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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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**FORM 8-K**

**CURRENT REPORT**  
**Pursuant to Section 13 or 15(d) of the**  
**Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): June 1, 2010**

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**Marshall Edwards, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or  
organization)

**000-50484**  
(Commission File Number)

**51-0407811**  
(I.R.S. Employer Identification No.)

**140 Wicks Road, North Ryde, NSW, 2113 Australia**  
(Address of principal executive offices) (Zip Code)

**Registrant's telephone number, including area code: (011) 61 2 8877-6196**

**Not Applicable**  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 8.01 Other Events.**

On June 1, 2010, Marshall Edwards, Inc. (the "Company"), an oncology company focused on the clinical development of novel anti-cancer therapeutics, announced that a final analysis of its Phase 3 OVATURE trial of orally administered phenoxodiol in women with recurrent ovarian cancer determined that the trial did not show a statistically significant improvement in its primary (progression-free survival) or secondary (overall survival) endpoints. As previously announced, the trial was closed for recruitment before completion of enrollment with only 142 out of a planned 340 patients enrolled.

This multi-center, randomized, double-blind trial assessed the safety and efficacy of daily phenoxodiol in combination with weekly carboplatin versus weekly carboplatin with placebo in patients with platinum-resistant or platinum-refractory, late-stage epithelial ovarian, fallopian or primary peritoneal cancer following at least second line platinum therapy.

A copy of the press release is attached hereto as Exhibit 99.1 and incorporated herein by reference.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release issued by Marshall Edwards, Inc. dated June 1, 2010

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Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MARSHALL EDWARDS, INC.

By: /s/ Daniel P. Gold

Daniel P. Gold

Chief Executive Officer and President

Dated: June 7, 2010

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Index to Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release issued by Marshall Edwards, Inc. dated June 1, 2010

**Marshall Edwards Announces Final Results From Halted Phase 3 Clinical Trial of Phenoxodiol**

SYDNEY, AUSTRALIA and SAN DIEGO, CA—(June 1, 2010) — Marshall Edwards, Inc. (NASDAQ: [MSHL](#)), an oncology company focused on the clinical development of novel anti-cancer therapeutics, announced today that a final analysis of its Phase 3 OVATURE trial of orally administered phenoxodiol in women with recurrent ovarian cancer determined that the trial did not show a statistically significant improvement in its primary (progression-free survival) or secondary (overall survival) endpoints. As previously announced, the trial was closed for recruitment before completion of enrollment with only 142 out of a planned 340 patients enrolled.

This multi-center, randomized, double-blind trial assessed the safety and efficacy of daily phenoxodiol in combination with weekly carboplatin versus weekly carboplatin with placebo in patients with platinum-resistant or platinum-refractory, late-stage epithelial ovarian, fallopian or primary peritoneal cancer following at least second line platinum therapy.

“Owing to the fact that this trial was significantly underpowered due to the small number of patients enrolled, we were disappointed, but not entirely surprised by the final outcome,” said Dr. Daniel P. Gold, newly appointed Chief Executive Officer of Marshall Edwards. “However, we remain confident that our investigational isoflavone platform, including triphendiol, a potentially more potent, second-generation analogue of phenoxodiol, may be of benefit to women with ovarian cancer, particularly when administered intravenously.

“Previously reported results of a Phase 2 trial,” continued Dr. Gold, “which tested the activity of intravenous phenoxodiol plus weekly cisplatin in a similar platinum-resistant or refractory patient population, demonstrated a 30% response rate (6 out of 20) compared to less than 1% (1 out of 142) in the OVATURE study in which phenoxodiol was administered orally. In addition, we remain excited with the progress of another product candidate in our pipeline, NV-128, a novel isoflavone analogue with a mode of action distinct from both phenoxodiol and triphendiol.

“Lastly, I want to take this opportunity to personally thank the patients and their families for their participation in this trial. I would also like to thank the clinical investigators and trial coordinators for their dedication and support.”

**Safety Outcomes**

As previously noted, phenoxodiol had a good safety profile and was well tolerated. The number of patients experiencing at least one adverse event was similar in each treatment group, as was the number of patients experiencing adverse events of Grade 3 or higher.

**About OVATURE and the Phenoxodiol Clinical Program**

The OVATURE (“**OV**Arian **TU**mor **RE**sponse”) trial was a multi-center international Phase 3 clinical trial of orally administered investigational drug phenoxodiol in combination with

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carboplatin in women with advanced ovarian cancer resistant or refractory to platinum-based drugs to determine its safety and effectiveness when used in combination with carboplatin.

The trial recruited ovarian cancer patients whose cancer initially responded to chemotherapy, but had since become resistant or refractory to traditional platinum treatments. The study was closed to enrolment in April 2009 at which time 142 patients had been randomized to the study. Changes in standards of care over the period of the trial and the stringency of inclusion/exclusion criteria of the OVATURE protocol had slowed patient recruitment rates and consequently the Company deemed it prudent not to continue the trial to completion. The Independent Data Monitoring Committee (IDMC) supported the Company's decision to close the study to accrual, and, in a review of the available safety data, the IDMC confirmed that there were no safety concerns with phenoxodiol in these subjects.

#### **About Phenoxodiol**

Phenoxodiol is being developed as a chemosensitizing agent in combination with platinum drugs for late stage, chemoresistant ovarian cancer and as a monotherapy for prostate and cervical cancers. It is believed to have a unique mechanism of action, binding to cancer cells via a cell membrane oxidase, causing major downstream disturbances in expression of proteins necessary for cancer cell survival and responsible for the development of drug resistance.

Phenoxodiol appears to selectively inhibit the regulator known as S-1-P (sphingosine-1-phosphate) that is overexpressed in cancer cells. In response to phenoxodiol, S-1-P content is decreased, with a consequent decrease in expression of the pro-survival proteins XIAP and FLIP, inducing cell death via caspase expression and promoting sensitivity to other chemotherapeutics. In laboratory studies, it has been demonstrated that drug-resistant ovarian cancer cells pre-treated with phenoxodiol were killed with lower doses of chemotherapy drugs. Importantly, phenoxodiol has been shown not to adversely affect normal cells in animal and laboratory testing.

Phenoxodiol has been granted Fast Track status from the FDA to facilitate its development as a therapy for recurrent ovarian and prostate cancers. Fast Track designation is designed to facilitate the review of products that address serious or potentially life-threatening conditions for which there is an unmet medical need and provides the option to file a New Drug Application on a rolling basis. This permits the FDA to review the filing as it is received, expediting the review process. Phenoxodiol is an investigational drug and, as such, is not commercially available. Under U.S. law, a new drug cannot be marketed until it has been investigated in clinical trials and approved by FDA as being safe and effective for the intended use.

#### **About Marshall Edwards, Inc.**

Marshall Edwards, Inc. (NASDAQ: [MSHL](#)) is a specialist oncology company focused on the clinical development of novel anti-cancer therapeutics. These derive from an investigational isoflavone technology platform, which has generated a number of novel compounds characterized by broad ranging activity against a range of cancer cell types with few side effects. The combination of anti-tumor cell activity and low toxicity is believed to be a result of the ability of these compounds to target an enzyme present in the cell membrane of cancer cells, thereby inhibiting the production of pro-survival proteins within the cell. Marshall Edwards has

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licensed rights from Novogen Limited (ASX: [NRT](#)) (NASDAQ: [NVGN](#)) to bring oncology drugs phenoxodiol, triphendiol and NV-128 to market globally.

Marshall Edwards is majority owned by Novogen Limited, an Australian biotechnology company that is specializing in the development of therapeutics based on an isoflavone technology platform. Novogen is developing a range of therapeutics across the fields of oncology, cardiovascular disease and inflammatory diseases. More information on Marshall Edwards and on the Novogen group of companies can be found at [www.marshalledwardsinc.com](http://www.marshalledwardsinc.com) and [www.novogen.com](http://www.novogen.com).

*Under U.S. law, a new drug cannot be marketed until it has been investigated in clinical trials and approved by the FDA as being safe and effective for the intended use. Statements included in this press release that are not historical in nature are “forward-looking statements” within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. You should be aware that our actual results could differ materially from those contained in the forward-looking statements, which are based on management’s current expectations and are subject to a number of risks and uncertainties, including, but not limited to, our failure to successfully commercialize our product candidates; costs and delays in the development and/or FDA approval, or the failure to obtain such approval, of our product candidates; uncertainties or differences in interpretation 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 development, manufacture, commercialization, marketing, sales and distribution of any products; 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; general economic conditions; the failure of any products to gain market acceptance; our inability to obtain any additional required financing; technological changes; government regulation; changes in industry practice; and one-time events. We do not intend to update any of these factors or to publicly announce the results of any revisions to these forward-looking statements.*