

PROSPECTUS

# MARSHALL EDWARDS, INC.

## 835,217 Shares of Common Stock

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This prospectus relates to the resale of up to 835,217 shares of our common stock.

These shares will be resold from time to time by the investors listed in the section titled “Selling Stockholders” on page 16, which we refer to as the selling stockholders. The shares of common stock offered under this prospectus by the selling stockholders have been issued to the selling stockholders pursuant to the Amended and Restated Securities Purchase Agreement by and among Marshall Edwards, Inc. and the selling stockholders, dated as of May 16, 2011 (the “May 16 Purchase Agreement”). We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of securities by the selling stockholders.

The selling stockholders may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how a selling stockholder may sell its shares of common stock and warrants in the section titled “Plan of Distribution” on page 19. ROTH Capital Partners, LLC acted as the sole placement agent for the transaction and, in such capacity, received a cash fee of 7% of the gross proceeds of the transaction, and warrants to purchase shares of common stock equal to 7% of the number of shares of common stock issued in the private placement, including any shares issued upon exercise of the Series B Warrants described herein. We will pay the expenses incurred in registering the securities covered by the prospectus, including legal and accounting fees.

Our common stock is listed on The NASDAQ Capital Market, or NASDAQ, under the symbol “MSHL.” On August 9, 2011, the last reported sale price of our common stock was \$1.53 per share.

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**Investing in our securities involves risks. See “[Risk Factors](#)” beginning on page 7 of this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is August 15, 2011.

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Unless we have indicated otherwise, references in this prospectus to “Marshall Edwards,” “we,” “us” and “our” or similar terms are to Marshall Edwards, Inc., a Delaware corporation, and its consolidated subsidiary, Marshall Edwards Pty Limited. References in this prospectus to “Novogen” refer to Novogen Limited and its consolidated subsidiaries, other than Marshall Edwards, Inc. and its subsidiary. References in this prospectus to “FDA” refer to the United States Food and Drug Administration.

As we describe in the sections entitled “Incorporation of Certain Information by Reference” and “Where You Can Find More Information,” we have filed and plan to continue to file other documents with the SEC that contain information about us. Before you decide whether to invest in our securities, you should read this prospectus and the information we otherwise file with the SEC.

The registration statement that contains this prospectus, including the exhibits to the registration statement, contains additional information about us and the securities being offered under this prospectus. You should read the registration statement and the accompanying exhibits for further information. The registration statement and exhibits can be read and are available to the public over the Internet at the SEC’s website at <http://www.sec.gov>.

You should rely only on the information contained or incorporated by reference into this prospectus. We have not, and the selling stockholders have not, authorized anyone to provide you with additional or different information. These securities are not being offered in any jurisdiction where the offer is not permitted. You should assume that the information in this prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or of any sale of our common stock.

## PROSPECTUS SUMMARY

*The following is only a summary. We urge you to read the entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information included herein or incorporated by reference from our other filings with the U.S. Securities and Exchange Commission (SEC). Investing in our securities involves risks. Therefore, please carefully consider the information provided under the heading “Risk Factors” starting on page 7.*

### **The Company**

We are Marshall Edwards, a development stage oncology company incorporated in December 2000 as a wholly-owned subsidiary of Novogen Limited (“Novogen”). Our common stock is listed on the Nasdaq Capital Market under the symbol “MSHL”. As of August 9, 2011, Novogen owned approximately 56.6% of the outstanding shares of our common stock.

Our business purpose is the development of drugs for the treatment of cancer. We are currently focused on the clinical development of our two lead isoflavone-based drug candidates which we acquired in the Isoflavone Transaction (as defined below) on May 9, 2011, and prior to the consummation of such transaction had licensed from a subsidiary of Novogen. Upon consummation of the Isoflavone Transaction, these license agreements, and our other agreements with Novogen, were terminated.

We believe that our existing cash balances, which were approximately \$4.9 million as of March 31, 2011, together with the net proceeds from our private placement of common stock and warrants, as described in our Current Report on Form 8-K filed with the SEC on May 16, 2011, which was consummated on May 18, 2011, will be sufficient to fund our operations until early 2012.

Changes in our research and development plans or other changes affecting our operating expenses may affect actual future use of existing cash resources. In any event, however, we will need additional financing to fund our operations in the future including the continued development of our two lead drug candidates. We intend to pursue one or more capital raising transactions to further develop our drug candidates.

### **Clinical Product Development Programs**

#### *Program 1: NADH Oxidase Inhibitors*

Our first and most advanced program is a family of compounds that includes Phenoxodiol, a first-generation compound that has been well tolerated in more than 400 patients, and a next-generation compound called NV-143. NV-143 in particular has demonstrated robust anti-tumor activity in pre-clinical studies.

#### *First Generation: Phenoxodiol*

Phenoxodiol has been administered to more than 400 patients via oral or intravenous routes and appears to be well tolerated with low toxicity. In June 2010, we unblinded the results of our randomized OVATURE trial of orally administered Phenoxodiol in combination with platinum-based chemotherapy in women with recurrent ovarian cancer. The trial was closed in April 2009 with 142 out of a planned 340 patients enrolled. The final analysis determined that the trial did not show a statistically significant improvement in either its primary (progression-free survival) or secondary (overall survival) endpoints. In this trial, less than 1% of patients (one out of 142) achieved a clinical response in either arm, suggesting that in this patient population, Phenoxodiol does not overcome platinum-resistance when administered orally.

In a Phase II clinical trial of intravenously administered Phenoxodiol in combination with platinum-based chemotherapy in patients with similar disease characteristics and prior treatment regimens to those enrolled in the OVATURE study, a clinical response was observed in 30% of patients (six out of 20).

Pharmacokinetic studies suggest that significantly higher levels of active drug are measured when isoflavone compounds are administered intravenously versus the oral route. As a result of these findings, we intend to pursue the clinical development of our next-generation compounds using an intravenous formulation.

*Next Generation: NV-143*

NV-143 is the primary metabolite of Triphendiol, a second-generation derivative of Phenoxodiol. Pre-clinical studies show that NV-143 demonstrates enhanced anti-tumor activity against a broad range of tumor cell lines when used alone or in combination with platinum-based chemotherapy when compared to both Phenoxodiol and Triphendiol.

As a result, NV-143 has been selected as the lead product candidate for this program. We are completing drug manufacturing and non-clinical safety studies of NV-143 and currently expect to initiate a Phase I safety trial during the third quarter of 2011, followed immediately thereafter by randomized Phase II studies in combination with chemotherapy.

Program 2: Mitochondrial Inhibitors

Our second program is a family of compounds that includes NV-128, a first-generation compound that has shown activity against a broad range of cancer cell lines, and a next-generation compound called NV-344 that appears to be more active than NV-128 in pre-clinical studies.

*First Generation: NV-128*

NV-128 is an investigational cancer compound which has been shown in pre-clinical laboratory studies to promote cancer cell death by disrupting mitochondrial function leading to the inhibition of regulatory pathways (i.e., AKT-mTOR pathway) in cancer cells that have become resistant to various chemotherapeutic drugs. Structurally, NV-128 is an analogue of Phenoxodiol, but in contrast uses different molecular mechanisms to promote the death of cancer cells.

In September 2009, we released data demonstrating that the efficacy of NV-128 in animal xenograft models is achieved without apparent toxicity. NV-128 is a novel mitochondrial inhibitor, capable of inhibiting both mTORC1 and mTORC2 protein regulatory pathways which are suggested to be central to the aberrant proliferative capacity of both mature cancer cells and cancer stem cells. Laboratory data in mice bearing human ovarian cancer xenografts demonstrated that NV-128 may have greater safety than some other mTOR inhibitors. Additional data released reported that NV-128 was judged to be without cardiac toxicity in laboratory studies.

NV-128 has shown activity in pre-clinical models against a broad range of cancers, including KRAS-mutant, Tarceva-resistant non-small cell lung cancer cell lines. Results from an ongoing study conducted in collaboration with Dr. Gil Mor, an oncologist at the Yale School of Medicine, demonstrate that NV-128 is active against all chemotherapy-resistant ovarian tumor cells tested to date.

In November 2010, Dr. Ayesha Alvero from the Department of Obstetrics, Gynecology, and Reproductive Sciences at the Yale School of Medicine presented data from a pre-clinical study of NV-128 demonstrating its ability to induce mitochondrial instability, ultimately leading to cell death in chemotherapy-resistant ovarian cancer stem cells. The data were reported at the 1st World Congress on Targeting Mitochondria in Berlin. In April 2011, Dr. Alvero presented an abstract highlighting our mitochondrial inhibitor program at the American Association for Cancer Research Annual Meeting in Orlando.

*Next Generation: NV-344*

We have identified a potential natural metabolite of NV-128 in a compound we call NV-344. In preliminary studies, NV-344 has demonstrated enhanced activity against a panel of human tumor cell lines as compared to NV-128. We have begun drug manufacturing of NV-344, after which we currently plan to conduct the necessary pre-clinical animal toxicity studies to initiate a Phase I trial during the first quarter of 2012.

**Corporate Information**

Our principal executive offices are located at 11975 El Camino Real, Suite 101, San Diego, California, 92130, and our phone number is (858) 792-6300.

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As of August 9, 2011, we had 9,256,089 shares of common stock outstanding. In addition, we have 1,000 shares of Series A Convertible Preferred Stock outstanding, which are initially convertible into an aggregate of 4,827,000 shares of our common stock, which conversion ratio may increase upon our achievement of certain development milestones. For a description of our Series A Convertible Preferred Stock, please see our Current Report on Form 8-K/A filed with the SEC on May 13, 2011. In addition to the Series A and Series B Warrants issued in the private placement on May 18, 2011 described below, as of August 9, 2011, there were outstanding warrants to purchase 248,003 shares of our common stock at exercise prices from \$21.70 to \$36.00 per share, which expire at various dates in calendar years 2012 and 2013, and 734,715 options to purchase shares of common stock at exercise prices from \$0.77 to \$6.30 per share, which expire at various dates in calendar years 2014, 2015 and 2016.

**Private Placement of Common Shares and Warrants**

On May 18, 2011, we raised approximately \$650,000 in net proceeds, after deducting placement agent fees and other offering expenses, in connection with the closing of a private placement for the sale of our common stock and warrants to purchase our common stock to certain investors named in the table in the section of this prospectus entitled "Selling Stockholders" pursuant to the May 16 Purchase Agreement, consisting of the following:

- 835,217 shares of our common stock, at a purchase price of \$1.333 per share;
- Series A warrants (the "Series A Warrants"), which represent the right to purchase up to 626,413 shares of our common stock, which number of shares issuable upon exercise of such Series A Warrants shall increase by up to 1,624,151 shares to an aggregate of 2,250,564 shares upon the exercise of the Series B Warrants (as defined below) upon the terms described below; and
- Series B warrants (the "Series B Warrants", and collectively with the Series A Warrants, the "Warrants") which represent the right to purchase up to 2,165,534 shares of our common stock.

In addition, we agreed to issue to the private placement investors, additional shares of our common stock ("Adjustment Shares") to the extent the applicable price, calculated as described below, of our common stock is below \$1.333 per share on certain dates ("Adjustment Dates") during the period ending on June 26, 2012, including as a result of a subsequent offering of our securities at a price below \$1.333. The number of Adjustment Shares issuable is initially limited to 649,242, subject to proportionate increases to the extent the Series B Warrants have been exercised prior to an applicable Adjustment Date, up to a maximum of 2,332,583 shares.

As of August 9, 2011, Series B Warrants for 375,000 shares of common stock had been exercised for an aggregate purchase price of \$341,250.

In connection with the private placement we also entered into an amended and restated registration rights agreement, dated as of May 16, 2011 (the "Amended Registration Rights Agreement") with the investors.

Pursuant to the terms of the Amended Registration Rights Agreement, we granted to the investors certain registration rights related to the shares of common stock sold in the private placement, including the shares to be acquired upon exercise of the Series A and B Warrants. This registration statement is being filed pursuant to the Amended Registration Rights Agreement. We may incur liquidated damages if we do not meet our registration obligations under the Amended Registration Rights Agreement, as further described under "Plan of Distribution". We also agreed to other customary obligations regarding registration, including indemnification and maintenance of the registration statement.

The shares of common stock, the Series A and B Warrants and the Adjustment Shares were offered and sold in a private placement transaction exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance upon Section 4(2) under the Securities Act and Regulation D promulgated thereunder. Each of the investors represented to us that it is an "accredited investor" as defined in Rule 501 of Regulation D.

#### **Series A and B Warrants**

The Series A Warrants will be exercisable, on a cash or cashless basis, any time on or after the six month anniversary of the closing of the private placement at an initial exercise price of \$1.57 per share, subject to adjustment as provided in the Series A Warrants, including for the issuance after entering into the May 16 Purchase Agreement of shares for consideration, or the granting of options with an exercise price, below or deemed below the exercise price of the Series A Warrants. However, until July 25, 2011, the 20th calendar day after we mailed a definitive information statement to our stockholders (the "Stockholder Approval Effectiveness Date") notifying them of the Stockholder Approval (as defined below), the exercise price for the Series A Warrants could not be less than \$1.57 per share. The number of shares of common stock issuable upon exercise of the Series A Warrants will be increased by an amount equal to 75% of the number of shares of common stock issued upon each exercise of the Series B Warrants, up to a maximum of 1,624,151 additional shares of common stock, for an aggregate of 2,250,564 shares of common stock issuable upon exercise of the Series A Warrants. As of August 9, 2011, Series B Warrants for 375,000 shares of common stock had been exercised resulting in Series A Warrants becoming exercisable for an additional 281,250 shares of common stock. The Series A Warrants will expire on the fifth anniversary of the date on which the Series A Warrants first become exercisable.

The Series B Warrants will be exercisable, solely on a cash basis, by the holders at any time on or after the first date on which all of the following conditions are satisfied (or, in the case of clause (ii) or (iii), waived by the holder): (i) the Stockholder Approval Effectiveness Date has occurred, (ii) all of the shares of common stock issuable upon exercise of the Series B Warrants are able to be resold without restriction or limitation pursuant to an effective registration statement and (iii) all of the 835,217 shares of common stock sold in the private placement, the shares of our common stock issuable upon exercise of the Series A and B Warrants and the Adjustment Shares are able to be resold without restriction or limitation pursuant to an effective registration statement or Rule 144 under the Securities Act. The initial exercise price per share of the Series B Warrants is equal to the lower of (i) \$1.333, and (ii) 85% of the arithmetic average of the lowest eight weighted average prices of our common stock during the 20 consecutive trading day period (a) in the case of a voluntary exercise by the holders, ending on the trading day immediately preceding the date of delivery of a notice of exercise, and (b) in the case of the required exercise discussed below, immediately following the fifth trading day following the date of delivery of a notice of such required exercise. We may require the holders to exercise their Series B Warrants in the event of satisfaction of the conditions set forth in the first sentence of this paragraph, as well as certain other equity conditions, including certain minimum trading volume requirements. The Series B Warrants will expire on the first anniversary of the May 18, 2011 closing of the private placement. As noted above, as of August 9, 2011, Series B Warrants for 375,000 shares of common stock had been exercised.

The Series A and Series B Warrants contain anti-dilution protection upon the issuance of any common stock, securities convertible into common stock, or certain other issuances at a price below the then-existing exercise price of the warrants, with certain exceptions. The warrants contain limitations that prevent the acquisition of shares upon exercise of a warrant, which would result in the number of shares beneficially owned by the recipient and its affiliates exceeding 9.99%. In addition, upon certain changes in control of our Company, the holder of a Series A and Series B Warrant can elect to receive, subject to certain limitations and assumptions, cash equal to the Black-Scholes value of the outstanding warrants.

**Adjustment Shares**

In addition, subject to occurrence of the Stockholder Approval Effectiveness Date, we have agreed to issue to investors in the private placement Adjustment Shares to the extent the applicable price of our common stock, calculated as described below, is below \$1.333 per share, but greater than or equal to \$0.75 per share, on certain Adjustment Dates during the period ending June 26, 2012, including as a result of a subsequent offering of our securities at a price below \$1.333. The number of Adjustment Shares issuable were initially limited to 649,242, subject to proportionate increases to the extent the Series B Warrants have been exercised prior to an applicable Adjustment Date, up to a maximum of 2,332,583 shares. If the applicable price based on the trading price of our common stock is below \$0.75 per share on any Adjustment Date, we will, in addition to issuing the applicable number of Adjustment Shares, refund to the private placement investors an amount in cash per share of common stock purchased by such investor in the private placement based on the difference between \$0.75 and the applicable price of the common stock on such Adjustment Date.

The initial Adjustment Date for the issuance of Adjustment Shares will be the date that is the 26th trading day after the earliest of (1) the date that all 835,217 shares of common stock issued on May 18, 2011 and all shares of common stock issuable upon exercise of the Series A and B warrants (collectively, "Registrable Securities") and the Adjustment Shares have been registered pursuant to an effective registration statement that is available for the resale of all such Registrable Securities and Adjustment Shares, (2) the date that the holder can sell all of the Adjustment Shares pursuant to Rule 144 without any restrictions or limitations and (3) the six-month anniversary of the May 18, 2011 closing of the private placement. If, following the initial Adjustment Date, we fail to maintain the effectiveness of any such registration statement or the public information required by Rule 144 during a period of 60 days after the prior Adjustment Date, there may be either one or two additional Adjustment Dates. The applicable price with respect to an Adjustment Date will be equal to 85% of the eight lowest volume-weighted average daily prices of our Common Stock during the 20 trading days immediately following the fifth trading day after the trigger date for such Adjustment Date. In addition, a number of Adjustment Shares will be issuable, subject to limitations on the number of Adjustment Shares described above, upon a subsequent issuance of our securities at a price below \$1.333 during the 13-month period following the May 18, 2011 closing of the private placement, in an amount based on the lowest deemed consideration per share in such transaction.

The Adjustment Shares are subject to customary anti-dilution provisions. No Adjustment Shares are permitted to be issued to the extent the recipient's beneficial ownership of our common stock would exceed 9.99%.

**Placement Agent Warrants**

Upon the closing of the private placement, we also issued to Roth Capital Partners, as placement agent, warrants for the purchase of an amount of common stock equal to 7% of the number of shares of common stock issued and sold in the private placement, which warrants are exercisable on the same terms, including as to the increase in the number of shares of common stock issuable upon exercise, as the Series A Warrants, and paid a cash fee equal to 7% of the gross proceeds of the private placement.

**Lock-up Agreements; Restrictions on Additional Offerings**

In connection with the May 16 Purchase Agreement, Novogen and each of our officers and directors entered into amended and restated lock-up agreements (the "Amended Lock-up Agreements") pursuant to which such person has agreed not to sell, transfer or otherwise dispose of any shares of our common stock or securities convertible or exchangeable for shares of our common stock owned by such person until, in the case of Novogen, December 24, 2011, and, in the case of our officers and directors, until the earlier of (i) 90 days after the date on which all of the securities required to be registered pursuant to the Amended Registration Rights Agreement, as well as the Adjustment Shares, have either been registered pursuant to an effective registration statement or can be sold pursuant to Rule 144 without any restrictions or limitations, and (ii) the date that is thirteen months after May 18, 2011.

We have also agreed generally not to make any further offers or sales of any of our equity securities until the earlier of (i) 90 days after the date on which all of the Registrable Securities required to be registered pursuant to the Amended Registration Rights Agreement have been so registered and (ii) the date that is thirteen months after May 18, 2011. However, certain offers and sales are excluded from the foregoing restriction, including the offer and sale of a specified amount of additional shares of our common stock and warrants to purchase shares of our common stock (an "Allowed Subsequent Placement") during the period beginning on the later of (a) 120 days after May 18, 2011, and (b) the earlier of the date on which the 835,217 shares of common stock issued in the private placement have been registered pursuant to an effective registration statement or can be sold pursuant to Rule 144 without any restrictions or limitations.

**Stockholder Approval**

As a result of our listing on The NASDAQ Capital Market, issuances of our common stock are subject to the NASDAQ Marketplace Rules, including Rule 5635(d). On May 18, 2011, we issued 835,217 shares of our common stock and warrants, as described above, to the selling stockholders. Upon the exercise of warrants, we would be required to issue additional shares of our common stock to the selling stockholders. We would also be required to issue additional Adjustment Shares to the extent the applicable price of our common stock, calculated as described above, is below \$1.333 per share on certain dates during the period ending June 26, 2012. Stockholder approval of the transaction is required under applicable NASDAQ Marketplace Rules because the issuance of shares of our common stock upon exercise of warrants or the issuance of Adjustment Shares could result in the aggregate number of shares being issued in the transaction exceeding 19.9% of our common stock outstanding. On May 16, 2011, immediately after the execution of the May 16 Purchase Agreement, pursuant to the terms of an Amended and Restated Voting Agreement ("Amended Voting Agreement"), dated May 16, 2011, between the Company and Novogen, in its capacity as majority stockholder of the Company, Novogen executed a written consent approving the private placement transaction (the "Stockholder Approval"), which approval became effective on July 25, 2011, which was the 20<sup>th</sup> day after we mailed a definitive information statement to our stockholders. In order to comply with the stockholder approval requirements of the NASDAQ Marketplace Rules, prior to the Stockholder Approval Effectiveness Date, the Series A warrants prohibited reductions in exercise price pursuant to their applicable anti-dilution provisions, the Series B warrants contain limitations on exercisability and the Adjustment Shares were not issuable.

The foregoing summary of the Amended Purchase Agreement, the Amended Registration Rights Agreement, the Amended Voting Agreement, the Amended Lock-up Agreements and the Warrants does not purport to be complete and is qualified in its entirety by reference to the full text of those documents or the forms thereof that are included as exhibits hereto and incorporated herein by reference.

## RISK FACTORS

*Any investment in our securities involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus and any accompanying prospectus supplement, you should carefully consider the important factors set forth under the heading “Risk Factors” starting on page 24 of our Annual Report on Form 10-K for the fiscal year ended June 30, 2010, as well as in our subsequent annual reports on Form 10-K and in other reports we file with the SEC from time to time, and incorporated herein by reference before investing in our securities. For further details, see the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”*

*Any of the risk factors set forth below or referred to above could significantly and negatively affect our business, results of operations or financial condition, which may lower the trading price of our common stock. The risks referred to above are not the only ones that may exist. Additional risks not currently known by us or that we deem immaterial may also impair our business operations. You may lose all or a part of your investment.*

***Our stockholders may not realize a benefit from the Isoflavone Transaction commensurate with the ownership dilution they will experience in connection with the Isoflavone Transaction.***

On May 9, 2011, we completed the acquisition of certain assets used in or generated under or in connection with the discovery, development, manufacture and marketing of intellectual property and products based on the field of isoflavonoid technology and on compounds known as isoflavones, including those related to the drug candidates Phenoxodiol, Triphendiol, NV 143 and NV-128 (the “Isoflavone-related Assets”), from Novogen in accordance with the terms of the Asset Purchase Agreement, dated as of December 21, 2010, between us, Novogen and Novogen Research Pty Limited. The acquisition of the Isoflavone-related Assets and the other transactions contemplated by the Asset Purchase Agreement are referred to in this prospectus as the “Isoflavone Transaction.”

If we are unable to realize the expected strategic and financial benefits from the Isoflavone Transaction, our stockholders may experience substantial dilution of their ownership interest upon the conversion of the Series A Convertible Preferred Stock, which may be converted at any time and from time to time without the payment of any additional consideration, without receiving any commensurate benefit. As of August 9, 2011, Novogen owned approximately 56.6% of our outstanding shares of common stock and, upon consummation of the Isoflavone Transaction, acquired 1,000 shares of our Series A Convertible Preferred Stock which are initially convertible into an aggregate of 4,827,000 shares of our common stock, which would increase Novogen’s ownership percentage to approximately 71.5%. In addition, upon our achievement of certain development milestones relating to the Isoflavone-related Assets, the aggregate number of shares into which the Series A Convertible Preferred Stock may be converted would increase to 9,654,000, which would potentially increase Novogen’s ownership percentage to approximately 78.8%, absent the issuance of any other shares of our common stock. Although in the Asset Purchase Agreement Novogen made certain representations and warranties regarding its intellectual property rights in respect of the Isoflavone-related Assets, these indemnification obligations, which were limited and payable solely by the forfeiture of our securities issued as consideration in the Isoflavone Transactions expired on June 30, 2011. Accordingly, do not expect to be adequately compensated, if at all, for the loss of any such intellectual property rights acquired in the Isoflavone Transaction.

***Final approval by regulatory authorities of our drug candidates for commercial use may be delayed, limited or prevented, any of which would adversely affect our ability to generate operating revenues.***

We will not generate any operating revenue until we successfully commercialize one of our drug candidates. Currently, we have drug candidates at different stages of development and each will need to successfully complete a number of tests and obtain regulatory approval before potential commercialization.

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In particular, any of the following factors may serve to delay, limit or prevent the final approval by regulatory authorities of our drug candidates for commercial use:

- NV-143 and NV-128 (or their analogues) are in the early stages of clinical development, and we will need to conduct significant clinical testing to prove safety and efficacy before applications for marketing can be filed with the FDA, or with the regulatory authorities of other countries;
- data obtained from pre-clinical and clinical tests can be interpreted in different ways, which could delay, limit or prevent regulatory approval;
- development and testing of product formulation, including identification of suitable excipients, or chemical additives intended to facilitate delivery of our drug candidates;
- it may take us many years to complete the testing of its drug candidates, and failure can occur at any stage of this process; and
- negative or inconclusive results or adverse medical events during a clinical trial could cause us to delay or terminate our development efforts.

The successful development of any of these drug candidates is uncertain and accordingly we may never commercialize any of these drug candidates or generate revenue.

***We have a limited operating history and are likely to incur operating losses for the foreseeable future.***

You should consider our prospects in light of the risks and difficulties frequently encountered by early stage and developmental companies. Although we were incorporated in December 2000, we have only been in operation since May 2002. We have incurred net losses of \$75,946,000 since our inception through March 31, 2011, including net losses of \$7,896,000, \$11,180,000 and \$12,410,000 for the years ended June 30, 2010, 2009 and 2008, respectively. We anticipate that we will incur operating losses and negative operating cash flow for the foreseeable future. We have not yet commercialized any drug candidates and cannot be sure that we will ever be able to do so, or that we may ever become profitable.

***We have limited existing financial resources and will need substantial additional funds to progress the clinical trial program for NV-143 or NV-128 (or their analogues) beyond their early stages and to develop new compounds purchased from Novogen in the Isoflavone Transaction. The actual amount of funds we will need will be determined by a number of factors, some of which are beyond our control.***

We have limited cash resources and liquidity. We will need substantial additional funds to progress the clinical trial program for NV-143 or NV-128 (or their analogues) and to develop any additional compounds. The factors which will determine the actual amount of funds that we will need to progress the clinical trial programs for NV-143 and NV-128 (or their analogues) may include the following:

- the number of sites included in the trials;
- the length of time required to enroll suitable patients;
- the number of patients who participate in the trials and the rate that they are recruited;
- the number of treatment cycles patients complete while they are enrolled in the trials; and
- the efficacy and safety profile of the product.

If we are unable to obtain additional funds on favorable terms we may be required to cease or reduce our operations. Also, if we raise more funds by selling additional securities, the ownership interests of holders of our securities will be diluted.

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***The uncertain financial markets may negatively impact our liquidity and our ability to continue our planned future clinical trials program, by precluding us from raising funds through equity issuances on terms favorable to us or at all.***

We have traditionally raised capital through the sale of equity securities to investors and intend to seek additional capital, in a significant amount compared to our current market capitalization, through one or more equity transactions. Following the events of September 2008, the financial services industry, credit markets and capital markets experienced a period of unprecedented turmoil and volatility. We may have difficulty raising the capital necessary to finance our business operations through the sale of equity securities on terms favorable to us or at all or through other types of financing. In order to obtain the additional funding necessary to conduct our business, we may need to rely on collaboration and /or licensing opportunities. We cannot assure you that we will be able to raise the funds necessary or find appropriate collaboration or licensing opportunities to fund our future business plan.

***As our majority stockholder, Novogen has the ability to determine the outcome of matters submitted to our stockholders for approval, and Novogen's interests may conflict with ours or our other stockholders' interests.***

As of August 9, 2011, Novogen beneficially owned approximately 56.6% of our outstanding shares of common stock. Upon consummation of the Isoflavone Transaction, Novogen acquired 1,000 shares of our Series A Convertible Preferred Stock that are initially convertible into an aggregate of 4,827,000 shares of our common stock, which, if entirely converted into common stock, would increase Novogen's ownership percentage to over 71.5%. In addition, upon our achievement of certain development milestones relating to the Isoflavone-related Assets, the aggregate number of shares into which the Series A Convertible Preferred Stock may be converted would increase to 9,654,000, which would potentially increase Novogen's ownership percentage to approximately 78.8%, absent the issuance of any other shares of our common stock. As a result, Novogen will have the ability to effectively determine the outcome of all matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation or sale of all or substantially all of our assets.

Novogen will have the ability to effectively control our management and affairs. Novogen's interests may not always be the same as those of our other stockholders. In addition, this concentration of ownership may harm the market price of our securities by:

- delaying, deferring or preventing a change in control;
- impeding a merger, consolidation, takeover or other business combination involving us;
- discouraging a potential acquirer from making a tender, offer or otherwise attempting to obtain control of us; or
- selling us to a third party.

### **Risks Related to Our Common Stock**

***The trading price of the shares of our common stock has been and may continue to be highly volatile and could decline in value and we may incur significant costs from class action litigation.***

The trading price of our common stock could be highly volatile in response to various factors, many of which are beyond our control, including:

- failure to successfully develop drug candidates NV-143 and NV-128 and their analogues;
- announcements of technological innovations by us or our competitors;
- new products introduced or announced by us or our competitors;

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- changes in financial estimates by securities analysts;
- actual or anticipated variations in operating results;
- expiration or termination of licenses, research contracts or other collaboration agreements;
- conditions or trends in the regulatory climate and the biotechnology, pharmaceutical and genomics industries;
- instability in the stock market as a result of current global events;
- changes in the market valuations of similar companies;
- the liquidity of any market for our securities; and
- additional sales by us or Novogen of shares of our common stock.

In addition, equity markets in general, and the market for biotechnology and life sciences companies in particular, have experienced substantial price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies traded in those markets. In addition, changes in economic conditions in the U.S., Europe or globally, particularly in the context of current global events, could impact upon our ability to grow profitably. Adverse economic changes are outside our control and may result in material adverse impacts on our business or our results of operations. These broad market and industry factors may materially affect the market price of shares of our common stock, regardless of our development and operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted against that company. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources.

***We cannot assure you that we will be able to obtain financing sufficient to meet our future capital and operating needs.***

We expect to have to attempt to sell additional shares of common stock, and securities exercisable or convertible into shares of our common stock, in the future to satisfy our capital and operating needs. If we sell shares in the future, the prices at which we sell these future shares will vary, and these variations may be significant. Purchasers of the shares we sell pursuant to future offerings, as well as our existing stockholders, will experience significant dilution if we sell these future shares at prices significantly below the price at which previous shareholders invested.

Pursuant to the terms of the May 16 Purchase Agreement, we have agreed not to offer or sell any of our or our subsidiaries' equity securities, including securities that are convertible or exchangeable for our common stock, or to file any new registration statement, other than as required by the Amended Registration Rights Agreement between us and the investors, until the earlier of (i) June 18, 2012 and (ii) 90 days after the registration of all of the securities we have agreed to register pursuant to the Amended Registration Rights Agreement. The foregoing restrictions on securities issuances do not apply to certain permitted issuances, including the issuance of up to \$4,000,000 of common stock and warrants to purchase common stock between the later to occur of 120 days after the May 18, 2011 closing date under the May 16 Purchase Agreement and the date on which all of the common stock issued pursuant to the May 16 Purchase Agreement has been registered under the Securities Act.

***Future sales of our common stock, including upon conversion of our outstanding Series A Convertible Preferred Stock and exercise of our outstanding series A and series B warrants, may depress the market price of our common stock and cause stockholders to experience dilution.***

The market price of our common stock could decline as a result of sales of substantial amounts of our common stock in the public market, including upon conversion of the Series A Convertible Preferred Stock or

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exercise of outstanding warrants. On May 18, 2011, pursuant to the May 16 Purchase Agreement, we issued 835,217 shares of common stock together with series A and series B warrants initially exercisable for an aggregate amount of approximately 2.8 million shares of common stock, which amount could increase to a maximum of approximately 4.4 million shares of common stock to the extent the Series B warrants are exercised. As of August 9, 2011, series B warrants for 375,000 shares of common stock had been exercised resulting in Series A warrants becoming exercisable for an additional 281,250 shares of common stock. Also pursuant to the May 16 Purchase Agreement, we agreed to issue certain additional shares of our common stock, up to a maximum amount of approximately 2.3 million shares to the extent the Series B warrants are exercised, to the extent the trading price of our common stock is below certain levels on specified dates. The terms of the warrants and May 16 Purchase Agreement, including the anti-dilution and full-ratchet provisions, may make it difficult for us to raise additional capital consistent with prevailing market terms, if at all. We intend to seek additional capital through one or more additional equity transactions in 2011; however, such transactions will be subject to market conditions and there can be no assurance any such transaction will be completed.

### ***While the Series A and B warrants are outstanding, it may be more difficult to raise additional equity capital.***

During the term that the Series A and B warrants are outstanding, the holders of those warrants are given the opportunity to profit from a rise in the market price of our common stock. In addition, the May 16 Purchase Agreement gives the investors in the private placement the right to receive additional shares of common stock, and cash, in certain circumstances if the trading price of our common stock declines. We may find it more difficult to raise additional equity capital while the warrants are outstanding or Adjustment Shares are potentially issuable under the May 16 Purchase Agreement.

### ***Because we do not intend to pay, and have not paid, any cash dividends on our shares of common stock, our stockholders will not be able to receive a return on their shares unless the value of our common stock appreciates and they sell their shares.***

We have never paid or declared any cash dividends on our common stock, and we intend to retain any future earnings to finance the development and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Therefore, our stockholders will not be able to receive a return on their investment unless the value of our common stock appreciates and they sell their shares.

### ***Our common stock may be delisted from Nasdaq.***

During 2010, we received deficiency notices from Nasdaq regarding non-compliance with the minimum stockholders equity and the minimum Market Value of Publicly Held Shares in accordance with Nasdaq Listing Standards for the Nasdaq Global Market. On March 7, 2011, a Nasdaq Hearing Panel granted us until May 16, 2011 to evidence compliance with the stockholders equity and minimum Market Value of Publicly Held Shares requirement. On March 23, 2011, we received a positive response from the Nasdaq Listing Qualifications Staff indicating that our request for a transfer and continued listing on the Nasdaq Capital Market had been granted. Our common stock began trading on the Nasdaq Capital Market effective with the open of business on March 16, 2011.

Under Nasdaq rules, we are required to maintain minimum stockholders' equity of \$2.5 million. If our stockholders' equity falls below \$2.5 million, we would have 45 calendar days from the date of notification by Nasdaq to submit a plan to regain compliance. If the plan is accepted, Nasdaq can grant an extension of up to 180 calendar days from the date of the original notification for us to evidence compliance with this requirement. We expect that the sale of the shares of common stock and warrants issued in the private placement that closed on May 18, 2011 will result in the company recording a liability under generally accepted accounting principles, based on certain anti-dilution provisions contained in the warrants and the May 16 Purchase Agreement. The amount of stockholders' equity

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recorded in respect of the issuance of shares of common stock and warrants in the private placement that closed on May 18, 2011 will be reduced by the amount of such liability, and any liability in excess of proceeds received in such private placement will be recognized as an expense. We expect our stockholders' equity will fall below \$2.5 million as a result of the derivative accounting treatment associated with the private placement and, therefore, may lead to de-listing of our common stock on the Nasdaq Stock Market, unless we are able to increase our stockholders' equity through an equity offering or otherwise. In addition, under Nasdaq rules, companies listed on the Nasdaq Capital Market are required to maintain a share price of at least \$1.00 per share and if the share price declines below \$1.00 for a period of 30 consecutive business days, then the listed company would have 180 days to regain compliance with the \$1.00 per share minimum. In the event that our share price declines below \$1.00, we may be required to take action, such as a reverse stock split, in order to comply with the Nasdaq rules that may be in effect at the time.

If we are not able to comply with the listing standards of the Nasdaq Capital Market, our common stock will be delisted from Nasdaq and an associated decrease in liquidity in the market for our common stock will occur.

In addition, if the market price of our common stock remains below \$5.00 per share, under stock exchange rules, our stockholders will not be able to use such shares as collateral for borrowing in margin accounts. Further, certain institutional investors are restricted from investing in shares priced below \$5.00. This inability to use shares of our common stock as collateral and the inability of certain institutional investors to invest in our shares may depress demand and lead to sales of such shares creating downward pressure on and increased volatility in the market price of our common stock.

## CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements other than statements of historical facts contained in this prospectus and in the documents incorporated by reference herein, including statements regarding the future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “expect,” and similar expressions, as they relate to us, are intended to identify forward-looking statements. We have based these forward-looking statements largely on current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, without limitation, those described in “Risk Factors” and elsewhere in this prospectus and the documents incorporated by reference herein, including, among other things:

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things:

- expected benefits from the Isoflavone Transaction may not be fully realized within the expected time frames or at all;
- the Isoflavone-related Assets may not be integrated successfully with the Company’s business or such integration may be more difficult, time-consuming or costly than expected;
- our inability to obtain required additional financing or financing available to us on acceptable terms, or at all, which may cause us to delay, scale-back or eliminate plans related to development of our drug candidates;
- we are in an early stage of pre-clinical studies for our next generation product candidates on which our development plans are based; pre-clinical studies by their nature typically have a high level of risk of failure, and may not produce successful results;
- uncertainties in clinical trial results;
- our inability to maintain or enter into, and the risks resulting from our dependence upon, collaboration or contractual arrangements necessary for the clinical development, manufacture, commercialization, marketing, sales and distribution of NV-143 and NV-128 or their analogues;
- costs and delays in the clinical development programs and/or receipt of U.S. Food and Drug Administration (the “FDA”) or other required governmental approvals, or the failure to obtain such approvals, for our product candidates;
- our failure to successfully commercialize our product candidates;
- the failure of any products to gain market acceptance;
- our inability to control the costs of manufacturing our products;
- competition and competitive factors;
- our inability to protect our patents or proprietary rights and obtain necessary rights to third party patents and intellectual property to operate our business;
- our inability to operate our business without infringing the patents and proprietary rights of others;
- costs stemming from our defense against third party intellectual property infringement claims;
- general economic conditions;
- technological changes;

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- government regulation generally and the receipt of regulatory approvals;
- changes in industry practice; and
- one-time events.

These risks are not exhaustive. Other sections of this prospectus and the documents incorporated by reference herein include additional factors which could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for us to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

You should not rely upon forward looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

**USE OF PROCEEDS**

We will not receive any of the proceeds from the sale of securities by the selling stockholders pursuant to this prospectus.

## SELLING STOCKHOLDERS

The shares of common stock being offered by the selling stockholders are those previously issued to the selling stockholders. The Series A and B warrants are not being registered for resale, nor are the shares of common stock issuable to the selling stockholders upon exercise thereof or any Adjustment Shares. For additional information regarding the issuance of common stock and the warrants, see “Prospectus Summary—Private Placement of Common Shares and Warrants” above. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the common stock and the warrants issued pursuant to the May 16 Purchase Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of the shares of common stock held by each of the selling stockholders. The third column lists the percentage of shares of common stock beneficially owned by the selling stockholders, based on their respective ownership of shares and warrants as of August 9, 2011, assuming exercise of the warrants held by such selling stockholders in full but taking account of any limitations on exercise contained therein. The percentage of shares beneficially owned prior to the offering is based on 9,256,089 shares of our common stock outstanding as of August 9, 2011. The number of shares in the column “Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus” represents all of the shares that the selling stockholder may offer under this prospectus.

In accordance with the terms of the Amended Registration Rights Agreement with the selling stockholders, this prospectus generally covers the resale of the shares of common stock issued on May 18, 2011 in connection with the May 16 Purchase Agreement. In accordance with the terms of the Amended Registration Rights Agreement with the selling stockholders, this prospectus does not cover any Adjustment Shares which may be issuable pursuant to the terms of the May 16 Purchase Agreement. Although under the Amended Registration Rights Agreement we remain obligated to register in the future the shares of common stock issued or issuable upon exercise of the Series A and B warrants (without regard to any limitations on exercise contained therein) to the extent permitted, these shares are not covered by this prospectus.

The Series A Warrants will be exercisable after the six-month anniversary of the May 18, 2011 date of issuance at a per share exercise price equal to \$1.57, subject to certain adjustments as specified in the Series A Warrants, and will remain exercisable until the fifth anniversary of the initial exercise date. The Series B Warrants are currently exercisable at the option of each holder.

Under the terms of the warrants, a selling stockholder may not exercise the warrants to the extent such exercise would cause such selling stockholder, together with its affiliates, to beneficially own a number of shares of common stock which would exceed 9.99% of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrants which have not been exercised and Adjustment Shares that have not become issuable in accordance with their terms. The number and percentage of shares in the second, third, fourth and fifth columns reflect this limitation. In addition, under the terms of the May 16 Purchase Agreement, a selling stockholder may not receive any Adjustment Shares to the extent such issuance would cause such selling stockholder, together with its affiliates, to own a number of shares of common stock which would exceed 9.99% of our then outstanding shares of common stock following such issuance, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrants which have not been exercised and Adjustment Shares that have not become issuable in accordance with their terms. The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

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<u>Name of Selling Stockholder</u>	<u>Number of Shares of Common Stock Owned Prior to Offering</u>	<u>% of Shares of Common Stock Owned Prior to Offering</u>	<u>Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus</u>	<u>Number of Shares of Common Stock Owned After Offering</u>	<u>% of Shares of Common Stock Owned After Offering</u>
Capital Ventures International (1)	939,342(2)	9.99%	417,608(2)	985,691(3)	9.99%(3)
Hudson Bay Master Fund Ltd. (4)	980,962(5)	9.99%	417,609(5)	1,027,312(6)	9.99%(6)

- (1) Heights Capital Management, Inc., the authorized agent of Capital Ventures International, has discretionary authority to vote and dispose of the shares held by Capital Ventures International and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by Capital Ventures International. Mr. Kobinger disclaims any such beneficial ownership of the shares. Capital Ventures International is affiliated with one or more registered broker-dealers. Capital Ventures International purchased the shares being registered hereunder in the ordinary course of business and at the time of purchase, had no agreements or understandings, directly or indirectly, with any other person to distribute such shares.
- (2) The number of shares shown in this column is comprised of 417,608 shares of common stock purchased by Capital Ventures International in the private placement described above, 375,000 shares of common stock issued upon exercise of a portion of the Series B Warrant acquired by Capital Ventures International in such private placement and 146,734 of the 707,767 shares of common stock issuable upon exercise of the balance of such Series B Warrant. In such private placement, Capital Ventures International also received (i) a Series A Warrant to purchase up to 1,125,282 shares of common stock (initially limited to 313,206 shares, subject to proportionate increases to the extent the Series B Warrants have been exercised by Capital Ventures International prior to the applicable Series A warrant exercise date up to a maximum of 1,125,282 shares) and (iii) the right to receive up to 324,621 Adjustment Shares (up to 1,166,291 Adjustment Shares in the aggregate, if Capital Ventures International exercises its Series B Warrant in full), which warrants and Adjustment Shares, by their respective terms, are not currently exercisable into common stock at the discretion of Capital Ventures International, or issuable to Capital Ventures International in the case of the Adjustment Shares, within 60 days of August 9, 2011.
- (3) The number of shares shown in this column assumes that (i) all of the shares of common stock issued at the closing of the private placement are sold in this offering, (ii) the number of shares remaining after such sale (985,691) have been issued (375,000) or are issuable (521,881) upon exercise of the Series B Warrant initially exercisable for 1,082,767 shares of common stock issued to Capital Ventures Limited, taking into account the limitations on exercise contained therein, and that (iii) the Series A Warrant held by Capital Ventures International has not become exercisable and no Adjustment Shares have become issuable to Capital Ventures International.
- (4) Hudson Bay Capital Management, L.P., the investment manager of Hudson Bay Master Fund Ltd., has voting and investment power over these securities. Sander Gerber is the managing member of Hudson Bay Capital GP LLC, which is the general partner of Hudson Bay Capital Management, L.P. Sander Gerber disclaims beneficial ownership over these securities.
- (5) The number of shares shown in this column is comprised of 417,609 shares of common stock purchased by Hudson Bay Master Fund Ltd. in the private placement described above and 563,353 of the 1,082,767 shares of common stock issuable upon exercise of the Series B Warrant acquired by Hudson Bay Master Fund Ltd. in the private placement described above. In such private placement, Hudson Bay Master Fund Ltd. also received (i) a Series A Warrant to purchase up to 1,125,282 shares of common stock (initially limited to 313,207 shares, subject to proportionate increases to the extent the Series B Warrants have been exercised by Hudson Bay Master Fund Ltd. prior to the applicable Series A Warrant exercise date up to a maximum of 1,125,282 shares) and (ii) the right to receive up to 324,621 Adjustment Shares (up to 1,166,292 Adjustment Shares in the aggregate, if Hudson Bay Master Fund Ltd. exercises its Series B Warrant in full), which warrants and Adjustment Shares, by their respective terms, are not currently exercisable into common stock

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at the discretion of Hudson Bay Master Fund Ltd., or issuable to Hudson Bay Master Fund Ltd. in the case of the Adjustment Shares, within 60 days of August 9, 2011.

- (6) The number of shares shown in this column assumes that (i) all of the shares of common stock issued at the closing of the private placement are sold in this offering, (ii) the number of shares remaining after such sale (1,027,312) are issuable pursuant to the exercise of the Series B Warrant initially exercisable for 1,082,767 shares of common stock issued to Hudson Bay Master Fund Ltd., taking into account the limitations on exercise contained therein, and that (iii) the Series A Warrant held by Hudson Bay Master Fund Ltd. has not become exercisable and no Adjustment Shares have become issuable to Hudson Bay Master Fund Ltd.

## PLAN OF DISTRIBUTION

We are registering the shares of common stock previously issued to permit the resale of these shares of common stock by the selling stockholders from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders may sell all or a portion of the shares of common stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the 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;
- agreements between broker-dealers and the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares of common stock under Rule 144 promulgated under the Securities Act, if available, rather than under this prospectus. In addition, the selling stockholders may transfer the shares of common stock by other means not described in this prospectus. If the selling stockholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of common stock short and deliver shares of common stock covered by this prospectus to close out

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short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the warrants or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

Also on May 16, 2011, we entered into the Amended Registration Rights Agreement pursuant to which we agreed to file, within 30 days of the May 18, 2011 closing of the private placement (the “Filing Deadline”), a registration statement with the SEC registering the 835,217 shares of common stock issued in the private placement and the common stock issuable upon exercise of the Series A and B Warrants for resale. In the event we (i) did not file this registration statement on or before the Filing Deadline, (ii) such registration statement is not declared effective on or before the associated effectiveness deadline, or (iii) we fail to maintain the effectiveness of such registration statement, other than during certain permitted grace periods, we will be required to pay liquidated damages on a monthly basis in an amount equal to 2% of the aggregate purchase price paid by the private placement investors for any unregistered securities then held by private placement investors.

We will pay all expenses of the registration of the shares of common stock pursuant to the Amended Registration Rights Agreement, estimated to be \$50,000 in total, including, without limitation, Securities and

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Exchange Commission filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act in accordance with the Amended Registration Rights Agreement or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the Amended Registration Rights Agreement or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

**LEGAL MATTERS**

The validity of the securities described herein will be passed upon for us by Morgan, Lewis & Bockius LLP.

**EXPERTS**

The financial statements as of June 30, 2010 and 2009, and for each of the three years in the period ended June 30, 2010, incorporated by reference into this prospectus have been so incorporated in reliance on the report of BDO Audit (NSW-VIC) Pty Ltd, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information we have filed with the SEC. The information we incorporate by reference into this prospectus is an important part of this prospectus. Any statement in a document we incorporate by reference into this prospectus will be considered to be modified or superseded to the extent a statement contained in this prospectus or any subsequently filed document that is incorporated by reference into this prospectus modifies or supersedes that statement. The modified or superseded statement will not be considered to be a part of this prospectus, except as modified or superseded.

We incorporate by reference into this prospectus the information contained in the documents listed below, which is considered to be a part of this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended June 30, 2010, as amended by the Form 10-K/A filed on October 28, 2010;
- our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2010, as amended by the Form 10-Q/A filed on February 7, 2011;
- our Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2010, filed on February 11, 2011;
- our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2011, filed on May 16, 2011;
- our Current Reports on Form 8-K filed with the SEC on July 20, 2010, August 11, 2010, September 8, 2010 (excluding those portions furnished and not filed), November 19, 2010, December 22, 2010, January 19, 2011, January 27, 2011, February 7, 2011, March 18, 2011, April 18, 2011, May 2, 2011 and May 11, 2011 (as amended by the current report on Form 8-K/A filed on May 13, 2011), May 16, 2011 and June 2, 2011 (excluding those portions furnished and not filed); and
- the description of our common stock contained in the Registration Statement on Form 8-A filed on November 26, 2003, and any further amendment or report filed thereafter for the purpose of updating such description.

We also incorporate by reference all documents filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after (i) the date of the initial registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement and (ii) the date of this prospectus and prior to the termination of this offering; provided, however, that we are not incorporating any information furnished under Item 2.02 or Item 7.01 of any current report on Form 8-K we may subsequently file.

Statements made in this prospectus in any document incorporated by reference in this prospectus as to the contents of any contract or other document referred to herein or therein are not necessarily complete, and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the documents incorporated by reference, each such statement being qualified in all material respects by such reference.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Marshall Edwards, Inc.  
11975 El Camino Real, Suite 101  
San Diego, California 92130  
Tel: (858) 792-6300  
Attn: Investor Relations

Copies of these filings are also available, without charge, through the “Investors” section of our website ([www.marshalledwardsinc.com](http://www.marshalledwardsinc.com)) as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

**WHERE YOU CAN FIND MORE INFORMATION**

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. The SEC's website contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC. You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its Public Reference Room.