Australia and Europe Grant Patent on Use of Veyonda® To Achieve Safer Chemotherapy

Highlights

- **Australia and Europe join Japan in allowing patent claims that are fundamental to the Company's objective of Veyonda® becoming a key component of the annual US$150 billion chemotherapy market**
- **Claims relate to Veyonda enabling lower, safer dosages of common chemotherapies to be used without loss of anti-cancer effectiveness**
- **Purpose is to provide active cancer therapy to the significant proportion of patients unable to undergo full-strength chemotherapy.**

Sydney 25 October 2021: Australian clinical-stage drug development company Noxopharm Limited (ASX:NOX) announces that it has received Notices of Allowance from both the Australian and European Patent Offices for patent claims covering the use of idronoxil (the active ingredient in Veyonda®) as a chemo-enhancing drug.

The patent relates to the use of Veyonda to allow dosages of chemotherapy to be lowered to safer levels without compromising their anti-cancer effectiveness. In fact, the Company is confident the combination can deliver an even stronger anti-cancer response at the same time as offering the safer benefit.

The patent entitled 'Chemotherapy improvements' (AU:2017254774) covers a method of treating or preventing cancer by administering Veyonda with a low dose (up to 90% of a therapeutic dose) of chemotherapy drugs belonging to the platinum or taxane families or a combination thereof.

The patent remains valid until at least the 21st April 2037.

The patent remains under examination in the U.S.

Noxopharm CEO, Graham Kelly, said, "*A high proportion of cancer patients are deprived of the benefits of chemotherapies because of toxic side-effects. The development of side-effects leads to drug dosages being lowered or stopped altogether. Other patients either are too ill or too elderly or just unwilling to even start chemotherapy. That is the gap that we see Veyonda filling by allowing the patient to still gain the benefit of the chemotherapy but at dosages that are much better tolerated. With an estimated US$150 billion spent globally each year on chemotherapy, that gap represents a very major medical need and commercial opportunity.*

Allowance of these claims is a major milestone in the Company's aim to see Veyonda become a standard of care companion drug in oncology for chemotherapy, radiotherapy and immunotherapy. With the radiotherapy (ASX Announcement 27 September 2021) and immunotherapy patent positions looking strong, the allowances announced today represent an important step towards achieving that eventual aim, something that we are confident will be attractive to major pharma companies with strong chemotherapy drug portfolios."

The need. Platinum drugs (cisplatin, carboplatin, oxaliplatin, nedaplatin) and taxane drugs (paclitaxel, docetaxel, carbazitaxel) rank among the most commonly used chemotherapy drugs, remaining the primary forms of treatment for cancers of the breast, prostate, ovary, lung, head and neck, bladder, cervix, stomach and testicle. Their anti-cancer use, however, comes at the price of a wide range of side-effects, and while patients are closely monitored for these side-effects and treated accordingly, they are sufficiently severe to require a reduction in dosage in about one-third of patients and stopping therapy altogether in about 10%.[1] A separate proportion of patients either are too ill or considered too elderly to undergo chemotherapy or choose not to because of the side-effects.

Neurotoxicity is the most severe side-effect involving peripheral neuropathy, vision loss, hearing loss, limb paralysis and reduced cognitive function. Nausea, vomiting, diarrhoea, low white blood cell count leading to increased risk of infection, anaemia, hair loss, weakness, mouth ulcers, severe allergic reactions and liver toxicity are the other most common side-effects.

Idronoxil enhances chemotherapy. Pre-clinically, idronoxil increases the cancer-killing effect of all common chemotherapies up to magnitudes exceeding 1000-times, an effect limited to cancer cells without increasing the sensitivity of healthy cells to the damaging effects of the drugs.[2,3]

The Company's CEP-1 study has provided clinical proof-of-concept. That study combined Veyonda with dosages of carboplatin between approximately 50-75% of standard dosages in patients with a range of late-stage solid cancers that had become resistant to standard chemotherapies. The outcome of that study (*ASX:30 April 2021*) was a high rate of overall tumour control despite using low dosages of carboplatin, all with a high level of tolerability.

References

1. Chang J (2000) *Chemotherapy dose reduction and delay in clinical practice. evaluating the risk to patient outcome in adjuvant chemotherapy for breast cancer*. Eur J Cancer 2000 36, Suppl 1:S11-4 doi: 10.1016/s0959-8049(99)00259-2.
2. Brown D et al (2008). *Idronoxi*l. Drugs of the Future 2008, 33(10): 844-860 doi: 10.1358/dof.2008.033.10.1260120
3. Alvero AB et al (2008). *Phenoxodiol – a chemosensitizer in the midst of cancer chemoresistance*. US Oncology.4:39-41.

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Graham Kelly, CEO and Managing Director of Noxopharm, has approved the release of this document to the market on behalf of the Board of Directors.

About Noxopharm

Noxopharm Limited (ASX:NOX) is an Australian clinical-stage drug development company focused on the treatment of cancer and cytokine release syndrome (septic shock).

Veyonda® is the Company's first pipe-line drug candidate currently in Phase 2 clinical trialling. Veyonda® has two main drug actions – a moderating effect on the ceramide/sphingosine-1-phosphate balance and inhibition of STING signalling. Activity against the former target contributes to its dual-acting oncotoxic and immunomodulatory functions designed to enhance the effectiveness and safety of standard oncology treatments, i.e., chemotherapies, radiation therapies and immune checkpoint inhibitors. Activity against the latter target provides an anti-inflammatory effect, as well as contributing to an anti-cancer action, but also potentially blocking septic shock.

Noxopharm is running comprehensive drug discovery programs in both oncology and inflammation, and is the major shareholder of US biotechnology company, Nyrada Inc (ASX:NYR), active in the areas of drug development for cardiovascular and neurological diseases.

To learn more, please visit: noxopharm.com

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