

Noxopharm Announces Novel mRNA Vaccine Enhancer

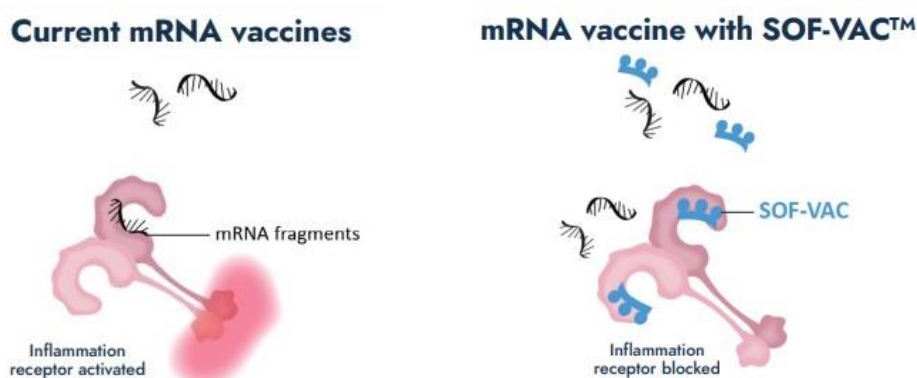
- Proprietary SOF-VAC™ asset with potential to make mRNA vaccines safer, better tolerated by patients and more cost-effective to manufacture
- Preclinical first-in-class mRNA technology based on company's Sofra™ platform
- Smallest molecule of its type to have demonstrated strong activity against inflammation
- Developed in collaboration with strategic partner Hudson Institute of Medical Research
- Growing worldwide activity in multi-billion mRNA market

Sydney, 28 March 2023: Innovative biotech company **Noxopharm Limited (ASX:NOX)** announces the development of a new proprietary product candidate based on mRNA technology as part of the company's Sofra™ preclinical platform.

A lead candidate has now been selected for further development. Under the ongoing collaboration with the Hudson Institute of Medical Research, the team has synthesised a novel 'vaccine enhancer' called SOF-VAC™.

This preclinical technology aims to make a broad range of mRNA vaccines safer by reducing inflammation associated with mRNA vaccines. In addition, the technology has the potential to support more cost-effective mRNA vaccine manufacturing.

The team's recent development work on SOF-VAC™ has shown strong *in vitro* and *in vivo* activity against inflammation. SOF-VAC™ represents a first-in-class achievement as the smallest known molecule of its type to have demonstrated this activity. The major advantage of such a small molecule is it reduces the risk of off-target effects compared to larger molecules of this type.



In the left image, fragments of mRNA bind to inflammation receptors in the body causing overstimulation, which results in inflammation and other vaccine side effects. In the right image, SOF-VAC™ blocks inflammation receptors, thereby blocking inflammation and reducing vaccine side effects.

mRNA technology has achieved prominence in recent years as the basis for two of the most successful COVID-19 vaccines, but beyond the recent pandemic there is significant potential for it to be used for a wide range of other diseases. According to [Precedence Research](#), the mRNA market in 2021 was US\$42 billion, and is expected to grow to US\$128 billion by 2030 at a compound annual growth rate of 13%.

Noxopharm and its Pharmorage subsidiary have been developing the SOF-VAC™ mRNA technology under the company's strategic partnership with the Hudson Institute, which was formally established in November 2021. The research was recently supported by the Victorian Government, which [granted A\\$1.45 million](#) to the Hudson Institute in June 2022 to fund the joint development of novel anti-inflammatory compounds with Pharmorage.

Over the last few years, the company has been building a robust IP position around this lead vaccine candidate and has a family of patent applications in various stages of examination.

In addition to the SOF-VAC™ vaccine enhancement program, the team has also made significant progress in the drug development part of the Sofra™ platform, advancing its inflammation drug program that includes the development of standalone treatments for autoimmune diseases such as [lupus](#).

Noxopharm CEO Dr Gisela Mautner said: "mRNA technologies represent one of today's most exciting and rapidly developing areas of medicine. They are expected to play an even greater role in the years ahead as they become applicable to numerous diseases and we believe SOF-VAC™ could contribute significantly in this field.

"Our collaboration with the Hudson Institute team is delivering promising results in the lab, and we aim to build on those and generate interest in our assets. To that end, we will dedicate appropriate resources to this initiative, releasing more data in the future as we further strengthen our IP position, while at the same time keeping on track with our oncology-related research activities."

Hudson Institute A/Prof Michael Gantier said: "I have been active in this field of research for over 20 years, and am very excited about mRNA technologies like SOF-VAC™ as we start to see their potential emerge. Today's levels of industrial activity related to mRNA therapeutics and mRNA vaccines in particular are a testament to the maturity these technologies have reached. But there is still a lot more to discover and develop as we move forward to create new kinds of treatments based on these technologies."

-ENDS-

About Noxopharm

Noxopharm Limited (ASX:NOX) is an innovative Australian biotech company discovering and developing novel treatments for cancer and inflammation.

It has three active drug development programs: its lead clinical-stage drug candidate Veyonda®, plus two innovative technology platforms Chroma™ (oncology) and Sofra™ (inflammation and

autoimmunity, including mRNA vaccine enhancement), which provide the basis for active development of a growing pipeline of new proprietary drugs.

Noxopharm also has a major shareholding in the US biotech company Nyrada Inc (ASX:NYR), which is active in the areas of drug development for cardiovascular and neurological diseases.

To learn more, please visit: noxopharm.com

About Hudson Institute of Medical Research

A global bioscience medical research leader, Hudson Institute's sole focus is on powering breakthrough scientific discoveries into improved health care that will transform lives. We strive to improve human health through ground-breaking, collaborative, medical research discoveries and the translation of these to real world impact.

Hudson Institute scientists research five areas of medical need

- Inflammation
- Reproductive health and pregnancy
- Infant and child health
- Cancer
- Hormones and health

To learn more, please visit: www.hudson.org.au

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

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"

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