New data shows SOF-SKN™ active ingredient efficacy in patient samples

Highlights

- **New research describes Sofra™ translation into drug candidates**
- **Efficacy shown *in vitro* on blood from patients with systemic lupus**
- **Additional potential demonstrated in samples from rheumatoid arthritis patients**

Sydney, 1 May 2026: Clinical-stage biotech company **Noxopharm Limited (ASX:NOX)** is pleased to announce the release of new data showing the potential of its Sofra™ technology platform in samples from patients with autoimmune disease.

Professor Michael Gantier of Hudson Institute of Medical Research, Noxopharm's exclusive strategic partner in the development of the technology, has posted a bioRxiv preprint as a follow-up to his recent groundbreaking *Nature Immunology* paper, which has now been accessed over 12,000 times online.

A bioRxiv preprint is an early version of a research paper that authors make publicly available on an online server before it has undergone formal peer review and been published by a journal.

In the new manuscript, Professor Gantier and a team of international collaborators, including three Noxopharm employees plus collaborators from Tezcat Biosciences and InhaTarget Therapeutics, provide further insights and data demonstrating how the findings of the *Nature Immunology* paper are being translated into the creation of new therapeutics.

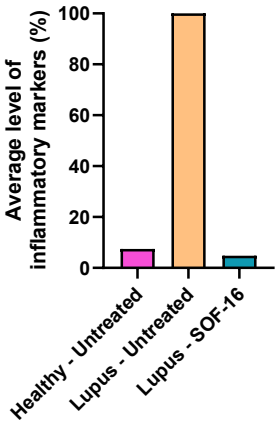
It also represents the first time that SOF-16*, the active ingredient in the company's SOF-SKN™ cutaneous lupus drug candidate, has been tested on samples taken from patients with autoimmune diseases.

The results show that SOF-16 has potent anti-inflammatory activity in two *in vitro* studies, involving blood and joint fluid samples from patients with systemic lupus erythematosus (SLE) and rheumatoid arthritis, respectively.

In the SLE study, the blood of two SLE patients carrying a genetic mutation that causes hypersensitivity of Toll-like receptor 7 (TLR7) – a key target of Noxopharm's drug – was stimulated *in vitro*. The blood from these two SLE patients showed higher levels of TLR7-driven inflammation compared to blood from healthy donors.

Treatment with SOF-16 successfully blocked this inflammation, as demonstrated in the summary figure below which has been adapted from the preprint.

Figure 1 – SOF-16 blocks inflammatory responses of lupus patient blood *in vitro*

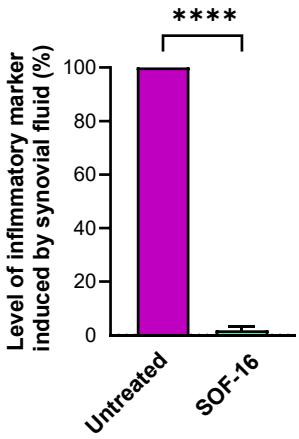


An inflammatory response was induced using a TLR7 agonist (R837) in blood cells from healthy donors and SLE patients, and assessed by the level of two inflammatory markers. The SLE patient blood cells carry a genetic mutation that causes TLR7 hypersensitivity, and showed a much stronger inflammatory response to agonism. Treatment with SOF-16 reduced the levels of the inflammatory markers, with an average decrease of more than 90%.

In the rheumatoid arthritis study, synovial fluid was collected from the joints of rheumatoid arthritis patients. This fluid reflects the inflammatory environment within the joint and contains molecules that drive inflammation, including nucleic acid fragments that can activate TLR7.

When used to stimulate TLR7-responsive cells *in vitro*, the fluid triggered a TLR7-mediated inflammatory response that was significantly reduced by treatment with SOF-16, as demonstrated in the summary figure below which has been adapted from the preprint.

Figure 2 – SOF-16 blocks the inflammatory responses induced by joint fluid from rheumatoid arthritis patients in an *in vitro* model



*Synovial fluid from rheumatoid arthritis patients induced an inflammatory response in a cell-based system (HEK TLR7 cells), as measured by an inflammatory marker. Treatment of SOF-16 almost eliminated the inflammatory signal. **** p<0.0001*

Taken together, the encouraging results from these two independent studies bolster the data package the company is preparing for future regulatory submissions while providing further evidence of SOF-SKN's potential.

Noxopharm CEO Dr Olivier Laczka said: "Professor Gantier and the team have done an outstanding job rapidly progressing the development of this technology. They are clearly demonstrating how the findings of the *Nature Immunology* paper can be translated into

studies that provide real momentum to our SOF-16 project and evidence the wide range of indications our Sofra platform can be developed towards, beyond topical applications for cutaneous lupus erythematosus."

SOF-SKN, which is the topical cream formulation of SOF-16, is initially being developed for the chronic inflammation caused by the autoimmune disease cutaneous lupus erythematosus (CLE), before potential development for other autoimmune-related skin diseases like psoriasis and dermatomyositis. The global CLE market is worth more than US$3.3 billion and is expected to grow significantly over the coming years. The core Sofra™ technology, which includes several other assets beyond SOF-16, could also be further utilised for rheumatoid arthritis and diabetes, plus other diseases linked to immune system dysregulation.

** Referred to as GUC-v16 in the preprint.*

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About the Sofra technology platform

Developed from a breakthrough discovery in the immune system, Sofra comprises a novel class of drugs targeting inflammatory and autoimmune diseases, as well as enhancing RNA therapeutics and vaccines.

Sofra technology has potential applications in a wide range of diseases related to the immune system such as rheumatoid arthritis, lupus and diabetes, as well as other diseases like cancer.

The global autoimmune disease therapeutics market was worth US$163.2 billion in 2024 and is expected to reach US$219.6 billion by 2035, while the worldwide immuno-oncology market was US$43 billion in 2023 and is projected to hit US$284 billion by 2033.

The proprietary platform is based on short nucleic acid sequences, the building blocks of DNA or RNA, known as oligonucleotides. These act on specific immune sensors to regulate inflammation at its source, reducing or stimulating it to control the disease.

Further information and animations: SOF-SKN / SOF-VAC

About Noxopharm

Noxopharm Limited (ASX:NOX) is a clinical-stage Australian biotech company discovering and developing novel treatments for cancer and inflammation, including a pioneering technology to improve the safety profile of a wide range of mRNA medicines.

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 – Sofra™ (inflammation, autoimmunity, mRNA drug enhancement, and oncology) and Chroma™ (oncology).

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 their translation 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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Noxopharm CEO Dr Olivier Laczka 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" 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 (including but not limited to the COVID-19 pandemic) that could cause the actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statement.