

# ASX:NRT

## NASDAQ:NVGN

Novogen Ltd (Company)

ABN 37 063 259 754

### **Capital Structure**

Ordinary Shares on issue:

256 M

### **Board of Directors**

**Dr Graham Kelly** Chairman & Executive Director

Steve Coffey Non Executive Director

John O'Connor Non Executive Director

**Prof Peter Gunning** Non Executive Director

# YALE UNIVERSITY AND NOVOGEN RELEASE DATA ON CANTRIXIL MODE OF ACTION

- Key data confirming Cantrixil kills ovarian cancer stem cells
- Unique action of inhibiting pro-survival mechanisms and promoting pro-death mechanisms

**Sydney, Australia (Monday March 30, 2015).** US-Australian drug discovery company, Novogen Ltd, (ASX:NRT; NASDAQ:NVGN) and its subsidiary, CanTx, Inc., and Yale University, on March 27 released pre-clinical data on experimental anticancer drug, Cantrixil. The data was presented as an oral presentation by Professor Gil Mor MD PhD of Yale Medical School to the 62<sup>nd</sup> Annual Scientific Meeting of the Society of Reproductive Investigation in San Francisco, CA.

In both in vitro and in animal studies, Cantrixil, has proved highly effective at killing human ovarian stem (tumor-initiating) cells, cells that otherwise are highly resistant to standard of care cytotoxic drugs and which generally are believed to be responsible for diseases recurrence following initial therapy. Researchers have been keen to understand how the active ingredient in Cantrixil, TRXE-002, is able to achieve this effect where other drugs have failed.

The data shows that Cantrixil specifically activates the JNK-Jun pathway leading to mitochondrial damage and the induction of genes associated with cell death (apoptosis). In addition, Cantrixil blocks the survival pathway pERK. The combination of these two cellular effects (down-regulation of pro-survival and up-regulation of pro-death pathways) provides a unique advantage to target chemo-resistant cancer stem cells.

Cantrixil is due to enter its first-in-man study in late-2015. The study will enroll patients with the terminal condition, malignant ascites, associated with late-stage abdominal carcinomatosis of various types of cancer, but mainly targeting ovarian cancer and colo-rectal cancer.

## **About Cantrixil**

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Cantrixil is a cyclodextrin envelope containing the active ingredient, TRXE-002. The construct has been designed as an intra-cavity chemotherapy to be injected directly into the peritoneal and pleural cavities without causing local irritation or toxicity. Its purpose is to achieve high drug levels in the environment in which the cancer is spreading through the migration of the cancer stem cells are spreading. The ultimate primary indication of Cantrixil to be sought is first-line therapy of early-stage cancers of the abdominal cavity (eg. ovarian, uterine, colo-rectal and gastric carcinomas).



Cantrixil is owned by CanTx, Inc.

## About TRXE-002

TRXE-002 is a small molecule cytotoxic belonging to a family of compounds whose anti-cancer function is based on various biological effects including inhibition of trans-membrane electron-transfer mechanisms. TRXE-002 is pan anti-cancer acting, resulting in caspase-dependent apoptosis of both stem cell-like cancer cells and their daughter cancer cells. The compound has a high therapeutic index with little cytotoxic effect on non-tumor cells.

## About CanTx, Inc.

CanTx is a joint venture company between Novogen and Yale University. Novogen has licensed the drug candidate, TRXE-002, to CanTx for use in Cantrixil. CanTx is based in New Haven, CT.

Further information is available on www.can-tx.com

#### **About Novogen Limited**

Novogen is a public, Australian-US drug-development company whose shares trade on both the Australian Securities Exchange ('NRT') and NASDAQ ('NVGN'). The Novogen group includes US-based, CanTx Inc, a joint venture company with Yale University.

Novogen has two main drug technology platforms: super-benzopyrans (SBPs) and anti-tropomyosins (ATMs). SBP compounds have been designed to kill the full heterogeneity of cells within a tumor, but with particular activity against the cancer stem (tumor-initiating) cell.

The ATM compounds target the micro-filament component of the cancer cell's cytoskeleton and have been designed to combine with anti-microtubule drugs (taxanes, vinca alkaloids) to produce comprehensive and fatal destruction of the cancer cell cytoskeleton.

The Company pipeline comprises two SBP drug candidates (TRXE-002, TRXE-009) and one ATM drug candidate (*Anisina*).

Further information is available on our website www.novogen.com

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#### Forward Looking Statement

This press release contains "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. The Company has tried to identify such forward-looking statements by use of such words as "expects," "appear," "intends," "hopes," "anticipates," "believes," "could," "should," "would," "may," "target," "evidences" and "estimates," and other similar expressions, but these words are not the exclusive means of identifying such statements. Such statements include, but are not limited to any statements relating to the Company's drug development program, including, but not limited to the initiation, progress and outcomes of clinical trials of the Company's drug development program, including, but not limited to, Cantrixil and TRXE-002, and any other statements that



are not historical facts. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to the difficulties or delays in financing, development, testing, regulatory approval, production and marketing of the Company's drug components, including, but not limited to Cantrixil and TRXE-002, the ability of the Company to procure additional future sources of financing, unexpected adverse side effects or inadequate therapeutic efficacy of the Company's drug compounds, including, but not limited to, Cantrixil and TRXE-002, that could slow or prevent products coming to market, the uncertainty of patent protection for the Company's intellectual property or trade secrets, including, but not limited to, the intellectual property relating to Cantrixil and TRXE-002, and other risks detailed from time to time in the filings the Company makes with Securities and Exchange Commission including its annual reports on Form 20-F and its reports on Form 6-K. Such statements are based on management's current expectations, but actual results may differ materially due to various factions including those risks and uncertainties mentioned or referred to in this press release. Accordingly, you should not rely on those forward-looking statements as a prediction of actual future results.