

DERMA SCIENCES, INC.  
Form 424B3  
May 20, 2011  
Filed Pursuant to 424(b)(3)  
Registration File No. 333-173870

PROSPECTUS

\$50,000,000

Derma Sciences, Inc.

Common Stock  
Warrants

From time to time, we may offer any combination of the securities described in this prospectus, either individually or in units. We may also offer common stock upon the exercise of warrants. Such securities may be offered and sold by us in one or more offerings with an initial purchase price not to exceed \$50,000,000.

This prospectus provides a general description of the securities that may be offered. We will provide specific information and the terms of the securities being offered in supplements to this prospectus. The supplements may also add, update or change information in this prospectus. Please read this prospectus and any prospectus supplements together with any documents incorporated by reference carefully before investing. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

The aggregate market value of our outstanding common stock held by non-affiliates is \$48,931,377 based on 6,738,849 shares of common stock outstanding, of which 5,689,695 shares are held by non-affiliates, and a per share value of \$8.60 based on the closing price of our common stock on the NASDAQ Capital Market on April 29, 2011. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

We may offer these securities directly to investors, through underwriters, dealers or agents, on a continuous or delayed basis. See "Plan of Distribution." Each prospectus supplement will provide the terms of the plan of distribution relating to each series of securities.

Our Common Stock is traded on the NASDAQ Capital Market under the ticker symbol "DSCI". On May 19, 2011 the closing price for the common stock as reported by NASDAQ was \$9.42.

Investing in our securities involves substantial risks that you should consider and that are described in our annual report on Form 10-K for the fiscal year ended December 31, 2010 under the heading "Item 1A. Risk Factors" beginning on page 10, and as described or may be described in any subsequent quarterly report on Form 10-Q 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 May 20, 2011.



## TABLE OF CONTENTS

	Page
About This Prospectus	2
Our Company	3
Risk Factors	3
Caution Regarding Forward Looking Statements	3
Where You Can Find More Information	4
Use of Proceeds	5
Description of Common and Preferred Stock	5
Description of Warrants	6
Plan of Distribution	7
Legal Matters	9
Experts	9
Interests of Named Experts and Counsel	9

## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may offer to sell the securities described in this prospectus in one or more offerings up to a total of \$50,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “Where You Can Find More Information.”

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

## OUR COMPANY

We are a specialty medical device/pharmaceutical company with a primary focus on wound care. We engage in the manufacture, marketing and sale of three proprietary dermatological related product lines: (1) wound care, (2) wound closure and specialty securement devices, and (3) skin care. In addition, we have leveraged our expanding manufacturing capabilities by building a growing private label/original equipment manufacture (“OEM”) business. 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. While we have our own direct selling organization, our products are principally sold through medical products supply distributors. We currently sell our products in the United States, Canada and select international markets. Our principal United States distribution facilities are located in St. Louis, Missouri, and Houston, Texas. In Canada and Europe, our products are distributed exclusively by 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.

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

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the specific risk factors discussed in the sections entitled “Risk Factors” contained in our annual report on Form 10-K for the fiscal year ended December 31, 2010 under the heading “Item 1A. Risk Factors” beginning on Page 10, and as described or may be described in any subsequent quarterly report on Form 10-Q under the heading “Item 1A. Risk Factors,” as well as in any applicable prospectus supplement and contained or to be contained in our filings with the SEC and incorporated by reference in this prospectus, together with all of the other information contained in this prospectus, or any applicable prospectus supplement. If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of the value of your investment.

## CAUTION REGARDING 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.

3

---

## 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 quarterly report on Form 10-Q filed May 11, 2011 for the quarter ended March 31, 2011.
- (d) Our notice of annual meeting of shareholders and definitive proxy statement filed April 5, 2011 relative to the election of directors, amendment of our stock option plan and ratification of the appointment of KPMG LLP as the Company’s independent registered public accounting firm for the year ending December 31, 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

Unless otherwise indicated in the applicable prospectus supplement, we anticipate that the net proceeds, if any, from the sale of the securities that we may offer under this prospectus and any accompanying prospectus supplement will be used primarily for working capital and general corporate purposes. Additional information on the use of net proceeds from the sale of securities covered by this prospectus will be set forth in prospectus supplements relating to specific offerings.

#### DESCRIPTION OF COMMON AND PREFERRED STOCK

Our authorized capital as of April 30, 2011 consists of: (1) 18,750,000 shares of common stock, \$0.01 par value per share, of which 6,738,849 shares are issued and outstanding, and (2) 1,468,750 shares of preferred stock, \$0.01 par value per share, of which 284,844 are issued and outstanding.

Each holder of common stock is entitled to receive ratable dividends, if any, as may be declared by our board of directors out of funds legally available for the payment of dividends. We have not paid any dividends on our common stock and none are contemplated in the foreseeable future. We anticipate that all earnings that may be generated from our operations will be used to finance our growth.

Holders of common and preferred stock are entitled to one vote for each share held of record. Holders of our common stock may cumulate their votes for the election of our directors. That is, holders of our common stock may multiply the number of shares owned by the number of directors standing for election and cast the resulting number of votes for a single director-nominee or divide the resulting number of votes among two or more director-nominees.

With respect to any matter, other than the election of directors or a matter for which the affirmative vote of the holders of a specified portion of the shares entitled to vote is required by the Pennsylvania Business Corporation Law of 1988, the affirmative vote of the holders of a majority of the common and preferred shares represented and entitled to vote on the matter at a meeting at which a quorum is present is required to take action. A quorum is a majority of the aggregate number of shares of common stock and preferred stock issued and outstanding as of the record date of the subject meeting. Directors are elected by a plurality of the votes cast by the holders of shares entitled to vote in the election of directors at a meeting of shareholders at which a majority is present.

The holders of our common stock have no preemptive, subscription, conversion or redemption rights. The holders of our preferred stock have no preemptive or subscription rights. However, these holders may, at any time, convert their preferred shares into common shares on a 1-for-1 basis. In addition, upon our merger, acquisition, liquidation, dissolution or winding-up, the holders of our preferred stock are entitled to receive a liquidation preference in the amount of the purchase price of their preferred shares and no other proceeds or dividends whatsoever. The preferred stock liquidation preference is currently \$4,201,426. Upon payment of the preferred stock liquidation preference, holders of our common stock are entitled to receive, pro rata, the balance of all consideration paid or distributable upon our merger, acquisition, liquidation, dissolution or winding-up.

## DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock in one or more series. We may issue warrants independently or together with common stock and the warrants may be attached to or separate from the common stock. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

- The offering price and aggregate number of warrants offered;
- The number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
  - If applicable, the date on and after which the warrants and the related securities will be separately transferable;
- The effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- The terms of our rights to redeem the warrants;
- Any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
  - The dates on which the right to exercise the warrants will commence and expire;
  - The manner in which the warrant agreements and warrants may be modified;
- A discussion of any material U.S. federal income tax consequences of holding or exercising the warrants; and
  - Any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Each warrant will entitle the holder to purchase the common stock that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After such time on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth in the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, the warrants may be exercised on a cashless or “net exercise” basis.

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania and the federal laws of the United States applicable therein.

#### PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus in any one or more of the following ways from time to time:

• Directly to investors in privately negotiated transactions or through a specific bidding, auction, other process or otherwise;

- To investors through agents;
- Directly to agents;
- To or through brokers or dealers;
- To the public through underwriting syndicates led by one or more managing underwriters;
- To one or more underwriters acting alone for resale to investors or to the public; or
- Through a combination of any such methods of sale.

We may also sell the securities offered by this prospectus in “at the market offerings” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise.

The prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- The name or names of any underwriters, dealers or agents;
- The purchase price of the securities and the proceeds to us from the sale;
- Any over-allotment options under which the underwriters may purchase additional securities from us;
- Any underwriting discounts and other items constituting compensation to underwriters, dealers or agents;
- Any public offering price;
- Any discounts or concessions allowed or reallocated or paid to dealers; or
- Any securities exchange or market on which the securities offered in the prospectus supplement may be listed.

Only those underwriters identified in such prospectus supplement are deemed to be underwriters in connection with the securities offered in the prospectus supplement. Any underwritten offering may be on a best efforts or a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at varying prices determined at the time of sale, or at prices determined as the applicable prospectus supplement specifies. The securities may be sold through a rights offering, forward contracts or similar arrangements. In any distribution of subscription rights to stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent.

We will provide in the applicable prospectus supplement information regarding any underwriting discounts or other compensation that we pay to underwriters or agents in connection with the securities offering, and any discounts, concessions or commissions which underwriters allow to dealers. Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts and commissions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

There is currently no market for any of the offered securities other than the common stock which is listed on the NASDAQ Capital Market. Any common stock sold pursuant to a prospectus supplement will be listed on the NASDAQ Capital Market. It is possible that one or more underwriters may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of, or the trading market for, any offered securities.

In connection with an offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress. The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. Underwriters may engage in over-allotment. If any underwriters create a short position in the securities in an offering in which they sell more securities than are set forth on the cover page of the applicable prospectus supplement, the underwriters may reduce that short position by purchasing the securities in the open market.

Underwriters, dealers or agents that participate in the offer of securities, or their affiliates or associates, may have engaged or engage in transactions with and perform services for, us or our affiliates in the ordinary course of business for which they may have received or receive customary fees and reimbursement of expenses.

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc. ("FINRA"), the maximum discount or commission to be received by any FINRA member or independent broker-dealer may not exceed 8% of the aggregate offering price of the shares offered hereby. The plan of distribution set forth in the prospectus supplement relating to any specific offering of securities covered by this prospectus shall include appropriate disclosure addressing compliance with FINRA Conduct Rule 2720 and any such offering shall be conducted in compliance with Rule 2720.

## LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the legality of the issuance of the shares offered in this prospectus will be passed upon for us by Hedger & Hedger, Hershey, Pennsylvania. Hedger & Hedger may also provide opinions regarding certain other matters. If legal matters in connection with offerings made pursuant to this prospectus are passed upon by counsel to underwriters, dealers or agents, such counsel will be named in the prospectus supplement related to such offering.

## 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 Hedger & Hedger own as of the date of this prospectus 2,313 shares of our common stock and exercisable options to purchase 39,375 shares of our common stock.

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission. You should rely only on the information or representations contained in this prospectus and any accompanying prospectus supplement. We have not authorized anyone to provide information other than that provided in this prospectus and any accompanying prospectus supplement. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any accompanying prospectus supplement is accurate as of any date other than the date on the front of the document.

\$50,000,000

Common Stock

Warrants

Derma Sciences, Inc.

The date of this prospectus is May 20, 2011

PROSPECTUS