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NOX SUBSIDIARY, NYRADA, ANNOUNCES KEY PROGRESS WITH CHOLESTEROL-LOWERING DRUG

- **NYX-330 designed as small molecule, oral PCSK9 inhibitor**
- **Passes initial critical pre-clinical tests of effectiveness**
- **Intended for use in combination with statin drugs to achieve substantial falls in blood LDL cholesterol levels**
- **Potential to have a significant impact on the incidence of cardiovascular disease.**

Sydney, 27 August 2018: Noxopharm (ASX: NOX) today announces that its majority-owned US subsidiary, Nyrada (the 'Company'), has made important progress in the development of its cholesterol-lowering drug candidate, NYX-330, with a number of key STOP-GO milestones being passed successfully. The Company believes that passing those milestones goes a long way to confirming the breakthrough potential of NYX-330.

James Bonnar, Nyrada Vice-President, Research and Development said," We appear to have succeeded where others have failed in producing a small molecule drug candidate that is meant to combine with the statin drugs to help more people lower their blood cholesterol levels to healthier levels."

NYX-330 has been designed to block the action of the plasma protein, PCSK9, recently recognised within the pharmaceutical industry as an important drug target in efforts to treat high blood cholesterol levels. Two recent large clinical trials have validated that blocking PCSK9 function on top of standard statin drug therapy leads to substantially greater (50-60%) falls in blood cholesterol levels compared to statins alone, with a resulting significant reduction in the incidence of cardiovascular diseases such as heart attack and stroke.

Initial attempts at developing a PCSK9-inhibiting drug sought to mimic the features of a statin drug – a small molecule drug in a convenient, oral, once-daily tablet that would enjoy the same level of subsidisation by health authorities that statins enjoy.

Those early attempts to discover a small molecule drug proved unfruitful, with the only two PCSK9 inhibitors that have come to market being evolocumab and alirocumab, both large molecule drugs

(monoclonal antibodies) that need to be injected (every 2 or 4 weeks) on an ongoing basis, plus carrying a cost of about USD$14,000 p.a. In Australia, subsidisation of both drugs by the Pharmaceutical Benefits Scheme is limited to a relatively small population of patients with familial hypercholesterolaemia.

NYX-330 is a first-in-class, small molecule inhibitor of PCSK9 based on a novel family of chemicals. Nyrada is seeking to develop NYX-330 with marketing objectives of being a convenient, oral, once-daily tablet whose cost and level of effectiveness would be more likely to attract subsidisation for a much wider proportion of the community.

NYX-330 now has passed a series of critical tests conducted by the Company and involving both laboratory and animal studies designed to confirm its potential ability to meet those marketing objectives.

With that proof-of-principle established, ongoing studies are focusing on optimising the drug-like nature of NYX-330. A key test will be its long-term safety, which laboratory and animal studies to date have failed to raise any concerns, but nevertheless now needs to be confirmed in longer-term animal studies ahead of a first-in-human study expected to take place in 2020.

Nyrada is one of a handful of companies known to be developing a drug against PCSK9, with the Nyrada small molecule approach thought to be unique.

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About LDL cholesterol and cardiovascular disease
Low-density lipoprotein cholesterol (LDL) is the form in which cholesterol, an important structural component in the human body, is transported in the blood to the tissues. When LDL cholesterol levels exceed normal levels, the excess LDL particles enter the walls of arteries, creating a fatty deposit disease known as atherosclerosis that leads to hypertension, heart attack and stroke. Cardiovascular disease remains the main cause of death in most communities, and worldwide, an increasingly high proportion of individuals (both adults and children) have blood LDL cholesterol levels considered to be putting them at risk of cardiovascular disease with the medical profession in many countries continuing to advocate for lower blood LDL cholesterol levels.

About controlling LDL cholesterol levels
LDL cholesterol levels in blood are the result of a balance between the rate at which it is made and placed into the blood, and the rate at which it is removed from the blood, with both functions mainly conducted by the liver. The removal of LDL cholesterol from blood takes place via proteins (known as LDL-receptors) on the outer surface of liver cells. These receptors bind to LDL particles in the passing bloodstream. The receptor and its attached LDL particle then are internalised in the liver cell where the LDL particle is released and degraded and the LDL-receptor recycled back to the surface of the liver cell to repeat the process. The number of LDL-receptors performing this task plays an important role in determining LDL cholesterol levels in blood.

About PCSK9
Proprotein convertase subtilisin/kexin type 9 (PCSK9) is made by different tissues and plays an important supporting role to the LDL-receptors in the body's ability to maintain LDL cholesterol levels in blood. The role of PCSK9 is to help keep LDL cholesterol within the blood by tempering the rate at which the liver removes LDL cholesterol from the blood. PCSK9 binds to the LDL receptors; when the receptor subsequently binds to an LDL particle and moves inside the liver cell, all 3 components (LDL particle, LDL-receptor, PCSK9) degrade, resulting in the LDL-receptor not being recycled. The result is a net loss of LDL-receptors and a consequent lowered ability to remove LDL particles from the blood.

About statin drugs
The so-called 'statin' drugs have been standard of care for the treatment of high blood LDL cholesterol levels for 20 years. Approximately 1 in 3 US citizens over the age of 45 and about 200 million people worldwide use statins. Global sales of statins in 2017 totalled US$19 billion and statins remain the most prescribed drugs in the world,

Statins block the production of LDL cholesterol by inhibiting the liver enzyme, HMG-CoA reductase, with LDL cholesterol levels being lowered in the order of about 20-55% depending on dose and the particular statin.

A 2013 review found that for every 138 patients treated for 5 years, one fewer dies and for every 49 treated, one fewer has an episode of heart disease. This relatively modest benefit in terms of lowered risk of cardiovascular disease is now thought to be a consequence of statin therapy producing a compensatory increase in PCSK9 levels, with the resulting higher rate of retention of LDL cholesterol in the blood counter-balancing to some extent the LDL cholesterol-lowering effect of the statins.

Side-effects of statin therapy include liver damage, increased risk of diabetes, muscle pain, and possibly cognitive decline, suggesting that there could be benefit in using a PCSK9i drug to allow statin dosages to be lowered.

About the PCSK9i program

The PCSK9i drug program was initiated by private Australian drug discovery company, Cardio Therapeutics Pty Ltd ('Cardio'), a subsidiary of Altnia Holdings Pty Ltd ('Altnia'), a family company of Dr Ian Dixon, a non-executive director of Noxopharm. Nyrada acquired Cardio in 2017.

About NYX-330

NYX-330 is a small molecule drug candidate that binds to PCSK9 and blocks its ability to bind to the LDL-receptor.

About Nyrada

Nyrada Inc is a US biotechnology company based in New York City. Nyrada was established in August 2017 with three pre-clinical drug development programs: (i) a PCSK9 inhibitor; (ii) an anti-inflammatory drug; (iii) a neuroprotectant drug to block secondary brain damage following stroke and concussion. Current shareholding of Nyrada is 67% Noxopharm and 33% Altnia.

About Noxopharm

Noxopharm is a clinical-stage Australian oncology drug development company with offices in Sydney and Hong Kong. The Company has a primary focus on the development of drugs to sensitise cancer cells to radiotherapy and chemotherapy. NOX66 is the first pipeline product, with later generation drug candidates under development.

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Forward Looking Statements

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