# Noxopharm 2025 AGM Corporate Presentation

**Sydney, 18 November 2025:** Innovative biotech company **Noxopharm Limited (ASX:NOX)** is pleased to release its 2025 AGM Corporate Presentation.

Highlights:

- HERACLES clinical trial progress
- Numerous diseases linked to inflammation
- Market opportunities and catalysts
- SOF-SKN™ advantages in multi-billion dollar market
- Increasing third-party recognition
- External industry interest in Sofra assets
- First US patent granted
- Sofra and its role in cancer

**-ENDS-**

---

**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


**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


*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”

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.

# NOXOPHARM LIMITED

## Delivering Science. Transforming Lives.

## AGM 2025

# Disclaimer

This presentation has been prepared by Noxopharm Limited (NOX or the Company). It should not be considered as an offer or invitation to subscribe for, or purchase any shares in NOX, or as an inducement to purchase any shares in NOX. No agreement to subscribe for securities in NOX will be entered into on the basis of this presentation or any information, opinions or conclusions expressed in the course of this presentation.

This presentation is not a prospectus, product disclosure document, or other offering document under Australian law or under the law of any other jurisdiction.

It has been prepared for information purposes only and is for personal use only. This presentation contains general summary information and does not take into account the investment objectives, financial situation and particular needs of an individual investor. It is not financial product advice, and the Company is not licenced to, and does not provide, financial advice.

This presentation contains forward-looking statements which are identified by words such as 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of past and present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this presentation, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors many of which are beyond the control of the Company, its Directors and management.

Although the Company believes that the expectations reflected in the forward looking statements included in this presentation are reasonable, none of the Company, its Directors or officers can give, or gives, any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this document will actually occur or that the assumptions on which those statements are based are exhaustive or will prove to be correct beyond the date of its making. Readers are cautioned not to place undue reliance on these forward-looking statements. Except to the extent required by law, the Company has no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this presentation.

Readers should make their own independent assessment of the information and take their own independent professional advice in relation to the information and any proposed action to be taken on the basis of the information. To the maximum extent permitted by law, the Company and its professional advisors and their related bodies corporate, affiliates and each of their respective directors, officers, management, employees, advisers and agents and any other person involved in the preparation of this presentation disclaim all liability and responsibility (including without limitation and liability arising from fault or negligence) for any direct or indirect loss or damage which arise or be suffered through use of or reliance on anything contained in, or omitted from, this presentation. Neither the Company nor its advisors have any responsibility or obligation to update this presentation or inform the reader of any matter arising or coming to their notice after the date of this presentation document which affect any matter referred to in the presentation.

SOF-SKN™ and SOF-VAC™ are currently not approved for use in Australia or any other country.

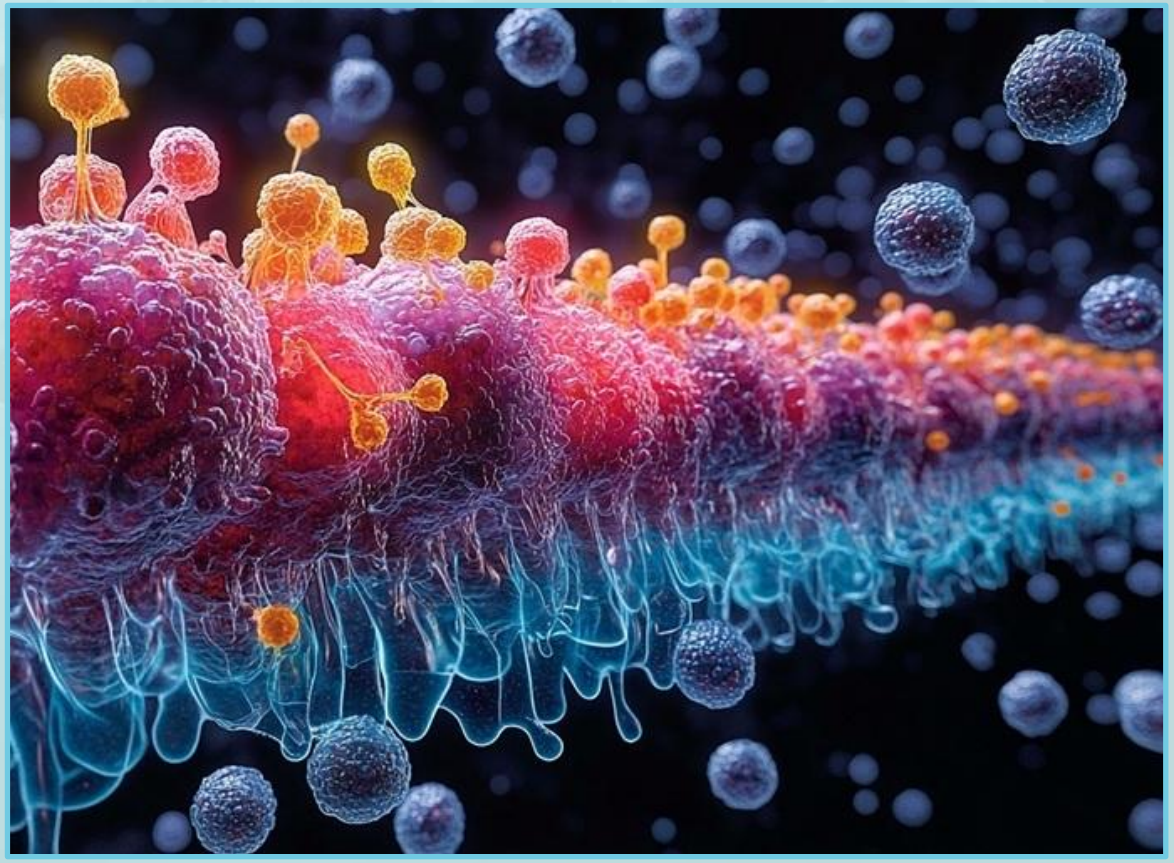
Noxopharm

# Dr Gisela Mautner, CEO & MD
# AGM Presentation

18 November 2025

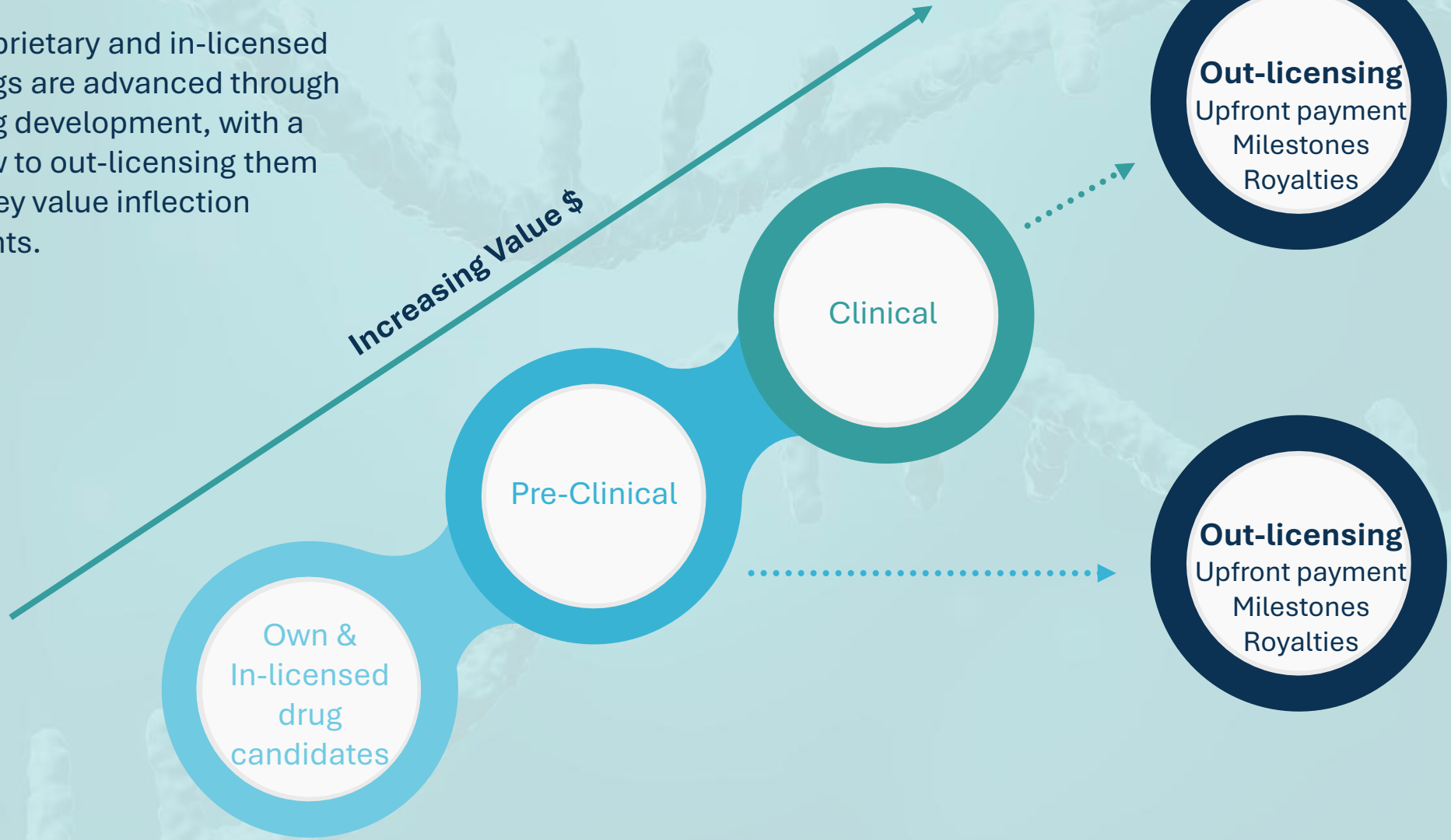
# A Milestone Year for Noxopharm

- HERACLES clinical trial started:
  - Positive safety results for Part 1
  - Part 2 now underway
- Growing external interest in Sofra™ platform:
  - Two MTA partners named with first results
  - More MTAs signed
  - Victorian ministerial visit
- Multiple high-potential assets / drugs
- World-class partners
- Robust IP portfolio – First US patent granted
- Significant commercial opportunities - US$163.2 billion autoimmune market



# The Noxopharm Business Model

Proprietary and in-licensed drugs are advanced through drug development, with a view to out-licensing them at key value inflection points.



# Financial Summary (ASX:NOX)

Extension of convertible notes announced September 2025 providing cash runway into mid-2026.

**Capital Structure***

| | |
|---|---|
| Share price | $0.092 |
| Shares on issue | 292M |
| Market Capitalisation | $26.9M |
| Net capital raised[1] | $63.8M |
| Govt grants/rebates received[2] | $32.0M |

**Cash Position****

| | |
|---|---|
| Current Cash Holdings | $935K |
| Expected R&D rebate for 2024/25 | $2.8M |

* As at 10 Nov 2025 ** As at 30 Sep 2025 [1] Includes IPO monies raised [2] Since IPO

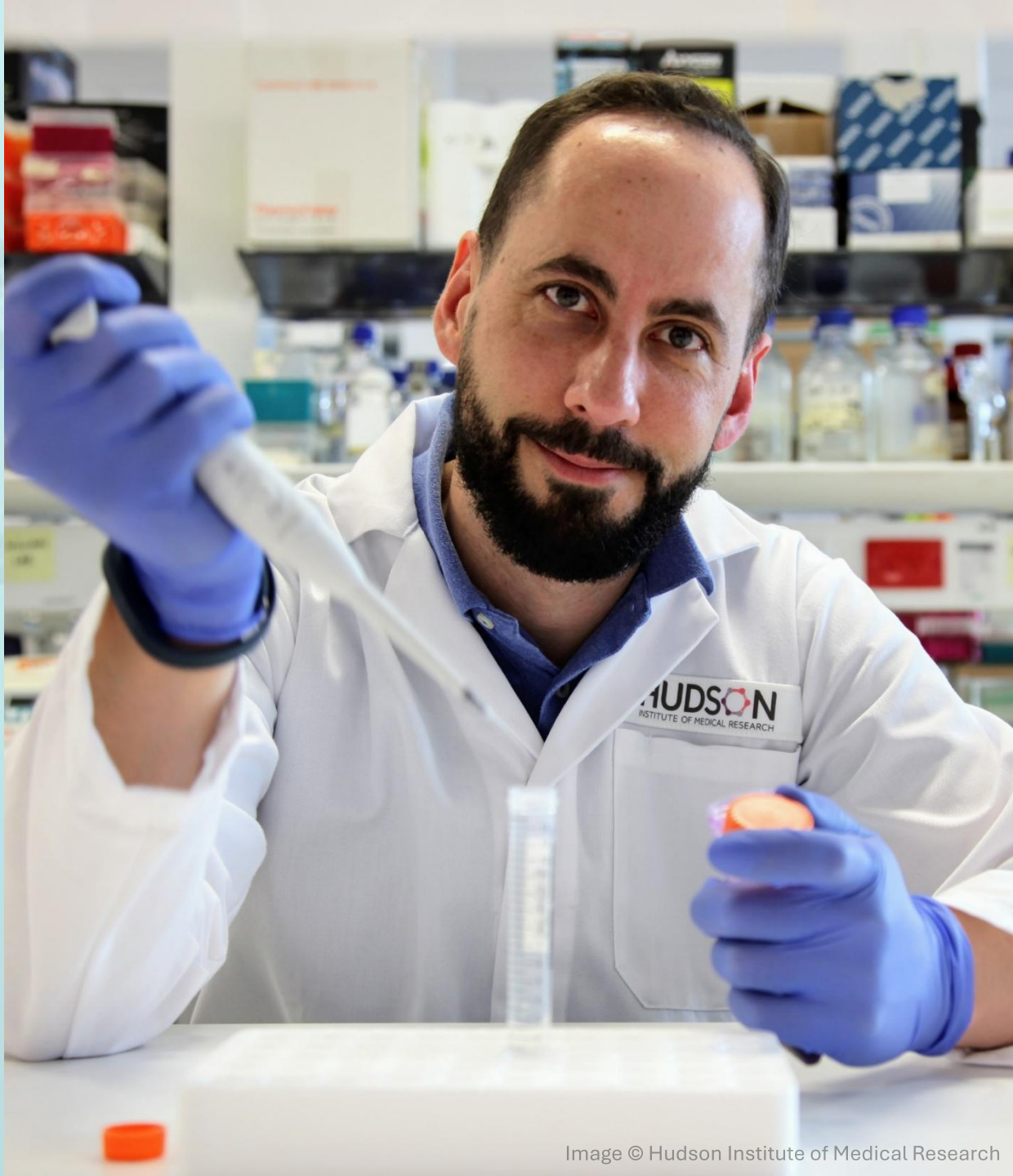

NOXOPHARM
Sofra™
A breakthrough discovery

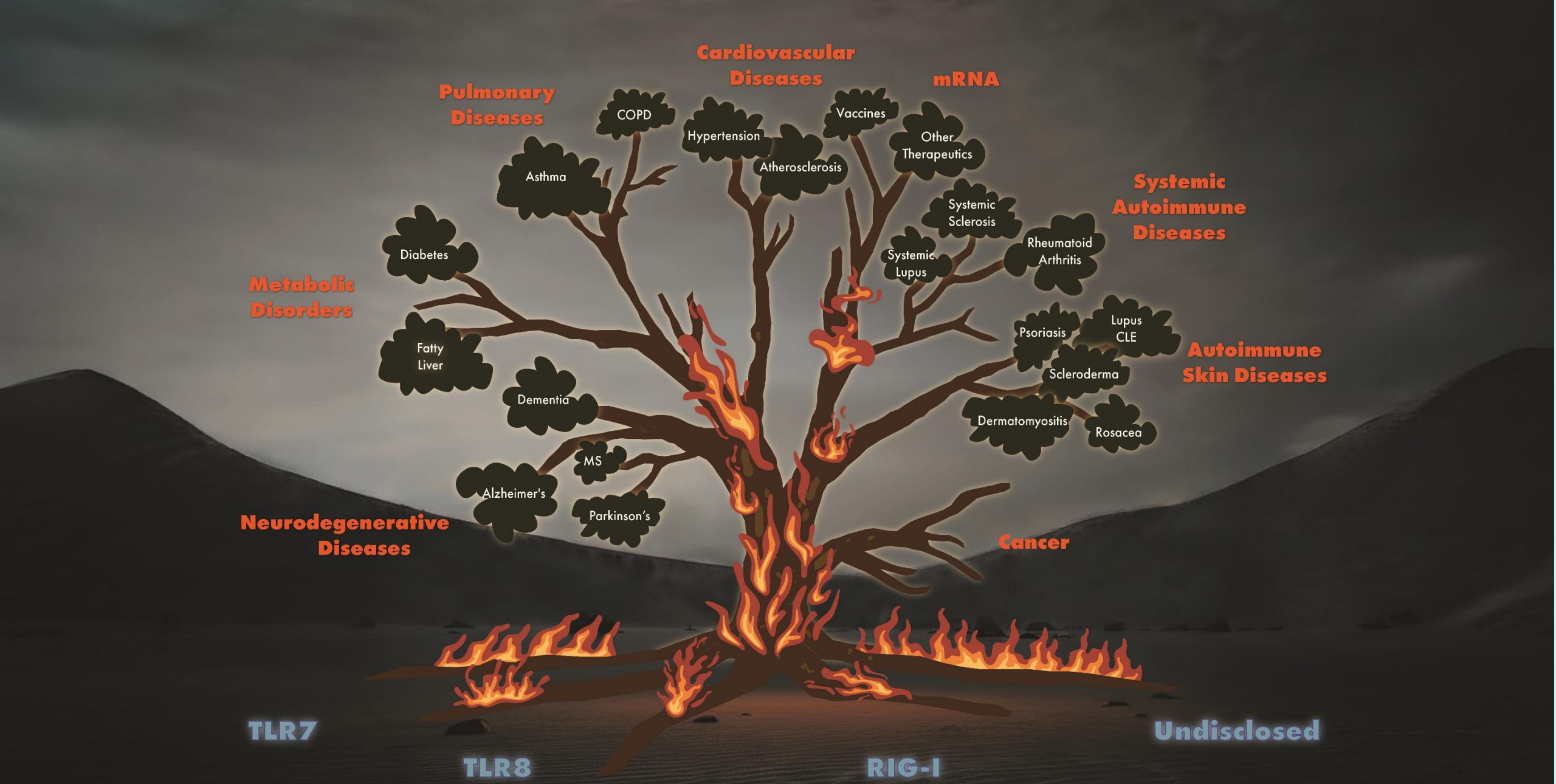
# Inflammation – a Global Killer

- Inflammation is central to many diseases.
- It causes untold harm to millions of people.
- Inflammatory diseases include **autoimmune diseases** such as rheumatoid arthritis, lupus and inflammatory bowel disease.
  - Autoimmune diseases are on the rise.
- Inflammation also occurs in **cardiovascular diseases** like atherosclerosis and high blood pressure, **respiratory diseases** like asthma, **neurodegenerative diseases** such as Alzheimer's and Parkinson's, **metabolic diseases** like diabetes, and **skin conditions** such as eczema, dermatitis and psoriasis.
- ***Any technology that can reduce the damage caused by inflammation has significant commercial potential.***

# A Breakthrough Discovery

- Noxopharm has a strategic partnership with Hudson Institute of Medical Research, a leading Australian medical research organisation.
- The collaboration is founded on a discovery made by Hudson's Associate Professor Michael Gantier, an **expert in nucleic acids biology**, and an international team of researchers.
- He uncovered why some people develop autoimmune diseases and others do not.
- This revealed how specific immune sensors like TLR7/8 are activated and deactivated.
- The discovery became the foundation of Noxopharm's **Sofra™ technology platform**.
- ***We can now create novel leading-edge drugs intended to restore the balance to a misfiring immune system.***






**Sofra drug candidates treat inflammatory diseases at the root by blocking overactivated immune sensors.**

# Sofra Technology Platform

- Sofra is based upon short nucleic acid sequences, the building blocks of DNA or RNA, known as oligonucleotides (short oligos).
- These oligos, which we have modified to act on specific immune sensors in a novel way, **reduce inflammation at its source**.
- They have a wide variety of applications, potentially creating more precise medicines that work better with fewer side effects.
- Intellectual property protected with PCT applications filed in all major jurisdictions.
- From its large Sofra library, Noxopharm has already developed:
  - **SOF-SKN™** – a drug candidate for autoimmune diseases affecting the skin.
  - **SOF-VAC™** – a portfolio of oligos designed to limit the inflammatory side effects associated with RNA therapeutics and vaccines.
- ***There are numerous assets / drugs that we are developing based on the Sofra platform to target various inflammatory diseases.***

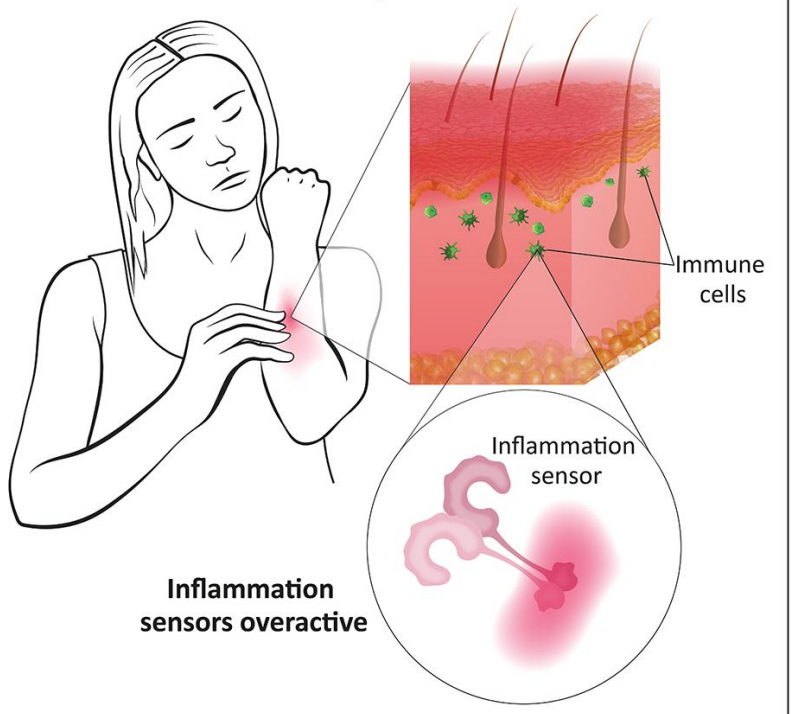
# SOF-SKN

## *A new way of treating autoimmune skin diseases*

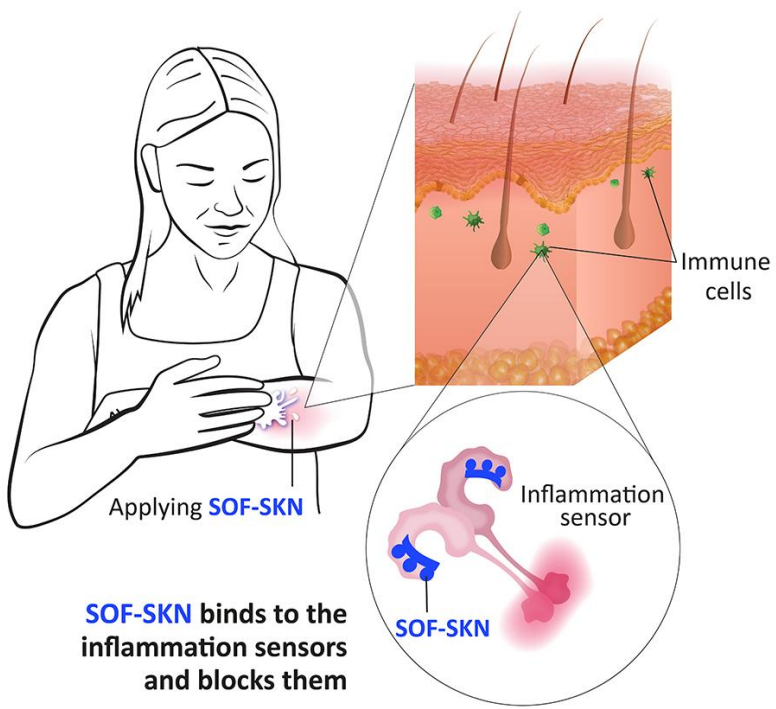
# SOF-SKN – A Novel Drug Candidate for Lupus

- Skin diseases are distressing to patients, especially when they visibly affect the face and limbs.
- Cutaneous lupus is a disease with **high unmet need**.
- **Current treatments are inadequate** – corticosteroids are commonly used but can have severe side effects.
- To help patients and capitalise on a market opportunity, we have developed an oligonucleotide-based topical skin medication known as SOF-SKN.
- **5 million people worldwide** have some form of lupus, with incidence and prevalence rates on the rise.
- ***Focusing on lupus is the first step to de-risking the technology and demonstrating its clinical potential. Larger markets will be targeted in the future.***

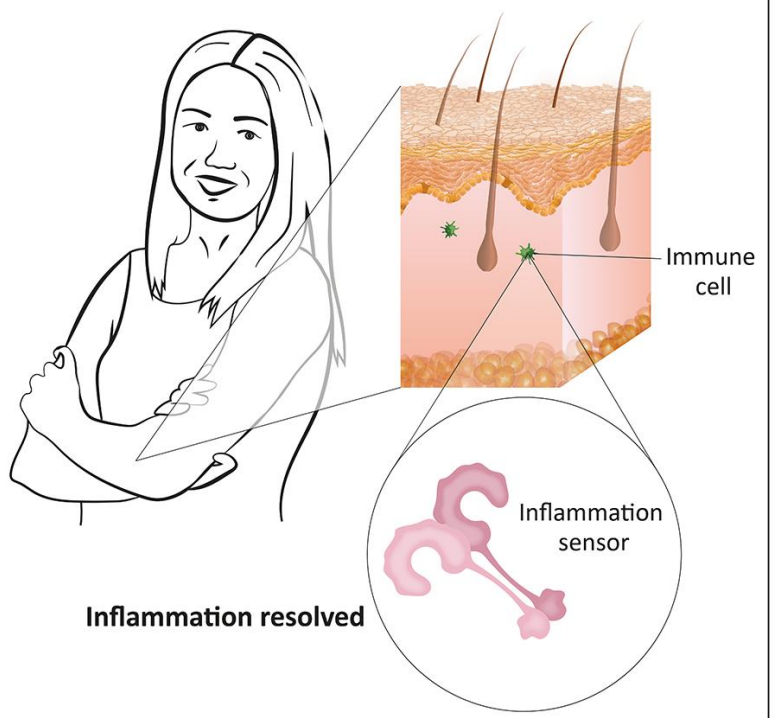
# SOF-SKN Mechanism of Action




In the skin, different types of immune cells contain inflammation sensors. In inflamed skin, these sensors are overactivated.

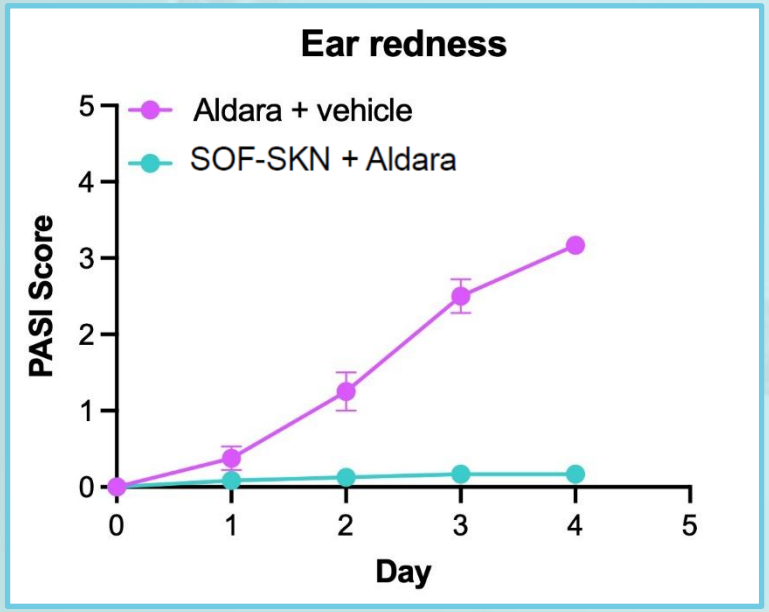



When **SOF-SKN** is applied, the inflammation sensors are blocked and the skin begins to improve.

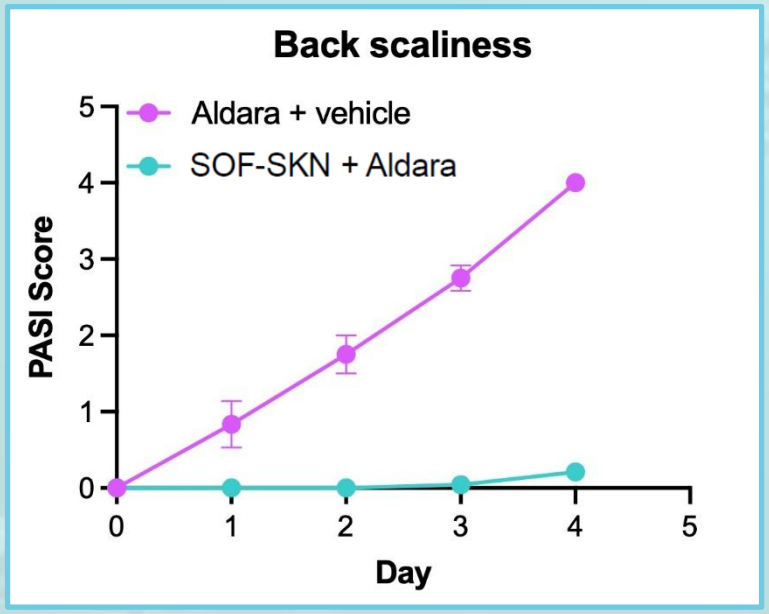


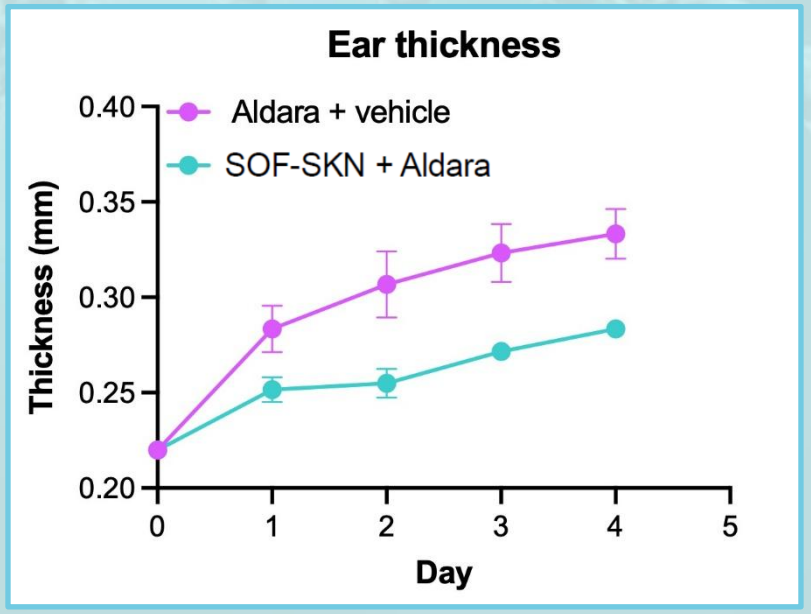

Inflammation is resolved and the skin returns to normal.

# SOF-SKN Reduces Skin Inflammation – *in vivo*








A well-established model of TLR7-driven skin inflammation was used in applying Aldara® cream containing 5% imiquimod (a TLR7 agonist) topically to the back and ear of mice.

SOF-SKN was also applied to the same areas.

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

***The inflammation parameters measured decreased significantly when SOF-SKN was applied.***

# HERACLES Clinical Trial

- First-in-human trial for SOF-SKN is now taking place.
- It aims to provide initial safety and pharmacokinetic data from healthy volunteers.
- HERACLES stands for ‘Harnessing Endogenous Regulators Against CLE Study’.
- It is being **conducted in Australia** to capitalise on local expertise in lupus research and early phase clinical trials.
- Ethics approval received in May 2025.
- **Trial activities started in June 2025.**
- Several doses and concentrations are being tested.
- Part 1 concluded with an excellent safety and tolerability profile of SOF-SKN.
- Part 2 is currently ongoing.
- ***Results are being announced in a timely manner.***

# Clinical Trials Process

Phase 0
Pharmacodynamics & Pharmacokinetics

Phase I
Dose-Ranging For Safety

Phase II
Efficacy & Placebo Control

Phase III
Safety & Efficacy Confirmation

Phase IV
Post-Marketing Surveillance

**Ongoing HERACLES trial**

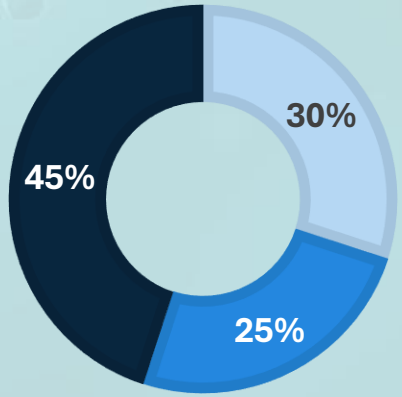
**Phase II enabling work and drug manufacture required**

# Total Addressable Market & Competitor Landscape

| Indication | Total Addressable Market (US$ Billion) | Competition |
|---|---|---|
| *Cutaneous lupus erythematosus (CLE)* | • **$3.38** (*2024*)<br>• **$10.53** (*2033*)<br>• *CAGR **13.46%*** | Only 2 drugs approved for only 1 subset of CLE:<br>**1. Kenalog-10** (corticosteroid)<br>**2. Plaquenil** (antimalarial) |

*For the treatment of CLE, use of generic, unspecific and systemic lupus drugs is common (corticosteroids, immune suppressing drugs, anti-histamines, others).*

**Market Share by Treatment Type**



# Why TLR7/8 Inhibition?

- Drugs that **directly target *innate* immune sensors** are a relatively recent development resulting from extensive scientific progress.
- Innate immune sensors are part of the body's first line of defence and initiate the immune response by triggering a cascade of complex immune reactions.
- Rather than trying to halt inflammation when the process has already progressed along multiple steps, SOF-SKN can stop it right at the beginning.
    - This marks a **significant shift in immunotherapy** beyond the *adaptive* immune system drugs that target T-cells, for example.
- Hudson Institute is at the **forefront of this science**.
- SOF-SKN is being developed as a **first-in-class drug**:
    - First TLR7/8 targeted topical treatment and oligonucleotide-based TLR7/8 antagonist.
- Major pharma companies are also exploring this exciting new field.

# Major Companies Exploring TLR7/8 Antagonism – An Attractive and Validated Target

*Several major companies see TLR 7/8 antagonism as an attractive market opportunity for systemic (SLE) and cutaneous (CLE) lupus.*

| Modality | Company | Compound* | Target | Route of Administration | Stage | Indication |
|---|---|---|---|---|---|---|
| Small Molecule | Merck | M5049 (Enpatoran) | TLR7/8 antagonist | Oral | Phase 2 | SLE/CLE<br>COVID-19 pneumonia<br>dermatomyositis and polymyositis |
| Small Molecule | BMS | BMS-986256 (Afimetoran) | TLR7/8 antagonist | Oral | Phase 2 | SLE/CLE |
| Small Molecule | Novartis | MHV370 | TLR7/8 antagonist | Oral | Phase 1 | Undisclosed |
| Antibody | Daiichi Sankyo | DS-7011a | TLR7 antagonist | IV/SC (IV for Phase 2) | Phase 2 | SLE/CLE |

# SOF-SKN Advantages

- **Fast relief** – SOF-SKN is directly applied to the skin lesions where the immune cells that express TLR7/8 immune sensors are overactivated.
    - It therefore **reaches the source of the inflammation** directly without having to pass through the stomach or circulatory system.
- **Patient compliance** – Topical applications are, in general, **preferred by patients** for skin diseases.
- **Ease of treatment** – Cream can be applied to individual lesions and the dose adjusted easily, with no exposure of drug to whole body.
- **Reduced risk of immunosuppression** – Avoids systemic TLR7/8 inhibition.
- **Versatility** – Potential for treatment of flare-ups as well as ongoing disease management.
- **Targeted** – SOF-SKN has the potential to mitigate off-target effects and associated side effects.

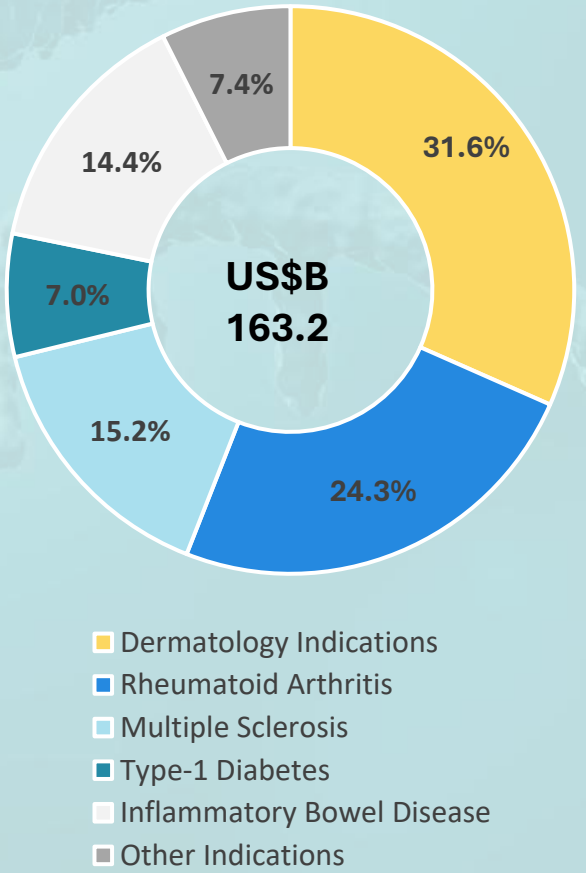
# Global Autoimmune Disease Therapeutics Market

## *Market Overview*

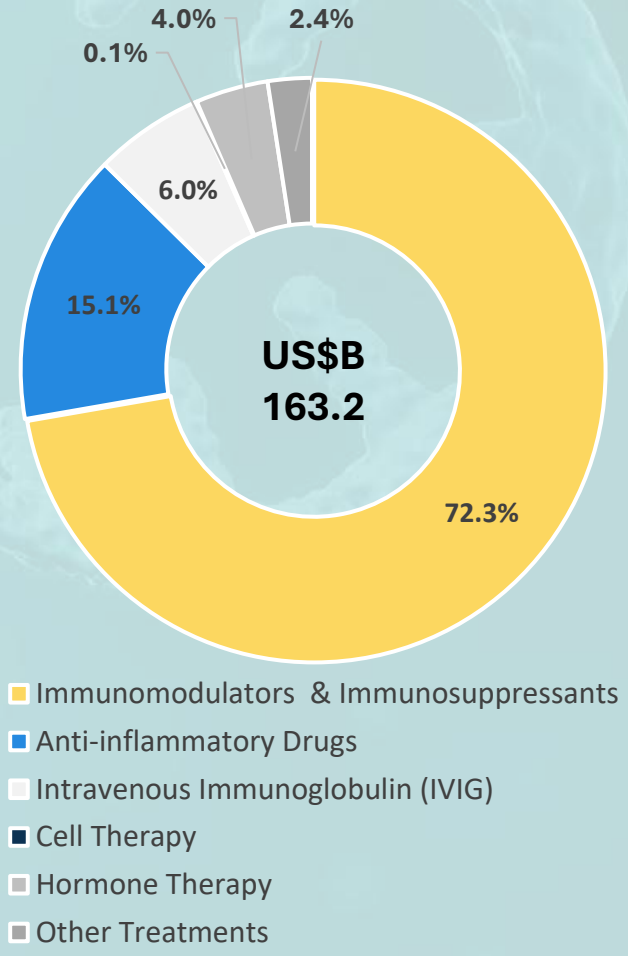
- **Global autoimmune disease therapeutics market size – US$ 163.2 billion** (2024):
  - **CAGR of 3%** (2024–2034).
  - Projected revenue of **US$ 219.6 billion** (2034).
- **Dermatology indications** – market share of **31.6%** in 2024 and CAGR of **2.8%.**
- **Immunomodulators** and immunosuppressants – highest market share of **72.3%** (2024).
- **North America** – market share of **33.3%** (2024) in the global autoimmune disease therapeutics market; **11.4% S Asia and Pacific.**

Global Autoimmune Disease Therapeutics Market Value Share

*By Indications (2024)*




*By Treatment (2024)*






Source: FMI Analysis, 2024

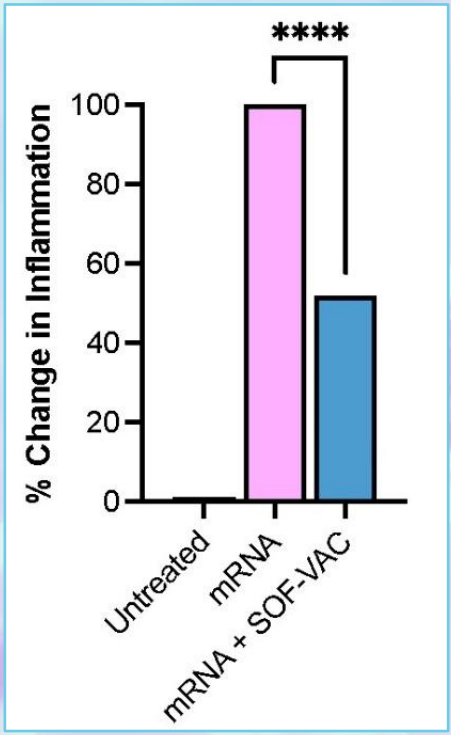
# Ministerial Visit to Hudson Institute


Victorian Minister for Finance, Economic Growth and Jobs Danny Pearson holding a tube of SOF-SKN.

# SOF-VAC

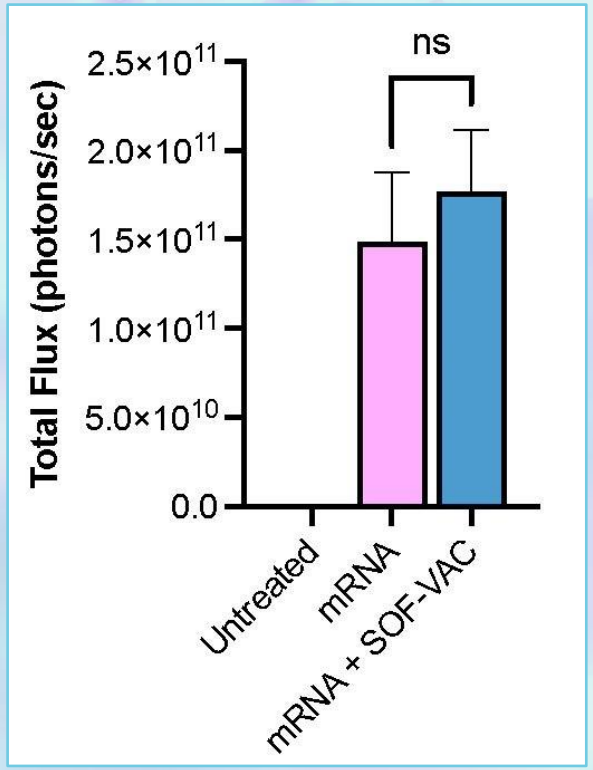
***An asset portfolio attracting commercial interest***

# SOF-VAC Reduces Inflammation




- In an animal study, inflammation was reduced by around 50% when comparing the inflammation induced by mRNA alone to mRNA plus SOF-VAC.
- This is an important finding, as many side effects of mRNA vaccines are due to inflammation.

Compounded average percentage showing highly significant decrease in levels of nine inflammatory cytokines ($p<0.001$) detected in the blood of mice six hours post-injection with mRNA alone or mRNA co-packaged with SOF-VAC.




- Since mRNA expression is directly correlated with vaccine activity, i.e. the immunity induced by vaccination, it was critical to show that SOF-VAC did not reduce mRNA translation.

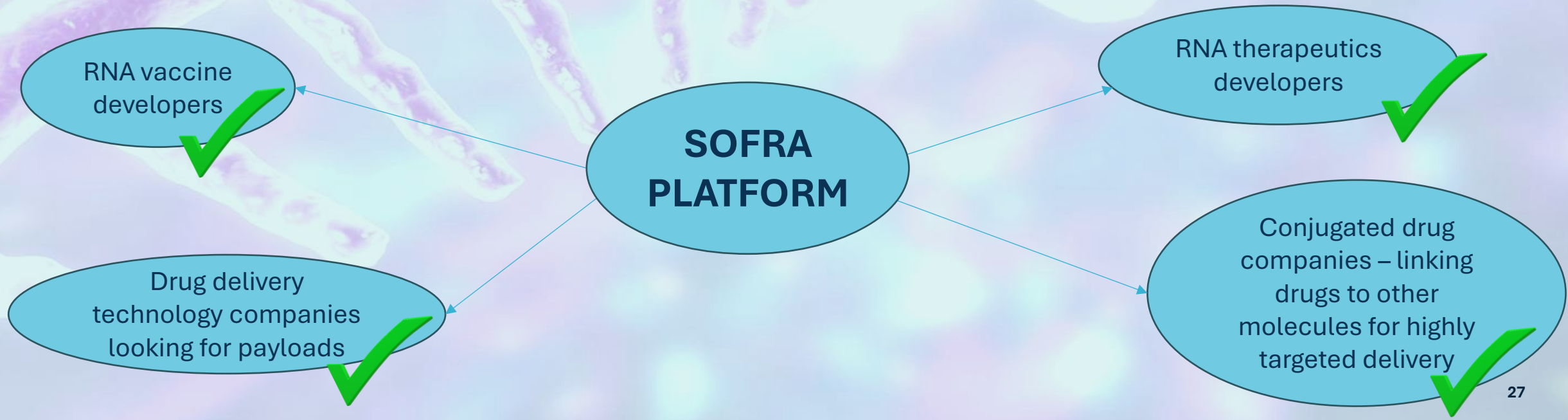
Measurement of mRNA expression (bioluminescence) in mice six hours post-injection with luciferase mRNA alone or mRNA co-packaged with SOF-VAC showed no significant difference.

# SOF-VAC Commercialisation

- Noxopharm has developed an **extensive portfolio of assets** under the SOF-VAC program.
- These include an array of oligos targeting various nucleic acid (RNA / DNA) inflammation sensors such as TLR7, TLR8, RIG-I and cGAS.
- The program is also being extended to modulate other critical sensors, with promising leads for targets such as MDA5, TLR3 and TLR9.
- **A range of mid-size to multibillion-dollar companies are now evaluating these assets**.
- Success stories: Collaborations with BioRay and Tezcat:
  - Promising Sofra results from overseas company.pdf
  - US company demonstrates strong Sofra potential.pdf
- Most company names remain confidential in a highly competitive market.
- ***Noxopharm is actively pursuing further third-party collaborations.***

# Potential Partners – Signed MTAs

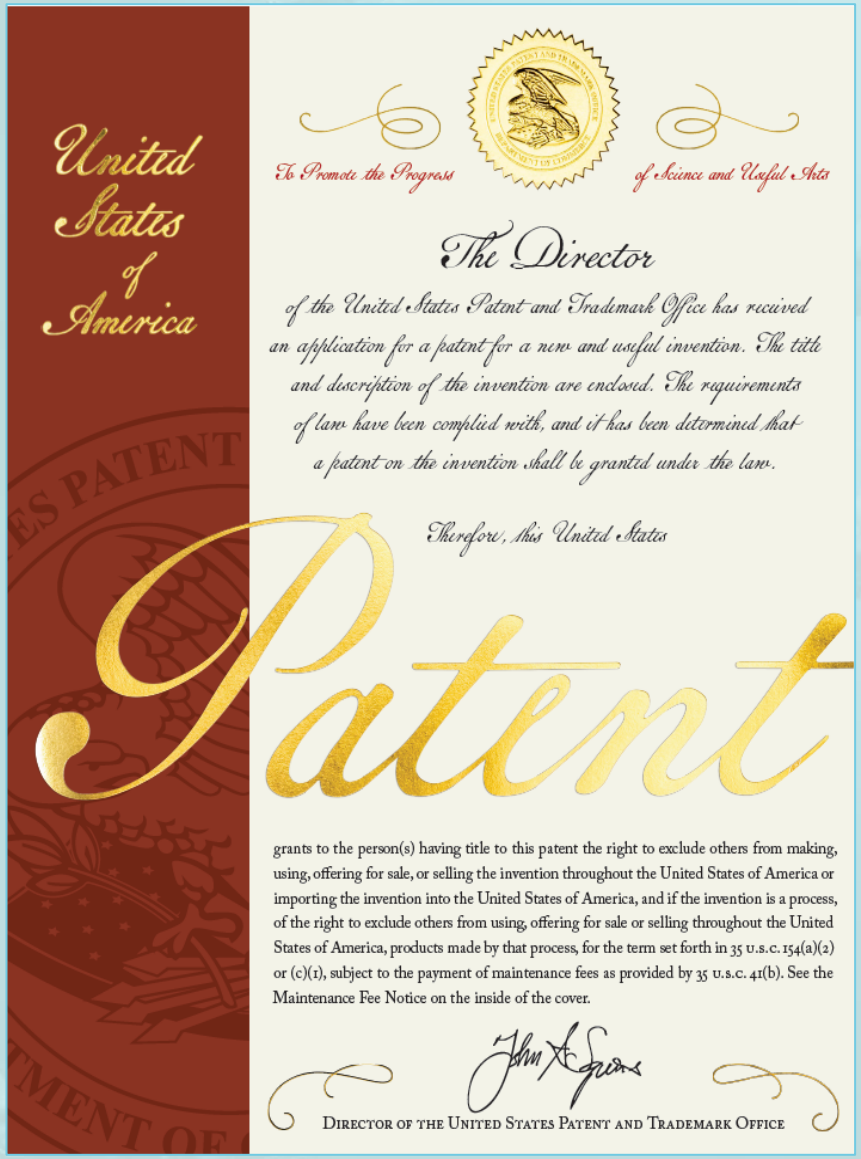
- Several Material Transfer Agreements (MTAs) signed over the past year.
  - An MTA governs the transfer of materials between two parties, defining the terms of the arrangements, materials being shared and type of experiments performed.
  - BioRay and Tezcat MTAs previously announced.
- **An MTA is an essential step along the path to commercialisation of preclinical assets.**
- Each company is investing its own time and resources to perform the studies.
- A variety of use cases are being explored.



# Cancer Opportunity

- Inflammation – or rather the absence of it – plays a recognised role in cancer.
- Noxopharm has developed drug candidates that can help **stimulate the immune system** as it battles cancer.
- Sofra could therefore attract interest in the sizeable **global immuno-oncology market**, which was worth **US$69.8 billion** in 2025.
- Decision to fast-track research program for 2025.
- **Lead candidate already identified**, currently being optimised.
- Patent protection now secured for this concept – first patent from Sofra portfolio.
- ***This expansion into cancer further broadens the Sofra pipeline and opens up intriguing market opportunities.***

# First US Sofra Patent Granted



United States of America

To Promote the Progress of Science and Useful Arts

The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

US012448622B2

(12) **United States Patent**
**Gantier**

(10) **Patent No.: US 12,448,622 B2**
(45) **Date of Patent: Oct. 21, 2025**

(54) **OLIGONUCLEOTIDES**


(71) Applicant: **HUDSON INSTITUTE OF MEDICAL RESEARCH**, Clayton (AU)

(72) Inventor: **Michael Gantier**, McKinnon (AU)

(73) Assignee: **Hudson Institute of Medical Research**, Clayton (AU)



( * ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **18/213,116**

(22) **Filed: Jun. 22, 2023**

(65) **Prior Publication Data**

US 2024/0287510 A1 Aug. 29, 2024

**Related U.S. Application Data**

(63) Continuation of application No. 17/926,383, filed as application No. PCT/AU2021/050469 on May 19, 2021.

(30) **Foreign Application Priority Data**

May 19, 2020 (AU) ..... 2020901606

(51) **Int. Cl.**
***C12N 15/113*** (2010.01)
***A61K 45/06*** (2006.01)
***C12N 15/11*** (2006.01)

(52) **U.S. Cl.**
CPC ..... ***C12N 15/113*** (2013.01); ***A61K 45/06*** (2013.01); ***C12N 15/111*** (2013.01); *C12N 2310/11* (2013.01); *C12N 2310/315* (2013.01); *C12N 2310/321* (2013.01); *C12N 2310/3231* (2013.01); *C12N 2310/341* (2013.01); *C12N 2310/344* (2013.01); *C12N 2320/53* (2013.01)

(58) **Field of Classification Search**
CPC . C12N 15/113; C12N 15/111; C12N 2310/11; C12N 2310/315; C12N 2310/321; C12N 2310/3231; C12N 2310/341; C12N 2310/344; C12N 2320/53; A61K 45/06
See application file for complete search history.


(56) **References Cited**


2018/0273576 A1 9/2018 Hogrefe et al.
2019/0144490 A1 5/2019 Hogrefe et al.
2019/0270766 A1 9/2019 Hogrefe et al.

FOREIGN PATENT DOCUMENTS

WO 03/86280 A2 10/2003
WO 2006/063252 A2 6/2006
WO WO 2007/031319 3/2007
WO 2008/019486 A1 2/2008
WO WO-2009060281 A2 * 5/2009 ..... A61K 31/7088
WO 2018/184003 A1 10/2018
WO 2021/232099 A1 11/2021

OTHER PUBLICATIONS

Kandimalla, E.R. et al. "Mixed backbone antisense oligonucleotides: design, biochemical and biological properties of oligonucleotides containing 2'-5'-ribo- and 3'-5'-deoxyribonucleotide segments". Nucleic Acid Research, vol. 25 , No. 2 (1997), pp. 370-378 (Year: 1997).*

Gorden, K.K.B. et al. "Oligodeoxynucleotides differentially modulate activation of TLR7 and TLR8 by imidazoquinolines".The Journal of Immunology, vol. 177, No. 11 (2006), pp. 8164-8170 (Year: 2006).*

Diebold, S.S. et al. "Nucleic acid agonists for Toll-like receptor 7 are defined by the presence of uridine ribonucleotides". European Journal of Immunology, vol. 36 (2006), pp. 3256-3267. (Year: 2006).*

Diebold, S.S. et al. "Nucleic acid agonists for Toll-like receptor 7 are defined by the presence of uridine ribonucleotides". European Journal of Immunology, vol. 36 (2006), pp. 3256-3267—Supporting Information—Supplemental Data Pdf. (Year: 2006).*

Sharaf, M.L. "Exploring the immunogenicity and therapeutic applications of boranophosphate-modified RNA:siRNA and RNA Aptamers." Department of Chemistry in the Graduate School of Duke University (2011). UMI No. 3453181. (Year: 2011).*

Bernard, M.A. et al. Novel HIV-1 MiRNAs Stimulate TNFa Release in Human Macrophages via TLR8 Signaling Pathway. PLOS One, vol. 9 (2014), p: e106006. (Year: 2014).*

Agrawal et al., "Mixed-backbone oligonucleotides as second generation antisense oligonucleotides: In vitro and in vivo studies", Proc. Natl. Acad. Sci. USA, vol. 94:2620-2625.

Goodchild et al., "Sequence determinants of innate immune activation by short interfering RNAs", BMC Immunology, 10:40, 2009.

Gorden, "Oligodeoxynucleotides differentially modulate activation of TLR7 and TLR8 by imidazoquinolines", J. Immunol. vol. 177:8164-1870, 2006.

Jurk et al., "Modulating responsiveness of human TLR7 and * to small molecule ligands with T-rich phosphorothiate oligodeoxynucleotides", Eur. J. Immunol. vol. 36:1815-1826, 2006.

(Continued)



*Primary Examiner* — Neil P Hammell
*Assistant Examiner* — Alexandra Geraldine Dace Denito
(74) *Attorney, Agent, or Firm* — MARSHALL, GERSTEIN & BORUN LLP

# Catalysts – Increasing Value with every Step

**Near term - 2H25 - 1H26**

- HERACLES Part 1 results – single dose in humans
- HERACLES Part 2 results – multiple doses in humans
- Regulatory required human SOF-SKN data for next trial
- New MTAs and follow-on MTAs (first step for potential commercial deal)
- New IND-enabling preclinical data
- First tier-one patent granted
- High-impact journal publication of Sofra discovery
- New cancer data from pipeline (lead optimisation)

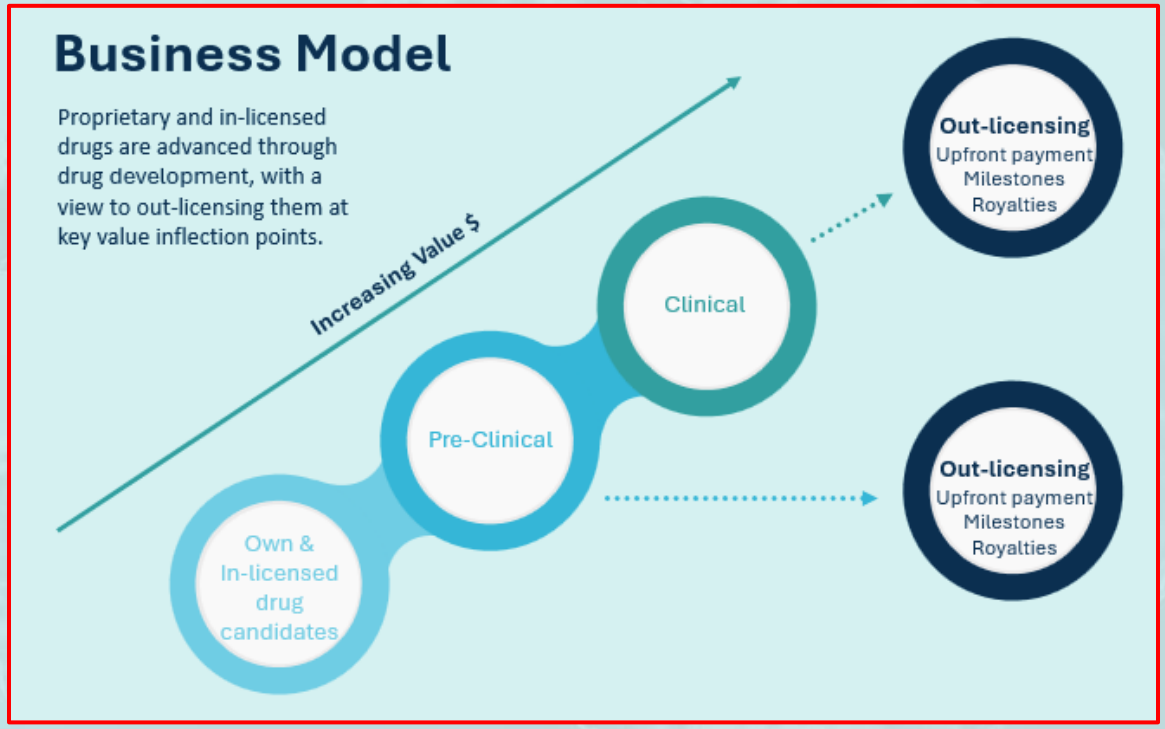
**Medium term – 2H26-2H27**

- Next stage clinical trial for SOF-SKN efficacy data
- Pre-meeting with US FDA for Investigational New Drug application
- Cancer-related external collaborations

**Long term – From 1H28**

- First exit event – out-licensing of SOF-SKN to pharma
- Several assets in clinical trials
- Rich pipeline to support ongoing growth and value creation

*Above is subject to change.*




***Strategy to develop and sell de-risked assets when attractive to other companies.***

***No intention to self-fund expensive and lengthy Phase III trials and regulatory drug approval processes.***

Noxopharm

# Questions