

## ASX & MEDIA RELEASE 19 NOVEMBER, 2010

## MARSHALL EDWARDS ANNOUNCES PRESENTATION OF NEW DATA SHOWING ACTIVITY IN CHEMOTHERAPY-RESISTANT OVARIAN CANCER CELLS

Novogen Limited's subsidiary, Marshall Edwards, Inc., (NASDAQ: MSHL) has made the following announcement.

## Data presented at 1st World Congress on Targeting Mitochondria held in Berlin

San Diego – 18 November, 2010 – Marshall Edwards, Inc. (Nasdaq: MSHL), an oncology company focused on the clinical development of novel anti-cancer therapeutics, announced the presentation of new data from the Company's mitochondrial inhibitor program showing activity in chemotherapy-resistant ovarian cancer stem cells. The data were reported today at the 1<sup>st</sup> World Congress on Targeting Mitochondria in Berlin.

Ayesha Alvero, MD, Department of Obstetrics, Gynecology, and Reproductive Sciences, Yale University School of Medicine, presented data from a pre-clinical study of first-generation compound NV-128 demonstrating its ability to induce mitochondrial instability, ultimately leading to cell death in chemotherapy-resistant ovarian cancer stem cells.

"This study showed for the first time that targeting the mitochondria induces caspase-independent cell death in otherwise chemotherapy-resistant ovarian cancer stem cells," said Dr Alvero. "The demonstration that a compound can disrupt cancer cell metabolism by specifically targeting the mitochondria to induce cell death opens an avenue for the development of potential new therapeutics for ovarian cancer patients."

The study further characterised the novel mechanism of action of NV-128, an isoflavone derivative that promotes a state of cellular starvation, resulting in the activation of two independent signalling pathways in cancer cells: 1) the AMPkinase pathway leading to inhibition of the mammalian target of rapamycin (mTOR) complexes and the induction of destructive autophagy; and 2) the MEK/ERK pathway leading to mitochondrial depolarization and DNA fragmentation.

"In addition to this exciting data from Yale, our first-generation compound NV-128 has shown preclinical activity against a broad range of cancers, including KRAS-mutant, Tarceva®-resistant non-small cell lung cancer cell lines," said Daniel P Gold PhD, President and Chief Executive Officer of Marshall Edwards.

Marshall Edwards has also identified a next-generation compound named NV-344 that appears to be significantly more active than NV-128 in pre-clinical studies. The Company plans to conduct the necessary non-clinical studies to initiate clinical trials of NV-344 in 2011.

## **About Marshall Edwards**

Marshall Edwards, Inc. (Nasdaq: MSHL) is a San Diego-based oncology company focused on the clinical development of novel anti-cancer therapeutics. The Company's pipeline is derived from an investigational isoflavone technology platform that has generated a number of compounds with anti-proliferative activity in human cancer cell lines. These small molecules have been shown to interact with specific enzyme targets resulting in inhibition of tumour cell metabolism, a function critical for cancer cell survival. The Company's lead programs focus on two families of compounds with related but distinct mechanisms of action. The first and most advanced is a NADH oxidase inhibitor program that includes lead drug candidate NV-143. The second is a mitochondrial inhibitor program that includes NV-128 and its next-generation candidate NV-344. Both programs are expected to advance into the clinic in 2011. For more information, please visit<u>www.marshalledwardsinc.com</u>.

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.

ISSUED FOR : NOVOGEN LIMITED

LISTINGS : ASX (CODE NRT), NASDAQ (CODE NVGN).

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