23 April 2020 **Sydney, Australia**

Pipeline Expands With Potential New Brain Cancer Treatment

Highlights:

- **Noxopharm confirms second pipeline drug program**
- **Promising new approach to blocking glioblastoma multiforme growth and invasiveness**
- **Test compound passes crucial proof-of-principle test**
- **Estimated 230,000 deaths p.a. globally from cancers of the brain and spinal cord. Significant unmet need.**

Sydney, 23 April 2020: Noxopharm (ASX:NOX) reports important progress in its brain cancer program with confirmation that an isoflavonoid drug candidate has passed the crucial first-step, proof-of-principle test for this program in laboratory studies, clearing the way formally to become the Company's second pipeline drug program.

This expands the Company's drug pipeline program to two core programs, building on its lead oncology drug candidate, Veyonda®.

Recent research shows that the brain's main neurotransmitter chemical, glutamate, is a key driver of growth of glioblastoma multiforme (GBM) cells, the most common form of brain cancer in adults, with glutamate activity believed to be underlying the typical aggressive growth and invasive nature of GBM[1] .

An estimated 230,000 deaths occur each year globally from cancers of the brain and spinal cord, with GBM being the most common form. GBM has a poor prognosis as a result of limited treatment options and rapid tumour growth, with a survival rate of about 14 months following diagnosis.[2]

With proof-of-principle achieved, the Noxopharm program now will proceed to confirm its lead candidate and move into a pre-clinical program with a target of entering a clinical study in late-2021.

Comments

Dr Olivier Laczka, Noxopharm Director of Drug Discovery and Research, said, "Our laboratory studies have confirmed earlier reports by others that glutamate promotes the growth and proliferation of human GBM cell lines. The critical step we have taken in moving this new approach into a potentially effective treatment is in showing that we have a test compound capable of blocking that action, effectively halting the proliferation of GBM cells in the presence of glutamate."

Dr Graham Kelly, Noxopharm CEO, said, "Our aim is to develop a drug pipeline based on our isoflavonoid drug development technology platform. Big pharma companies are looking for new, innovative approaches to major unmet needs, and a pipeline of drugs with novel mechanisms of action is what we are building."

"Our brain cancer program is one such new way of thinking. It opens the door to what we believe will be a more effective and safer way to treat GBM by offering a means to slow the growth and invasiveness of brain cancers to a degree that radiotherapy and chemotherapy have failed to do to date in most patients. This new approach is akin to blocking the effect that testosterone has in driving the growth of prostate cancer, or estrogen with breast and ovarian cancers. Blocking these hormonal drivers has proved very effective in treating those cancers and the data we now have suggests the same is possible for GBM."

Rationale

The brain predominantly is made up of neurons and glial cells with neurons being responsible for much of what we understand to be the brain's functions, and glial cells (which outnumber neurons about 50:1) providing support to neurons. GBM arises from glial cells.

Neurons are connected to each other through junctions known as synapses, with electrical impulses crossing those junctions via chemicals known as neurotransmitters. Glutamate is the brain's main neurotransmitter.

Neurons and their supporting glial cells communicate closely, with glial cells intimately involved in the formation and maintenance of neuronal synapses.[3] This closeness extends to when the glial cells become cancerous, with exposure to glutamate serving to promote the growth and invasiveness of the cancerous glial cells.[1]

Where most other chemotherapies target the cancer cells directly, an approach that has proven to be poorly effective to date, Noxopharm is looking to block a key source of growth of the cancer cells. The proof-of-principle finding released today provides evidence that this is possible.

References

1. Ventakamarani V et al. (2019) Glutamatergic synaptic input to glioma drives brain tumour progression. Nature 573:532-538
2. Davis M E. (2016) Glioblastoma: Overview of Disease and Treatment. Clin J Oncol Nurs. 2016 October 1; 20(5): S2–S8.
3. Stogsdill JA, Eroglu C. (2017) The interplay between neurons and glia in synapse development and plasticity. Curr Opin Neurobiol 42: 1-8. [www.ncbi.nlm.nih.gov/pmc/articles/PMC5316301/]

About GBM

GBM is a rare cancer (global incidence less than 10 per 100,000 people), qualifying as an Orphan Disease for the purposes of the U.S. FDA. It has a poor prognosis with a survival rate of about 14 months following diagnosis. It can occur at any age, but peak incidence is between 55-60 years. Glial cells account for about 50% of all cancers arising in the brain and spinal cord. Cancers of glial cells are glioblastoma, oligodendroglioma, astrocytoma and ependymoma.

About Noxopharm

Noxopharm is a clinical-stage Australian oncology drug development company with offices in Sydney and New York. The Company has a primary focus on the development of Veyonda® and is the major shareholder in the non-oncology drug development company, Nyrada Inc. (ASX:NYR).

www.noxopharm.com

Investor & Corporate enquiries:
Prue Kelly
M: 0459 022 445
E: info@noxopharm.com

Company Secretary:
David Franks
T: +61 2 8072 1400
E: David.Franks@automicgroup.com.au

Media enquiries:
Catherine Strong
Citadel-MAGNUS
T: 02 8234 0111
E: cstrong@citadelmagnus.com

Graham Kelly, CEO and Chairman of Noxopharm, has approved the release of this document to the market.

Forward Looking Statements

This announcement may contain forward-looking statements. You can identify these statements by the fact they use words such as “aim”, “anticipate”, “assume”, “believe”, “continue”, “could”, “estimate”, “expect”, “intend”, “may”, “plan”, “predict”, “project”, “plan”, “should”, “target”, “will” or “would” or the negative of such terms or other similar expressions. Forward-looking statements are based on estimates, projections and assumptions made by

Noxopharm about circumstances and events that have not yet taken place. Although Noxopharm believes the forward-looking statements to be reasonable, they are not certain. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond the Company's control that could cause the actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statement.