

**ASX RELEASE**  
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**NOVOGEN AND CANTX APPOINT CONTRACT MANUFACTURERS TO  
PRODUCE CLINICAL BATCHES OF CANTRIXIL™**

*Phase I studies start in 2015*

Sydney, Australia (July 25, 2014) — Oncology drug developer, CanTx Inc, and its parent company, Novogen Ltd. (ASX; NRT: NASDAQ; NVGN), today announced that they have named two key contract manufacturing organizations (CMOs) to produce clinical batches of the experimental anti-cancer drug, Cantrixil™. CanTx and Novogen expect to file an Investigational New Drug (IND) application for Cantrixil early next year and to advance this compound into the clinic by mid- 2015.

Cantrixil, being developed by CanTx Inc, a joint venture company between Novogen and Yale University, has been developed specifically to treat cancers wholly or largely confined to the abdomen. It is comprised of the active drug, Trx-1, contained within a cyclodextrin carrier and is intended to be injected into the peritoneal cavity of patients. If shown to be as safe and as effective in clinical studies as it has in animal studies, Cantrixil could be the first anti-cancer drug approved as an intra-peritoneal therapy.

The potential of Cantrixil has emerged from studies at Yale that has developed ground-breaking screening tools to assess new drug candidates in the treatment of ovarian cancer.

“I have tested over a hundred new compounds in this model from many companies and never achieved any result that would give me confidence to take any of them into the clinic. Trx-1 was the first drug to show potent efficacy in the laboratory in killing ovarian cancer stem cells, the cells responsible for tumor growth and recurrence,” said Professor Gil Mor, M.D., Director of the Reproductive Science Division at the Department of Obstetrics Gynecology and Reproductive Science at Yale. “We decided that the best way to use Trx-1 was to inject it directly into the abdominal cavity where the ovarian cancer stem cells occur and are establishing the cancer. That was the concept behind Cantrixil and I am delighted to say that we found that it worked in our animal model.”

Trx-1 is the first drug shown to have any meaningful anti-cancer action against ovarian cancer stem cells, and Cantrixil is the first product shown to block the development of carcinomatosis in a mouse model developed by Yale to replicate the growth of ovarian cancer in women.

The companies chose Illinois-based Regis Technologies, Inc, for its ability to be able to scale-up quickly and with extensive experience in chiral chemistry. Regis will be producing the active pharmaceutical ingredient, Trx-1.

Maryland-based Pharmaceuics International, Inc. will manufacture the finished dosage form of Trx-1 in cyclodextrin as a sterile injectable formulation that meets stringent manufacturing, sterility and stability regulations set down by the U.S. Food and Drug Administration (FDA).

“It is a pleasure to be working with two great CMOs. Both have proven track records in being able to meet exacting standards and timelines,” Dr. Andrew Heaton, Novogen Group Vice-President, Drug Discovery and Manufacture, said. “Both also have a strong history of assisting companies with the development of formulations, from pre-clinical through to commercial manufacture. Having relationships with such companies also meets our long term corporate goal of seeing Cantrixil progress from an experimental to a commercial product.”

Novogen Group CEO, Graham Kelly, PhD, emphasized the significant nature of these contracts. He said: “We are developing a product that we expect eventually to be the first anti-cancer drug approved specifically as an intra-peritoneal therapy. A number of hospitals currently give standard anti-cancer drugs intra-peritoneally off-label for the treatment of ovarian cancer and some other abdominal cancers, but that heightens their toxicity, meaning that this approach remains cautious. In our hands, Cantrixil has proven to be well tolerated in animals at doses delivering a significant anti-cancer effect.”

“This is an exciting path that we are now on,” Dr. Kelly continued. “The manufacturing programs currently underway will furnish us with sufficient drug to complete the IND process and to undertake Phase 1 studies in patients with late-stage ovarian cancer in 2015.”

Trx-1 has been licensed by Novogen to CanTx.

### **About Cantrixil**

Cantrixil is a construct of active ingredient, Trx-1, in a cyclodextrin carrier. Trx-1 is a super-benzopyran compound selected for its potent ability to kill ovarian cancer stem (CD44-positive) cells and their daughter cancer (CD44-negative) cells. Trx-1 inhibits electron-transfer mechanisms across cell membranes, resulting in both caspase-dependent and caspase-independent cell death. Trx-1 is a pan-acting anti-cancer agent with potent activity against a wide range of human cancer cell types including pancreatic cancer and colo-rectal cancer. In addition to its utility in the treatment of ovarian cancer, Cantrixil also is being investigated pre-clinically for its utility in the treatment of pancreatic cancer and certain other cancers of the abdominal cavity.

### **About Novogen Limited**

Novogen is a public, Australian drug-development company whose shares trade on both the Australian Securities Exchange ('NRT') and NASDAQ ('NVGN'). The Company has two main drug technology platforms: super-benzopyrans (SBPs) and anti-tropomyosins

(ATMs). SBP compounds have been created to have a uniform cytotoxic effect against both cancer stem cell and are being developed in the first instance for the treatment of ovarian cancer, neural cancers (glioblastoma, neuroblastoma) and prostate cancer. ATM compounds target the cancer cell cytoskeleton and are being developed for the treatment of melanoma and prostate cancer.

Further information is available on the Company's website, [www.novogen.com](http://www.novogen.com).


### **About CanTx, Inc.**

CanTx Inc. is a joint venture between Novogen and Yale University. Novogen owns 85% of CanTx. Novogen has licensed Trx-1 to CanTx and that company is focused on the development of novel therapies that target the cancer stem cells of tumors that arise within the abdominal cavity. CanTx is based in New Haven, CT.

Further information is available on the Company's website, [www.can-tx.com](http://www.can-tx.com).

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