

TRXE-009 (Trilexium)

For neural cancers in adults and children

A breakthrough chemotherapy candidate displaying the first preferential cytotoxic activity against cancer cells of neural origin.

The vital statistics

Worldwide there are about 240,000 cases of brain and nervous system tumours per year.

Approximately 24,000 adults are diagnosed in the US each year with brain cancer and about 14,300 will die from that cancer.

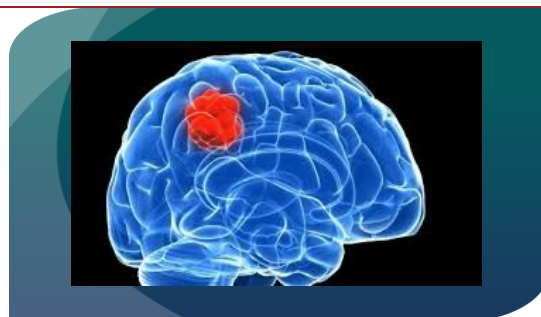
Glioblastoma multiforme (GBM) is the most common and aggressive form of brain cancer in adults. Despite recent advances in surgery, radiation, and chemotherapy, it remains a virtually incurable disease. The overall 5-year survival rate is less than 5% and median survival for recurrent GBM is less than 6 months.

A patient with brain cancer loses on average 12 years of potential life; the highest of all cancers.

The highly aggressive nature of brain cancer means that the average household cost of brain cancer is 5-times that of prostate or breast cancer; in Australia it has been costed at \$1.9M per patient. The impact on patient families, friends and co-workers is the greatest of all cancers.

Brain cancers are the most common form of solid cancer in children and adolescents with 4000 cases diagnosed each year in the US.

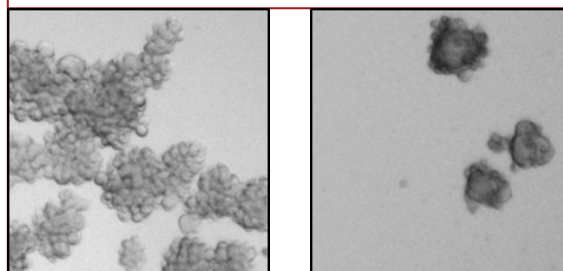
Brain cancer is the major cause of death from disease in children and adolescents in developed countries.



Trilexium Features

Highly active at very low concentrations against

- * GBM
- * GBM stem cells
- * Neuroblastoma
- * Medulloblastoma
- * Diffuse intrinsic pontine glioma (DPIG)



GBM cells collected from a patient following unsuccessful treatment and grown in cell culture under conditions that promotes an aggressive stem cell-like state.

- * Cells on left grown in the absence of TRXE-009.
- * Cells on right grown in the presence of TRXE-009.

The challenge

Very few drugs manage to cross the blood-brain barrier, a chemical barrier protecting the brain. **BUT**

even if they could cross, brain cancer cells are notoriously insensitive to chemotherapy. **BUT**

even if a drug could be found that kills brain cells, the problem would be that the brain cancer stem cells would be unaffected and would go on to cause the cancer to recur.

Trilexium—also in melanoma

Trilexium has proven to be just as highly toxic to melanoma cells as to neural cancer cells.

Why melanoma?

During embryonic development, a collection of primitive cells is formed known as the **neural crest**. These primitive cells then go on in the foetus to form brain cells and peripheral nerve cells, as well as the bony structure of the skull, and **melanocytes**, the ultimate source of **melanoma**.

Melanoma and brain cancer have a primitive connection.

Trilexium is the first chemotherapy to make that connection.

Trilexium

A drug candidate for the treatment of

- * Primary brain cancer in adults
- * Secondary brain cancers in adults
- * Primary brain cancer in children
- * Neuroblastoma in children