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Brain cancer drug may be effective in melanoma treatment

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Singapore: Australia based Novogen's lead candidate, TRXE-009, developed for the treatment of brain cancers, has shown to be effective in melanoma treatment in pre-clinical studies.

Based on the positive result in preclinical studies, Novogen is considering TRXE-009 as an important new potential treatment for melanoma, including for the treatment of secondary brain cancers due to melanoma, for which there currently are no effective therapies.

The company states that it also reflects the evidence of the hypothesized link between brain cancer and melanoma. The link has long been considered a possibility because nerve cells and melanocytes (the melanin pigment-bearing cells in skin that lead to melanoma) have a common origin in the embryo known as the neural crest. This primitive tissue gives rise to the neural cells that go on to form the brain, spinal cord, and peripheral nerves, as well as cells that form the structures of the skull; melanocytes also come from this embryonic tissue. Up till now, no functional link has been found between brain cells and melanocytes, or between brain cancer and melanoma.

TRXE-009 has been confirmed as a potential new treatment for both adult and paediatric neural cancers. TRXE-009 previously has been announced as a world-first in having exceptionally high killing activity against adult brain cancer (glioblastoma multiforme) stem cells, and against the paediatric brain cancers - medulloblastoma and DIPG (diffuse interstitial pontine glioma) - all tumors that are highly resistant to known chemotherapies. That same high potency is now confirmed

against melanoma cells, with activity unaffected by the tumor's BRAF gene status.

Dr Graham Kelly, CEO, Novogen said, "This latest finding brings the value of TRXE-009 into true perspective for us. We initially developed the compound for brain cancer. We saw it as the first chemotherapy with the potential to make a meaningful difference to the survival prospects of patients, both adult and children, with primary brain cancer."

"From there we looked at its ability to kill other cancers of neural origin, and discovered that the same potency against brain cancer cells extended to neuroblastoma cells, a potential deadly cancer in children that arises in peripheral nerve tissue outside of the brain."

"With the realisation that we arguably had the first anti-cancer drug capable of recognising cancers arising in tissues with a common neural crest origin, it was an obvious next step to look at melanoma, with the outcome that we are announcing today," Dr Kelly explained.

Novogen will be delivering TRXE-009 as a proprietary construct known as Trilexium. Trilexium has been developed to maximise the bio-availability of the drug to cancer cells in the body. Animal xenograft studies of human cancer have confirmed the efficacy of Trilexium.