

## **ASX RELEASE**

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### **Novogen Announces That CanTx Drug Destroys Ovarian Cancer Stem Cell Spheroids**

**25 November 2013, Sydney, Australia:** Novogen Limited (ASX: symbol NRT; Nasdaq: symbol NVGN) today reported that its US subsidiary, CanTx, has found that lead drug candidate Trilexium is highly effective at destroying ovarian cancer spheroid architecture.

Novogen Group Chief Scientific Officer, Dr David Brown, said today, “This result is a important step forward in predicting the likely success of Trilexium in vivo and in the clinic in particular. Spheroids are mini-tumors and the ability of Trilexium to penetrate and to kill these tumor cell structures is a significant step forward for this drug.”

Researchers at Yale University have shown that cancer stem cells isolated from the tumors of ovarian cancer patients are able to form self-renewing spheroids, regarded as a 3-dimensional model of ovarian cancer in the test tube. When injected into a mouse model, these spheroids form highly vascularized tumors mirroring that of the human disease.

Professor Gil Mor of Yale Medical School said, “In terms of drug discovery, these 3-dimensional structures serve as a robust screen to identify drug candidates worth progressing into expensive animal studies. They come directly from drug-resistant tumors and standard-of-care drugs such as paclitaxel and carboplatin have no effect on them”.

“Trilexium is the first drug in our hands that has been shown to penetrate and destroy the spheroid architecture,” Dr Mor added. “This observation demonstrates that Trilexium can diffuse into the spheroid and gives us confidence that it should be able to kill ovarian cancer tumors in vivo”.

Dr Graham Kelly, Novogen CEO, said, “We propose to deliver Trilexium into the peritoneal cavity where ovarian cancer originates and spreads. By packing the drug into a highly targeted delivery system, we are able to deliver significant quantities of the drug directly to the usual multiple tumors.”

#### **About Ovarian Cancer and ovarian cancer stem cells**

The American Cancer Society estimates that over 22,000 women will be diagnosed with ovarian cancer during 2013 and 14,230 American women will die from the disease. It ranks fifth in cancer deaths among women, accounting for more deaths than any other cancer of the female reproductive system. Cancer stem cells are thought to be the tumor-initiating cells in many cancers responsible for both the production of the tumor mass and metastasis. Ovarian cancer stem cells have been isolated and characterized from ovarian

cancers. These cells are highly resistant to chemotherapy and radiotherapy, a property thought responsible for tumor recurrence following successful initial therapy.

### **About CanTx**

CanTx Ltd is a private biotechnology company based in New Haven, Connecticut, and established as a joint venture between Novogen and Yale University. CanTx is dedicated to the development of anti-cancer drugs for the treatment of ovarian cancer.

### **About Novogen**

Novogen Ltd is a public Australian biotechnology company whose shares trade on both the Australian Stock Exchange (symbol 'NRT') and NASDAQ (symbol 'NVGN'). The Company is based in Sydney, Australia and is focused on the development of novel anti-cancer drugs based on two proprietary drug technologies - the super-benzopyran chemical family and anti-tropomyosin drug technology.

### **About Trilexium**

Trilexium belongs to a new class of drug candidates known (structurally) as super-benzopyrans. Members of this family of drugs are showing high potency against both cancer stem cells and somatic cancer cells isolated from both ovarian cancers and glioblastoma cancers.

### **Further information**

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