



Noxopharm expands collaboration with Hudson Institute

Highlights

- **Expanded program of work for 2025**
- **New targets in promising portfolio of assets**
- **Scientific background to breakthrough discovery**

Sydney, 25 March 2025: Innovative biotech company **Noxopharm Limited (ASX:NOX)** is pleased to announce an expanded program of work for 2025 with its strategic partner, Melbourne's Hudson Institute of Medical Research.

The partnership and in-licensed technology are foundational components of the company's Sofra™ platform, via which Noxopharm is developing a promising portfolio of assets including the SOF-SKN™ topical skin medication for lupus and the SOF-VAC™ program for mRNA vaccines and therapeutics enhancement.

The updated contract will enable Noxopharm and the Hudson Institute team to further advance the Sofra platform. This includes expanding the research into critical inflammation sensors such as TLR7, TLR8, RIG-I and cGAS, as well as exploration of promising targets such as TLR3 and TLR9.

As a separate pipeline within the platform, the company is also enthusiastic about continuing to explore the potential of its Sofra technology in advancing cancer research.

Hudson Institute Director and CEO Professor Elizabeth Hartland said: "Our collaboration with Noxopharm continues to go from strength to strength as the team extends its research program to explore more innovations in combatting inflammation and disease. It is also highly encouraging to see a first clinical trial around the corner, which is a major milestone that demonstrates the success of our ongoing partnership."

Noxopharm CEO Dr Gisela Mautner said: "We are working closely with the Hudson Institute team to rapidly expand our portfolio and identify new commercial opportunities arising from this research. The upcoming HERACLES trial demonstrates our ability to transition concepts from the research stage into the clinic. As the RNA market continues to grow, we aim to position Noxopharm as a leading Australian company in this dynamic field."

Scientific background

Hudson Institute is a leading Australian medical research organisation recognised internationally for discovery science and translational research, and home to Australia's largest group of inflammation and immunity scientists and clinicians.

The partnership with Noxopharm is founded on a breakthrough discovery made by Associate Professor Michael Gantier of the Hudson Institute, an expert in nucleic acids biology, and an international team of researchers.

To protect us against infections, our immune system relies on special immune sensors inside our cells that act like security guards. Two such sensors, called TLR7 and TLR8, selectively detect fragmented pieces of RNA that come from invading viruses or bacteria. Once these RNA fragments are detected, TLR7 and TLR8 sound the alarm, which leads to inflammation that, in turn, fights the infection.

Every day, billions of our cells quietly die and are replaced as part of our body's natural housekeeping. This natural cell death also results in an abundance of RNA fragments. Curiously, these RNA fragments do not trigger the immune system in healthy people – and it is this fundamental question of why immune sensors such as TLR7 and TLR8 do not mistakenly sound the alarm from our own body's RNA fragments that is at the heart of this discovery.

The team's research discovered that some of our own RNA fragments carry a special chemical tag called 2'-O-methyl (2'-OMe). Critically, the team was able to demonstrate that these tagged RNA fragments bind in a different way to TLR7 and TLR8, effectively blocking their activation by other RNA fragments. Thus, this tag keeps the immune sensors in check, preventing false alarms by stopping them from overreacting to our own RNA fragments.

This discovery is critically important as it provides a new explanation for the cause of some autoimmune diseases. The importance of this protective mechanism is demonstrated in people with genetic mutations that prevent the binding of the tagged RNA to TLR7 and TLR8. These patients' immune systems wrongly attack their own cells due to unchecked TLR7 and TLR8 activation, leading to chronic inflammation that drives autoimmunity.

The work outlined above has become the foundation of the Sofra technology platform, enabling the company to create leading-edge new drugs that mimic the tagged RNA and are intended to restore the balance to a misfiring immune system by using the same natural mechanisms that the body employs.

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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 registered, Australia based Nyrada Inc (ASX: NYR), a drug discovery and development company specialising in novel small molecule therapies.

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

Investor, Corporate & Media enquiries:

Julian Elliott

M: 0425 840 071

E: julian.elliott@noxopharm.com

Company Secretary:

David Franks

T: +61 2 8072 1400

E: David.Franks@automicgroup.com.au

Hudson Institute Media enquiries:

Rob Clancy

Communications & Media Manager

M: + 61 408 579 313

E: rob.clancy@hudson.org.au

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

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