 3 costs, we may be required to meet these costs either by out-licensing certain rights to DSC127, entering into joint ventures, raising additional equity and/or debt capital or a combination of the foregoing. Finally, there can be no assurance that DSC127 will successfully complete Phase 3 clinical studies. Any such failure could have a depressive effect upon the market value of our common stock.

Our success may depend upon our ability to protect our patents and proprietary technology.

We own patents, both in the United States and abroad, for several of our products, and rely upon the protection afforded by our patents and trade secrets to protect our technology. Our future success may depend upon our ability to protect our intellectual property. However, the enforcement of intellectual property rights can be both expensive and time consuming. Therefore, we may not be able to devote the resources necessary to prevent infringement of our intellectual property. Also, our competitors may develop or acquire substantially similar technologies without infringing our patents or trade secrets. For these reasons, we cannot be certain that our patents and proprietary technology will provide us with a competitive advantage.

Government regulation plays a significant role in our ability to acquire and market products.

Government regulation by the United States Food and Drug Administration and similar agencies in other countries is a significant factor in the development, manufacturing and marketing of many of our products and in our acquisition or licensing of new products. Complying with government regulations is often time consuming and expensive and may involve delays or actions adversely impacting the marketing and sale of our current or future products.

Approximately 40 percent of our products are sourced from third parties.

Approximately 40 percent of our products are sourced in raw, semi-finished and finished form directly from third party suppliers. None of these suppliers presently account for goods sold that are more than 10 percent of our

sales. We maintain good relations with our third party suppliers. There are several third party suppliers available for each of our products. If a current supplier were unable or unwilling to continue to supply our products, sale of the affected products could be delayed for the period necessary to secure a replacement.



The technology utilized in many of our advanced wound care products is licensed from third parties and could become unavailable.

Many of our advanced wound care products utilize technology that we license on an exclusive basis from third parties. These products include Medihoney dressings, Bioguard dressings and MedEfficiency™ total contact casts. The licensing agreements that we have with the owners of these technologies are of limited duration (with the exception of Medihoney, which is in perpetuity) and renewals of the agreements are in the discretion of the licensors. In addition, the maintenance of the license agreements requires that we meet various minimum sales and/or minimum royalty requirements. If we fail to meet the minimum sales or minimum royalty requirements of a given license agreement, there is a possibility that the agreement will be cancelled or not renewed or that our exclusivity under the license agreement will be withdrawn. If any of these events were to occur, our ability to sell the products utilizing the licensed technology could be lost or compromised and our revenues and potential profits could be adversely affected.

Competitors could invent products superior to ours and cause our products and technology to become obsolete.

The wound and skin care sectors of the medical products industry are characterized by rapidly evolving technology and intense competition. Our competitors currently manufacture and distribute a variety of products that are in many respects comparable to our products. Many suppliers of competing products are considerably larger and have much greater resources than we do. In addition, many specialized products companies have formed collaborations with large, established companies to support research, development and commercialization of wound and skin care products which may be competitive with ours. Academic institutions, government agencies and other public and private research organizations are also conducting research activities and may commercialize wound and skin care products on their own or through joint ventures. While we have no specific knowledge of products under development by our competitors, it is possible that these competitors may develop technologies and products that are more effective than any we currently have. If this occurs, any of our products and technology affected by these developments could become obsolete.

Although we are insured, any material product liability claims could adversely affect our business.

We sell over-the-counter products and medical devices and are exposed to the risk of lawsuits claiming alleged injury caused by our products. Among the grounds for potential claims against us are injuries due to alleged product inefficacy and injuries resulting from infection due to allegedly non-sterile products. Although we carry product liability insurance with limits of \$1.0 million per occurrence and \$2.0 million aggregate with \$10.0 million in umbrella coverage, this insurance may not be adequate to reimburse us for all damages that we could suffer as a result of successful product liability claims. Also, defending against a claim could be time consuming and costly. No material product liability claim has ever been made against us and we are not aware of any pending product liability claims. However, a successful material product liability suit could adversely affect our business.

The potential increase in common shares due to the conversion, exercise or vesting of outstanding dilutive securities may have a depressive effect upon the market value of our shares.

As of July 7, 2011, up to 4,702,422 shares of our common stock are potentially issuable upon the conversion, exercise or vesting of outstanding convertible preferred stock, warrants, options and restricted stock units (“dilutive securities”). The shares of common stock potentially issuable upon conversion, exercise or vesting of dilutive securities are substantial compared to the 10,302,421 shares of common stock currently outstanding.



Earnings per share of common stock may be substantially diluted by the existence of these dilutive securities regardless of whether they are converted, exercised or issued. This dilution of earnings per share could have a depressive effect upon the market value of our common stock.

Our stock price has been volatile and this volatility is likely to continue.

Historically, the market price of our common stock has been volatile. The high and low stock prices for the years 2006 through 2010, and for 2011 (through June 30, 2011) are set forth in the table below:

Derma Sciences, Inc.  
Trading Range – Common Stock

| Year   | Low     | High     |
|--------|---------|----------|
| 2006   | \$ 3.60 | \$ 7.20  |
| 2007   | \$ 4.64 | \$ 11.20 |
| 2008   | \$ 1.60 | \$ 10.80 |
| 2009   | \$ 1.92 | \$ 6.80  |
| 2010   | \$ 4.40 | \$ 9.00  |
| 2011 * | \$ 4.55 | \$ 12.60 |

(\*) January 1 through June 30.

Events that may affect our common stock price include:

- Quarter to quarter variations in our operating results;
- The outcome of further development work, clinical trials, and meetings with the FDA regarding the commercialization of DSC127;
  - Changes in earnings estimates by securities analysts;
  - Changes in interest rates or other general economic conditions;
  - Changes in market conditions in the wound care industry;
- Fluctuations in stock market prices and trading volumes of similar companies;
- Discussion of us or our stock price by the financial and scientific press and in online investor communities;
  - Additions or departures of key personnel;
  - Changes in third party reimbursement policies;
- The introduction of new products either by us or by our competitors; and
  - The loss of a major customer.

Although all publicly traded securities are subject to price and volume fluctuations, it is likely that our common stock will experience these fluctuations to a greater degree than the securities of more established and better capitalized organizations.

We have not paid, and we are unlikely to pay in the near future, cash dividends on our securities.

We have never paid any cash dividends on our common or preferred stock and do not anticipate paying cash dividends in the foreseeable future. The payment of dividends by us will depend on our future earnings, financial condition and such other business and economic factors as our management may consider relevant.



Our common stock has a limited trading volume and you may not be able to sell your securities when desired.

We have a limited active public market for our common shares. We cannot assure you that a more active public market will develop thereby allowing you to sell large quantities of our shares. Consequently, you may not be able to readily liquidate your investment.

### FORWARD LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus and any prospectus supplement contain forward-looking statements. Such forward-looking statements include statements regarding, among other things, (a) our projected sales and profitability, (b) our growth strategies, (c) anticipated trends in our industry, (d) our future financing plans, and (e) our anticipated needs for working capital. Forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations, are generally identifiable by use of the words “may,” “should,” “expect,” “anticipate,” “estimate,” “believe,” “intend,” or “project” or the negative of these words or other variations on these words or comparable terminology. This information may involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from the future results, performance, or achievements expressed or implied by any forward-looking statements. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under “Risk Factors” and matters described in this prospectus generally. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this prospectus will in fact occur.

### WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy these reports, proxy statements and other information at the public reference facilities maintained by the SEC at Room 1204, Judiciary Plaza, 450 Fifth Street, N.W. Washington, D.C. 20549 and you can obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet Web site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding issuers, like Derma Sciences, that file electronically with the SEC. Additional information about Derma Sciences can also be found at our Web site at <http://www.dermasciences.com>.

The SEC allows us to “incorporate by reference” the information from the documents we file with them which means that we can disclose important information to you by referring you to those documents. The information which we incorporate by reference is part of this prospectus. Additional information that we file with the SEC will automatically update previous information. We incorporate the following documents by reference into this prospectus:

- (a) Our registration statement on Form 8-A effective May 13, 1994.
- (b) Our annual report on Form 10-K filed March 29, 2011 for the year ended December 31, 2010.
- (c) Our notice of annual meeting of shareholders and definitive proxy statement filed April 5, 2011.
- (d) Our quarterly report on Form 10-Q filed May 11, 2011 for the quarter ended March 31, 2011.
- (e) Our current reports on Form 8-K filed on February 3, 2011 and June 21, 2011.

All documents filed by Derma Sciences pursuant to Section 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the filing of a post effective amendment to the registration statement which indicates that all securities offered by this registration statement have been sold, or which deregisters all securities then remaining unsold, are incorporated by reference into this prospectus from the date of filing of these

documents. Any statement contained in this prospectus or in a document incorporated in this prospectus by reference will be considered modified or replaced for purposes of this prospectus if the statement is modified or replaced by a statement in a later document that also is incorporated by reference in this prospectus.

This prospectus is part of a registration statement we filed with the SEC under the Securities Act of 1933. As permitted by the rules and regulations of the SEC, this prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules that were filed with it. The statements contained in this prospectus as to the contents of any contract or any other document are not necessarily complete. We qualify any statement by reference to the copy of the contract or document filed as an exhibit to the registration statement. If you would like a copy of any document incorporated in this prospectus by reference (other than exhibits unless these exhibits are specifically incorporated by reference in a document), you can call or write to us at our principal executive offices, Attention: John E. Yetter, CPA, Vice President and Chief Financial Officer, at 214 Carnegie Center, Suite 300, Princeton, New Jersey 08540, telephone (609) 514-4744. We will provide this information upon written or oral request and without charge to any person, including a beneficial owner, to whom a copy of this prospectus is delivered.

We have not authorized any dealer, salesperson or other individual to give any information or to make any representation not contained or incorporated by reference in this prospectus. If you receive any of that kind of information or if any of those types of representations are made to you, you must not rely on the information or representations as having been authorized by Derma Sciences. Also, you must not consider that the delivery of this prospectus or any sale made under it implies that the affairs of Derma Sciences have remained unchanged since the date of this prospectus or that the information contained in this prospectus is correct or complete as of any time after the date of this prospectus.

This prospectus and any supplement to this prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities covered by this prospectus to any person in any jurisdiction in which this offer or solicitation is unlawful.

#### USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock by the selling shareholders. We will, however, receive funds from the exercise of the warrants held by the selling shareholders, if exercised for cash. The Company expects to use any proceeds from the exercise of the warrants for working capital. The selling shareholders will pay any underwriting discounts and commissions and expenses incurred by the selling shareholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares of our common stock covered by this prospectus, including, without limitation, all registration and filing fees, NASDAQ Capital Market additional listing fees, if any, and the fees and expenses of our legal counsel and accountants.

#### SELLING SHAREHOLDERS

On June 24, 2011, we privately sold to 18 investors 3,524,239 shares of our common stock at \$8.25 per share (the "Common Stock"). Investors also received a five-year warrant to purchase one share of common stock at an exercise price per share of \$9.90 (the "Warrants") in the ratio of one warrant for each two shares of Common Stock purchased. The number of shares of common stock issuable to the selling shareholders upon exercise of the Warrants (the "Underlying Common Stock") is 1,762,118 shares. The term "selling shareholders" refers to the investors who participated in the June 24, 2011 sale of the Common Stock and Warrants. At the time of acquisition of the Common Stock and Warrants, no selling shareholder had any agreements or understandings, directly or indirectly, with any person relative to distribution of these securities.

We agreed with the selling shareholders to use our best efforts to register the Common Stock and Underlying Common Stock and keep the registration statement effective until the earlier of (1) such time as all of the Common

Stock and Underlying Common Stock have been disposed of pursuant to and in accordance with the registration statement, or (2) the date on which the Common Stock and Underlying Common Stock may be sold pursuant to Rule 144(b)(1)(i) of the Securities Act. We do not know whether and when the selling shareholders will sell all or any of these securities.



The following table presents information regarding the selling shareholders' ownership of our common stock as of the date of this prospectus. We determine each selling shareholder's pre-offering ownership by assuming that all warrants held by the selling shareholder have been exercised. We determine each selling shareholder's post-offering ownership by assuming that all of the shares offered by this registration statement are sold and that no other shares are sold. No selling shareholder has had any position, office or other material relationship with Derma Sciences, or any of its affiliates, during the past three years other than as an owner of our securities:

| Selling Shareholders/<br>Beneficial Owners (1)  | Shares<br>Beneficially<br>Owned | Shares<br>Offered<br>Hereby | Shares<br>to be Owned<br>After<br>Offering | Percentage of<br>Outstanding Shares<br>to be Owned After<br>Offering |
|---|---------------------------------|-----------------------------|--|--|
| Jennison Global Healthcare Master Fund, Ltd.  | 150,000                         | 150,000 (2)                 | 0  | 0.00%  |
| Prudential<br>Sector Funds, Inc. - Prudential Health Sciences Fund d/b/a Prudential Jennison Health Sciences Fund | 1,027,500                       | 1,027,500 (3)               | 0  | 0.00%  |
| Pacific Select Fund, Health Sciences Portfolio  | 172,500                         | 172,500 (4)                 | 0  | 0.00%  |
| Deerfield Special Situations Fund International, Limited<br>Attn: Darren Levine<br>Deerfield Management           | 554,544                         | 554,544 (5)                 | 0  | 0.00%  |
| Deerfield Special Situations Fund LP<br>Attn: Darren Levine<br>Deerfield Management                               | 354,546                         | 354,546 (6)                 | 0  | 0.00%  |
| RA Capital Healthcare Fund, LP<br>Attn: Peter Klchinsky<br>Manager<br>RA Capital Management, LLC                  | 586,908                         | 586,908 (7)                 | 0  | 0.00%  |
| Blackwell Partners LLC<br>Attn: Bart Brunk<br>Managing Member<br>Blackwell Partners LLC                           | 504,000                         | 504,000 (8)                 | 0  | 0.00%  |
| Consonance Capital Master Account LP<br>Attn: Kevin H. Livingston<br>Managing Director<br>Consonance Capital      | 545,454                         | 545,454 (9)                 | 0  | 0.00%  |

|                        |         |              |         |       |
|------------------------|---------|--------------|---------|-------|
| Raging Capital Fund LP | 585,678 | 133,026 (10) | 452,652 | 4.36% |
|------------------------|---------|--------------|---------|-------|

Attn: William C. Martin  
Managing Member  
Raging Capital Management, LLC

|   |           |              |         |       |
|---|-----------|--------------|---------|-------|
| Raging Capital Fund QP, LP<br>Attn: William C. Martin<br>Managing Member<br>Raging Capital Management, LLC              | 710,238   | 248,791 (11) | 461,447 | 4.45% |
| Hudson Bay Master Fund, Ltd.<br>Attn: Yoav Roth<br>Portfolio Manager<br>Hudson Bay Capital                              | 545,454   | 545,454 (12) | 0       | 0.00% |
| Dafna LifeSciences Select Ltd.<br>Attn: Nathan Fischel<br>Managing Member<br>DAFNA Capital Mgmt LLC                     | 90,546    | 79,200 (13)  | 11,346  | *     |
| Dafna LifeSciences Market Neutral Ltd.<br>Attn: Nathan Fischel<br>Managing Member<br>DAFNA Capital Mgmt LLC             | 20,033    | 17,700 (14)  | 2,333   | *     |
| Dafna LifeScience Ltd.<br>Attn: Nathan Fischel<br>Managing Member<br>DAFNA Capital Mgmt LLC                             | 42,461    | 39,463 (15)  | 2,998   | *     |
| Sandra F. Pessin  | 90,909    | 90,909 (16)  | 0       | 0.00% |
| Poptech, LP<br>Attn: Harvey L. Poppel<br>Partner  | 45,463    | 36,363 (17)  | 9,100   | *     |
| Endeavor Asset Management, L.P.<br>Attn: Patrick Tully<br>Managing Partner  | 18,181    | 18,181 (18)  | 0       | *     |
| Special Situations Life Sciences<br>Fund L.P.<br>Attn: David Greenhouse<br>Managing Director<br>Special Situations Fund | 181,818   | 181,818 (19) | 0       | 0.00% |
| Total Shares  | 6,226,233 | 5,286,357    | 939,876 |       |

\* Less than 1%

(1) The term “Beneficial Owners” refers to those entities and individuals that maintain voting and dispositive authority relative to the shares.

(2) Shares offered hereby consist of 100,000 shares of outstanding Common Stock and 50,000 shares of Common Stock issuable upon exercise of Series R Warrants. Jennison Associates LLC (“Jennison”) serves as investment manager with power to direct investments and/or power to vote the shares owned by this selling shareholder, as well as owned by certain other clients, and may be deemed to beneficially own the shares held by these entities. Jennison expressly disclaims ownership of such shares. Jennison is a wholly-owned subsidiary of Prudential Financial, Inc., which is a publicly-traded financial services company. The selling shareholder is an exempted company incorporated under the laws of the Cayman Islands whose shares are distributed by an affiliated broker-dealer that is a member of the Financial Industry Regulatory Authority (FINRA). Jennison represents that it has purchased these shares in the ordinary course of business and, at the time of purchase, with no arrangement or understanding, directly or indirectly, with any person regarding the distribution of such shares. By virtue of his position with Jennison, David Chan, Managing Director of Jennison and Portfolio Manager to this selling shareholder, has authority to vote or dispose of the shares held by this selling shareholder.

(3) Shares offered hereby consist of 685,000 shares of outstanding Common Stock and 342,500 shares of Common Stock issuable upon exercise of Series R Warrants. Jennison Associates LLC ("Jennison") serves as sub-adviser with power to direct investments and/or power to vote the shares owned by this selling shareholder, as well as shares owned by certain other clients, and may be deemed to beneficially own the shares held by these entities. Jennison expressly disclaims ownership of such shares. Jennison is a wholly-owned subsidiary of Prudential Financial, Inc., which is a publicly-traded financial services company. The selling shareholder is a mutual fund whose principal underwriter is an affiliated broker-dealer that is a member of the Financial Industry Regulatory Authority (FINRA). Jennison represents that it has purchased these shares in the ordinary course of business and, at the time of purchase, with no arrangement or understanding, directly or indirectly, with any person regarding the distribution of such shares. By virtue of their positions with Jennison, David Chan and Michael Del Balso, Managing Directors of Jennison and Portfolio Managers to this selling shareholder, have authority to vote or dispose of the shares held by this selling shareholder.

(4) Shares offered hereby consist of 115,000 shares of outstanding Common Stock and 57,500 shares of Common Stock issuable upon exercise of Series R Warrants. Jennison Associates LLC ("Jennison") serves as sub-adviser with power to direct investments and/or power to vote the shares owned by this selling shareholder, as well as shares owned by certain other clients, and may be deemed to beneficially own the shares held by these entities. Jennison expressly disclaims ownership of such shares. Jennison is a wholly-owned subsidiary of Prudential Financial, Inc., which is a publicly-traded financial services company. The selling shareholder is a mutual fund whose principal underwriter is an affiliated broker-dealer that is a member of the Financial Industry Regulatory Authority (FINRA). Jennison represents that it has purchased these shares in the ordinary course of business and, at the time of purchase, with no arrangement or understanding, directly or indirectly, with any person regarding the distribution of such shares. By virtue of their positions with Jennison, David Chan and Michael Del Balso, Managing Directors of Jennison and Portfolio Managers to this selling shareholder, have authority to vote or dispose of the shares held by this selling shareholder.

(5) Shares offered hereby consist of 369,696 shares of outstanding Common Stock and 184,848 shares of Common Stock issuable upon exercise of Series R Warrants.

(6) Shares offered hereby consist of 236,364 shares of outstanding Common Stock and 118,182 shares of Common Stock issuable upon exercise of Series R Warrants.

(7) Shares offered hereby consist of 391,272 shares of outstanding Common Stock and 195,636 shares of Common Stock issuable upon exercise of Series R Warrants.

(8) Shares offered hereby consist of 336,000 shares of outstanding Common Stock and 168,000 shares of Common Stock issuable upon exercise of Series R Warrants.

(9) Shares offered hereby consist of 363,636 shares of outstanding Common Stock and 181,818 shares of Common Stock issuable upon exercise of Series R Warrants.

(10) Shares offered hereby consist of 88,684 shares of outstanding Common Stock and 44,342 shares of Common Stock issuable upon exercise of Series R Warrants.

(11) Shares offered hereby consist of 165,861 shares of outstanding Common Stock and 82,930 shares of Common Stock issuable upon exercise of Series R Warrants.

(12) Shares offered hereby consist of 363,636 shares of outstanding Common Stock and 181,818 shares of Common Stock issuable upon exercise of Series R Warrants.

(13) Shares offered hereby consist of 52,800 shares of outstanding Common Stock and 26,400 shares of Common Stock issuable upon exercise of Series R Warrants.

(14) Shares offered hereby consist of 11,800 shares of outstanding Common Stock and 5,900 shares of Common Stock issuable upon exercise of Series R Warrants.

(15) Shares offered hereby consist of 26,309 shares of outstanding Common Stock and 13,154 shares of Common Stock issuable upon exercise of Series R Warrants.

(16) Shares offered hereby consist of 60,606 shares of outstanding Common Stock and 30,303 shares of Common Stock issuable upon exercise of Series R Warrants.

(17) Shares offered hereby consist of 24,242 shares of outstanding Common Stock and 12,121 shares of Common Stock issuable upon exercise of Series R Warrants.

(18) Shares offered hereby consist of 12,121 shares of outstanding Common Stock and 6,060 shares of Common Stock issuable upon exercise of Series R Warrants.

(19) Shares offered hereby consist of 121,212 shares of outstanding Common Stock and 60,606 shares of Common Stock issuable upon exercise of Series R Warrants.

## PLAN OF DISTRIBUTION

The selling shareholders, including donees, pledgees, transferees or other successors-in-interest selling shares of Common Stock or Underlying Common Stock (collectively, the “Registered Shares”) received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their Registered Shares on any stock exchange, market or trading facility on which the Registered Shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. To the extent any of the selling shareholders gift, pledge or otherwise transfer the Registered Shares, such transferees may offer and sell the Registered Shares from time to time under this prospectus, provided that this prospectus has been amended under Rule 424(b)(3) or other applicable provision of the Securities Act to include the name of such transferee in the list of selling shareholders under this prospectus.

The selling shareholders may use any one or more of the following methods when disposing of Registered Shares:

- Ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- Block trades in which the broker-dealer will attempt to sell the Registered Shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
  - Purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
  - An exchange distribution in accordance with the rules of the applicable exchange;
  - Privately negotiated transactions;
  - Short sales;
- Through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
  - A combination of any such methods of sale; and
  - Any other method permitted pursuant to applicable law.

The selling shareholders may, from time to time, pledge or grant a security interest in some or all of the Registered Shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the Registered Shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus.

In connection with the sale of the Registered Shares, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Registered Shares in the course of hedging the positions they assume. The selling shareholders may also sell shares of our common stock short and deliver the Registered Shares to close out their short positions, or loan or pledge the Registered Shares to broker-dealers that in turn may sell same. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of Registered Shares which such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).





The aggregate proceeds to the selling shareholders from the sale of the Registered Shares offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling shareholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of Registered Shares to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the Warrants by payment of cash, however, we will receive the exercise price of the Warrants.

The selling shareholders also may resell all or a portion of the Registered Shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

We have advised the selling shareholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of Registered Shares in the market and to the activities of the selling shareholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling shareholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling shareholders may indemnify any broker-dealer that participates in transactions involving the sale of the Registered Shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling shareholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the Registered Shares.

#### LEGAL MATTERS

The validity and non-assessability of the shares offered in this prospectus will be passed upon for us by Thompson Hine, LLP, New York, New York.

#### EXPERTS

The consolidated financial statements of Derma Sciences, Inc. as of December 31, 2010 and for the year then ended have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein and upon the authority of said firm as experts in accounting and auditing.

The consolidated financial statements of Derma Sciences, Inc. as of and for the year ended December 31, 2009 appearing in Derma Sciences, Inc.'s annual report on Form 10-K for the year ended December 31, 2010 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

#### INTEREST OF NAMED EXPERTS AND COUNSEL

Attorneys with Thompson Hine, LLP, as of the date of this prospectus, do not own any shares of our common stock.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR  
SECURITIES ACT LIABILITIES

Sections 1741 and 1742 of the Pennsylvania Business Corporation Law of 1988 empower us, and our bylaws provide that we shall have the power, to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of the fact that he is or was a director, officer, employee or agent of us, or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in, or in the case of actions undertaken other than in his official capacity, not opposed to, our best interest, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful; except that, in the case of an action or suit by or in the right of us no indemnification may be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable for negligence or misconduct in the performance of his duty to us unless and only to the extent that the court in which such action or suit was brought shall determine that such person is fairly and reasonably entitled to indemnity for proper expenses.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Derma Sciences, Inc.

5,286,357 Shares of  
Common Stock

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PROSPECTUS

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July 21, 2011