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## NOVOGEN ANNOUNCES IMPORTANT DISCOVERY IN REGENERATIVE MEDICINE PROGRAM

Novogen Limited (ASX:NRT; NASDAQ:NVGN), an Australian/US biotechnology company, today announced an important discovery in its regenerative medicine program that has delivered a key proof-of-concept step forward in the quest to develop drugs capable of stimulating the function of brain tissue stem cells.

Regenerative medicine is concerned with repairing or replacing tissue lost due to age, disease, damage or congenital defects. In the case of the brain, damage associated with stroke, head trauma or neurodegenerative disease represents a very significant unmet clinical need for such therapies.

Novogen scientists now in an important scientific breakthrough have identified a family of compounds with an ability to promote the growth and activity of normal brain stem cells.

The dominant approach being taken to brain regeneration is the introduction of tissue stem cells that have been cultured outside of the body. However, delivery of these cells through the skull is very invasive and, so far, these cells seem to be susceptible to the same constraints that limit the resident stem cell population.

Work in the 1990's showed that the old adage, 'We continue to grow brain cells until age 21, and from then on it's all downhill', was, in fact, untrue. Close examination revealed that part of the hippocampus, the main site of learning and memory within the brain, is constantly renewed throughout life by a pool of dividing stem cells. A second discrete pool of stem cells generates daughter cells that can migrate to sites of brain damage to facilitate repair. Unfortunately, for reasons that are not currently understood, these migrating stem cells fail to produce enough new neurons in the damage site to provide substantial recovery.

Novogen adopted the alternative approach of seeking drugs that would promote the migration of stem cells to the site of injury, seek to retain those stem cells at the damaged site, and then promote their regenerative capacities. This offered the potential of a non-invasive, well-tolerated, medicinal approach to a widespread problem.

In April 2014, Novogen established a partnership with Genea Biocells, an Australian company with world-leading expertise in the production, growth and development of human embryonic stem cells. The original purpose of that collaboration was to mine the Company's super-benzopyran drug technology platform for new therapies with the capacity to repair aberrant stem cells in people with various neurodegenerative and musculedegenerative disorders such as muscular dystrophies and motor neurone diseases.

That program recently was extended to look at the ability of that same drug platform to stimulate the growth of healthy brain stem cells to create new nerve cells. That has been achieved in what is the first key step in the path to the development of a new family of drugs to treat brain injury.

## **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 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, including the cancer stem cells. The molecular target is a trans-membrane electron-transfer pump mechanism oncogene that is common to all cancer cells. Cells die by respiratory distress and mitochondrial disintegration.

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

The Company pipeline comprises three SBP drug candidates (TRXE-002, TRXE-009, TRXE-0025) and one ATM drug candidate ('Anisina').

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

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