



Study results show new Sofra™ drug reduces inflammation

- **Promising new class of therapeutics reduces inflammation in autoimmune disease in preclinical studies**
- **Demonstrates effectiveness of Sofra™ and SOF-VAC™ vaccine enhancer technology**
- **Research with Hudson Institute of Medical Research presented at prestigious international lupus conference**

Sydney, 19 May 2023: Innovative biotech company **Noxopharm Limited (ASX:NOX)** announces a new preclinical product candidate from its Sofra™ technology platform has shown effectiveness against inflammatory skin disease in preclinical models.

In research presented at the 15th International Congress on Systemic Lupus Erythematosus (LUPUS 2023) currently being held in Seoul, Noxopharm reported its novel drug, known as SOF-XX, represents a promising new class of therapeutics for the treatment of autoimmune diseases such as psoriasis and lupus.

Additionally, these results also act as preclinical proof of concept for the company's recently announced SOF-VAC™ mRNA vaccine enhancer, which shares the same underlying Sofra™ technology.

Estimates of the number of individuals suffering from autoimmune diseases in the US alone range from 14 to 24 million cases.¹ In Australia, an estimated 20,000 patients have lupus. Autoimmune diseases are on average two times more prevalent in females than males, while lupus is nine times more prevalent in females.² The global immunology market is projected to grow from USD 92 billion in 2021 to USD 158 billion in 2028.³

Some autoimmune diseases, including lupus and psoriasis, involve the overactivation of an immune sensor known as Toll-like receptor 7 (TLR7). When Noxopharm's SOF-XX was applied topically via a gel to a mouse model with skin inflammation, it blocked TLR7 activity and thereby significantly protected mice from the development of skin scaling and redness (see appendix for results). There are currently no approved therapeutic inhibitors of TLR7 on the market, making this a unique solution for an urgent unmet need.

The Sofra™ technology platform is being developed in partnership with Melbourne's Hudson Institute of Medical Research via Noxopharm's Pharmorage subsidiary. The technology has potential applications in the treatment of excessive inflammatory responses, as seen during infections and in autoimmune diseases. Noxopharm is also actively investigating the potential for its Sofra™ oligonucleotides to limit the inflammatory side effects associated with mRNA therapeutics and vaccines via the company's proprietary SOF-VAC™ vaccine enhancer.

Noxopharm CEO Dr Gisela Mautner said: "This research demonstrates the effectiveness of the Sofra™ platform at reducing inflammation, which means we can target various diseases

as well as use the same underlying technology to enhance mRNA vaccines. Being selected to present this research to an international audience helps us gain more attention as interest in the technology grows.”

Hudson Institute A/Prof Michael Gantier said: “Our research is heavily focused on treating autoimmune diseases at their source, and studies such as this demonstrate we are on the right track. The ability of the oligonucleotides to reduce inflammation in this way opens up new possibilities for the treatment of many diseases.”

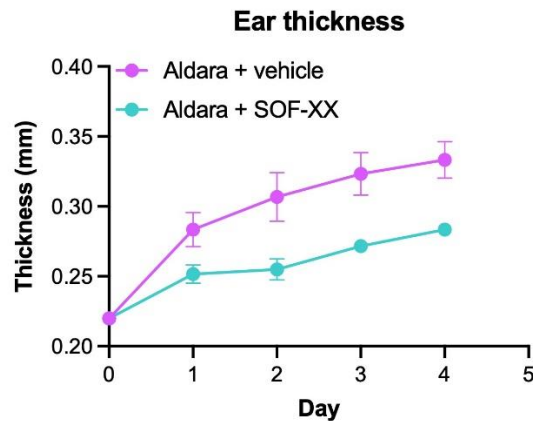
References

1. <https://www.niehs.nih.gov/health/topics/conditions/autoimmune/index.cfm>
2. <https://www.wehi.edu.au/research-diseases/immune-health-and-infection/lupus>
3. <https://www.globenewswire.com/en/news-release/2022/08/17/2499743/0/en/With-8-1-CAGR-Immunology-Market-Size-worth-USD-158-69-Billion-in-2028.html>

Appendix

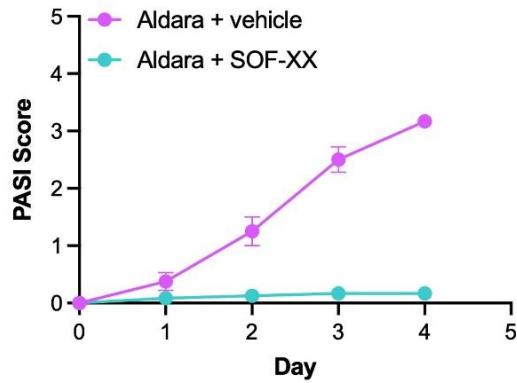
A model of TLR7-driven skin inflammation was created by applying Aldara® cream containing 5% imiquimod (a TLR7 agonist) topically to the back and ear of mice. SOF-XX, the oligonucleotide therapeutic under investigation, was also applied to the same areas.

Mice were scored daily for the appearance and severity of skin inflammation.



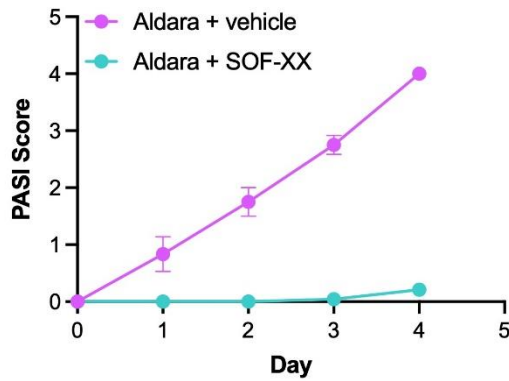
The thickness of the ear, an indicator of inflammatory response, was decreased in mice treated with SOF-XX (turquoise line).

Ear redness



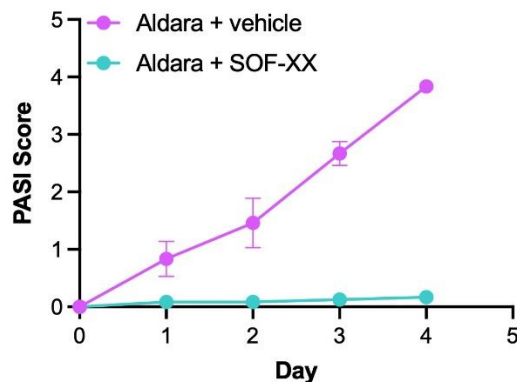
Skin redness on the ears in the SOF-XX treated mice was negligible (turquoise line).

Back scaliness



The scaliness of the skin on the backs of the SOF-XX treated mice (turquoise line) was negligible.

Back redness



The redness of the skin on the backs of the SOF-XX treated mice (turquoise line) was negligible.

-ENDS-



About Noxopharm

Noxopharm Limited (ASX:NOX) is an innovative Australian biotech company discovering and developing novel treatments for cancer and inflammation, including a pioneering technology to enhance mRNA vaccines.

The company utilises specialist in-house capabilities and strategic partnerships with leading researchers to build a growing pipeline of new proprietary drugs based on two technology platforms – Chroma™ (oncology) and Sofra™ (inflammation, autoimmunity, and mRNA vaccine enhancement).

Noxopharm also has a major shareholding in US biotech company Nyrada Inc (ASX:NYR), which focuses on 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.

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