Noxopharm 2023 AGM Corporate Presentation

Sydney, 16 November 2023: Innovative biotech company **Noxopharm Limited (ASX:NOX)** is pleased to release its 2023 AGM Corporate Presentation.

Highlights:

- Strategic transformation
- Two proprietary technology platforms with multiple assets
- Encouraging preclinical results
- Recent pancreatic cancer drug data
- SOF-VAC™ recent data and strategy
- SOF-SKN recent data and strategy
- World-class partners
- Market opportunities

-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

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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” 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.

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Delivering Science. Transforming Lives.

AGM 2023

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Veyonda® currently is not approved for use in Australia or any other country.

Noxopharm

Dr Gisela Mautner, CEO & MD

AGM 16 November 2023

Transforming Noxopharm

- **Noxopharm – transforming to build shareholder value:**
  - New strategic direction
  - Two proprietary technology platforms
  - Multiple high-potential assets
  - Encouraging results
  - World-class partners
  - Robust IP portfolio
  - Experienced management team
  - Significant market opportunities

Past 12 Months – Review

Corporate

- Strategic decision to focus on two promising platforms
- Resources directed towards principal objectives
- Careful management of cash

Chroma™

- Positive pancreatic cancer drug data in preclinical models
- Ongoing refinement and development
- Deepening partnerships with UNSW Sydney and University of South Australia

Sofra™

- Positive results from SOF-VAC™ studies
- SOF-VAC commercialisation strategy
- New patent application filed
- Encouraging SOF-SKN™ results
- SOF-SKN development plan

IONIC Trial Update

- IONIC is a pilot Phase 1 trial exploring the safety and efficacy signals of Veyonda® combined with the Bristol Myers Squibb checkpoint inhibitor Opdivo® (nivolumab) for the treatment of a range of solid tumour types.
- Professor De Souza and investigators are responsible for the conduct of the study, including:
  - Screening and recruitment of patients
  - Administering of doses
  - Decisions regarding patient cohorts and dose escalations
  - Data evaluation and publication
- IONIC supported with Veyonda product from existing supplies
- Challenging recruitment
- Noxopharm monitoring trial, expects more data read-outs in 2024

Financial Summary (ASX:NOX)

Capital Structure*

Share price	$0.135
Shares on issue	292M
Market Capitalisation	$39.5M
Net capital raised[1]	$63.8M
Govt grants/rebates received[2]	$29.6M

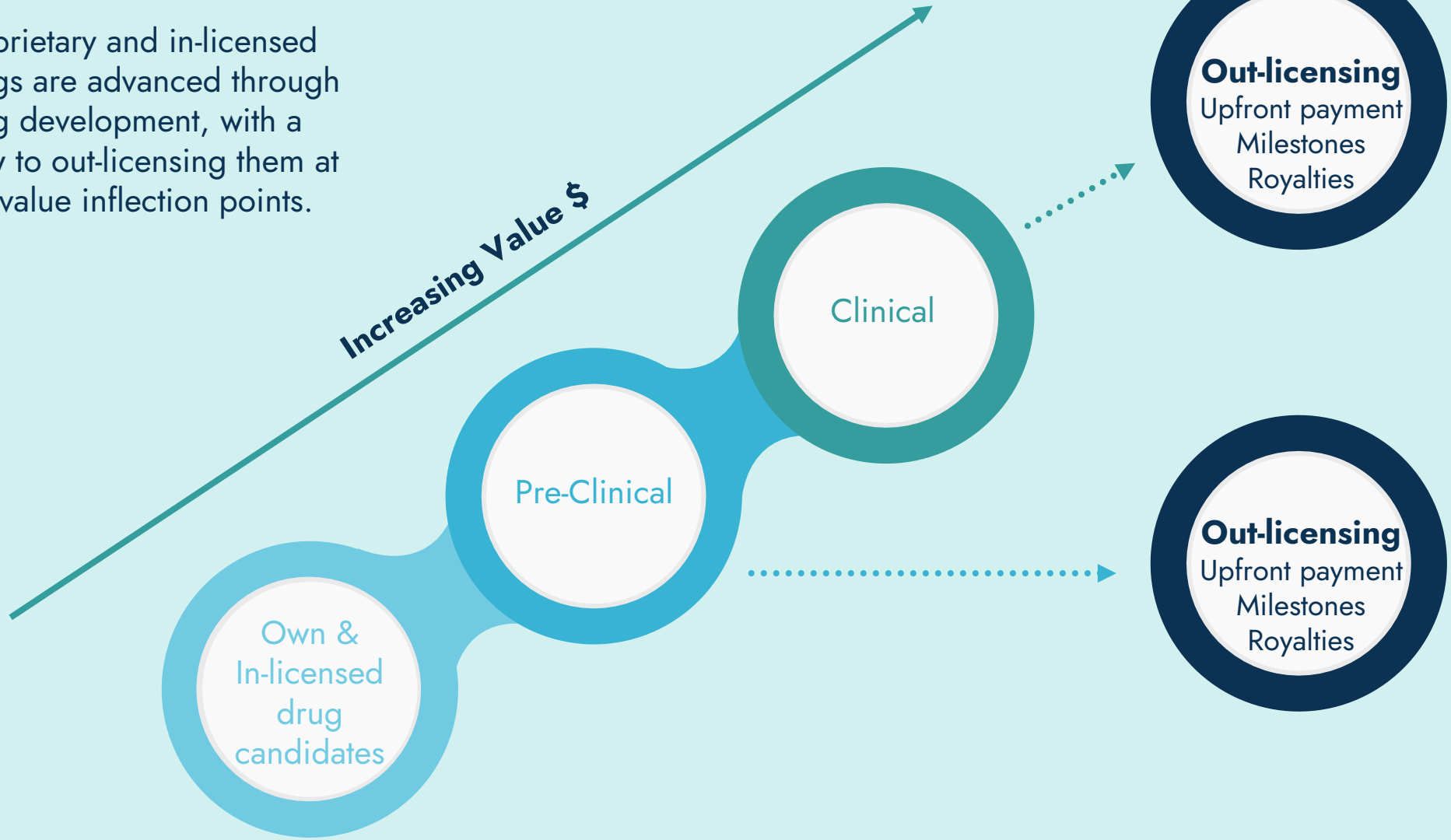
Cash Position**

Current Cash Holdings	$7.9M
R&D rebate received for 2022/23	$6.1M

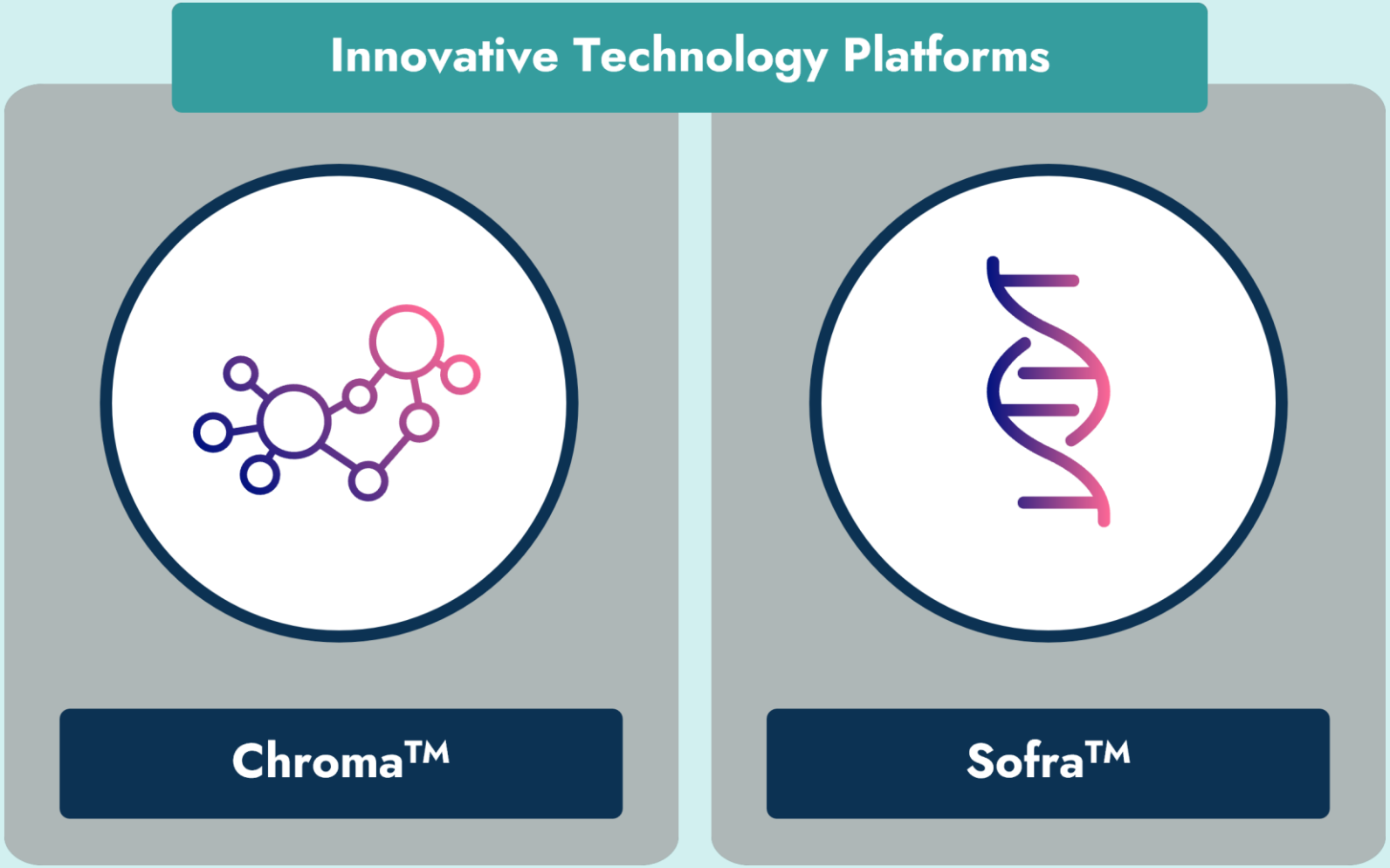
* As at 14 Nov 2023 ** As at 16 Nov 2023 [1] Includes IPO monies raised [2] Since IPO

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.



Two Separate Preclinical Development Programs



Preclinical Platforms – Key Characteristics

- The Chroma and Sofra technology platforms share key attributes that are important value drivers:
  - **Uniqueness**
    - New and proprietary drug candidates from both platforms
    - Protected by robust Intellectual Property strategy
  - **World-class partnerships**
    - Hudson Institute of Medical Research
    - UNSW Sydney
  - **Broad applicability**
    - Chroma
      - Pancreatic cancer
      - Other cancer types
    - Sofra
      - Safety of mRNA technology
      - Autoimmune & inflammatory diseases

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Chroma™

Cancer

Inflammation

CHROMA™ TECH PLATFORM

Pancreatic Cancer

TBK1/ Inflammation

Brain Cancer

Other Cancers

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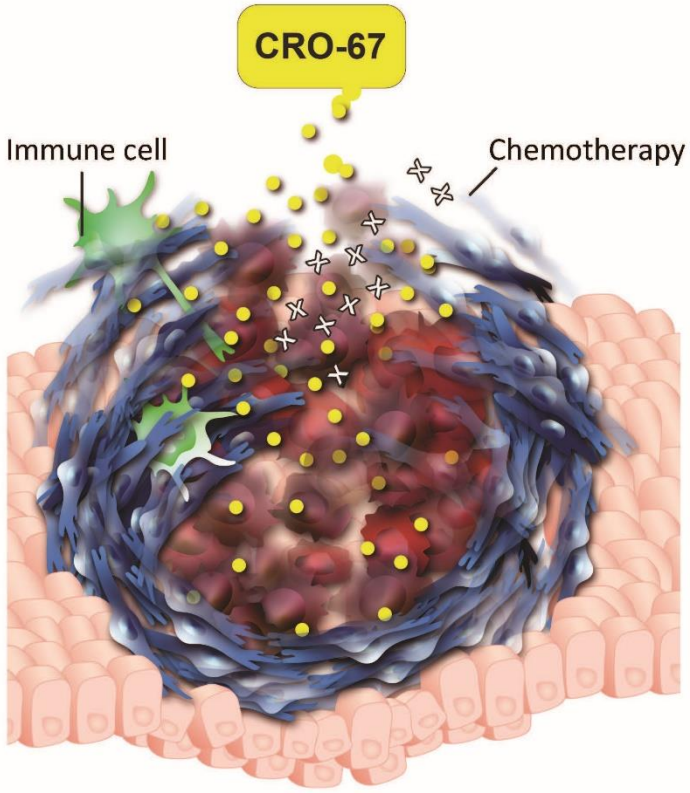
Pancreatic Cancer Dual-Cell Therapy

- Preclinical research in unique pancreatic cancer UNSW model.
- CRO-67 tested in patient-derived explants.
- CRO-67 attacks both pancreatic tumour cells **and** barrier cells surrounding the tumour.
- Reducing the barrier exposes tumour to immune cells and to further anti-cancer treatments.
- 2022 results were highly statistically significant:
  - The number of tumour cells decreased by 85% ($p < 0.0002$)
  - The number of barrier cells decreased by 87% ($p < 0.0001$)
  - Tumour cell multiplication decreased by 73% ($p < 0.0001$)
  - Overall cell death increased by 6.2-fold ($p < 0.0001$)

Statistical significance $p < 0.05$



CRO-67 dual-cell activity breaks down pancreatic cancer CAF-cell barrier and kills tumour cells, while also opening the way for immune cells and additional chemotherapy in a pre-clinical model

Latest Data – Significantly Reduced Tumour Volume and Slower Growth

- *In vivo* research results presented at the American Association of Cancer Research (AACR) Special Conference on Pancreatic Cancer in September 2023.
- Human pancreatic cancer tumour cells implanted under the skin into mice.
- Treatment with CRO-67 for 21 days.
- CRO-67 significantly reduced tumour volume *in vivo* by an average of 56.7% versus the untreated controls (p=0.0013).
- CRO-67 slowed down the rate at which the tumours grew by 48%.
- Doubling time for tumours treated with CRO-67 was slowed down with 8.5 days, versus 4.4 days for untreated controls.
- Results demonstrate that CRO-67 has now been shown to be bioavailable and biologically active in an animal model.

Orphan Drug Designation

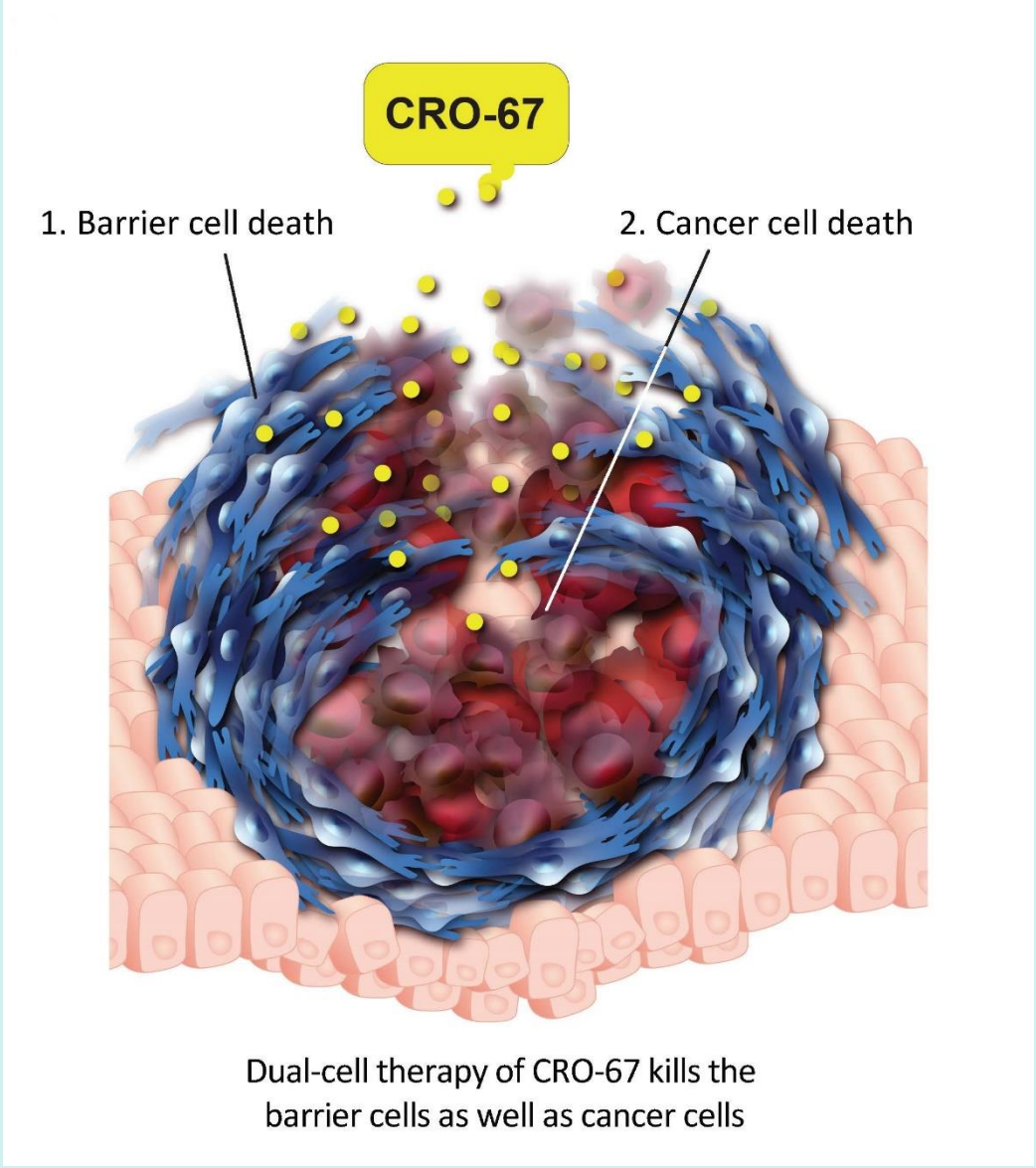
- Granted by US Food and Drug Administration in October 2023.

- ODDs given for drugs designed to prevent, diagnose or treat rare diseases or conditions.

- Designation comes with various benefits that include:
  - Tax credits for qualified clinical trials
  - Exemption from user fees (e.g. FDA application fees)
  - Potential seven years of market exclusivity after approval

CRO-67 – Next Steps

- High priority project
- Further *in vivo* studies currently underway
- Mechanism of action
- Dosing
- Formulation



Dual-cell therapy of CRO-67 kills the barrier cells as well as cancer cells

Noxopharm

Sofra™

Sofra

- Noxopharm has in-licensed a technology from Hudson Institute of Medical Research to create the Sofra technology platform, which is housed in Noxopharm's subsidiary Pharmorage.
- This technology platform is based upon short nucleic acid sequences, the building blocks of DNA or RNA, known as oligonucleotides.
- These oligonucleotides provide a novel treatment approach, acting on specific cells to modulate inflammation at its source.
- They have potential applications in the treatment of excessive inflammatory responses like those sometimes seen after viral or bacterial infections and in autoimmune diseases.
- Noxopharm has developed two assets:
  - SOF-VAC™ – a vaccine enhancer which limits the inflammatory side effects associated with mRNA vaccines and therapeutics.
  - SOF-SKN™ – a drug candidate for autoimmune diseases affecting the skin.

Stimulate Inflammatory Response

Reduce Inflammation

SOFRA™ TECH PLATFORM

Oligonucleotides targeting inflammatory sensors

Infectious Inflammatory Diseases

Cancer

mRNA

- Vaccines
- Other therapeutics

Neurodegenerative Diseases

- Parkinson's
- Alzheimer's
- Huntington's
- Multiple Sclerosis

Pulmonary Diseases

- Asthma
- COPD
- Bronchitis
- Hay fever

Autoimmune Diseases

- Lupus
- Psoriasis
- Type 1 diabetes
- Rheumatoid arthritis
- Inflammatory bowel disease
- Multiple Sclerosis

Cardiovascular Diseases

- Hypertension
- Atherosclerosis
- Stroke

Metabolic Disorders

- Type 2 diabetes
- Fatty liver disease

Genetic Inflammatory Diseases

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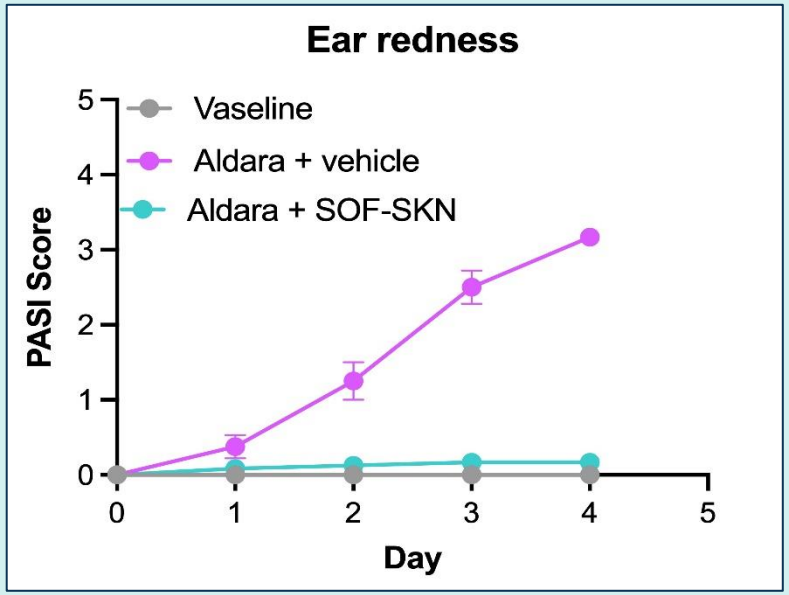
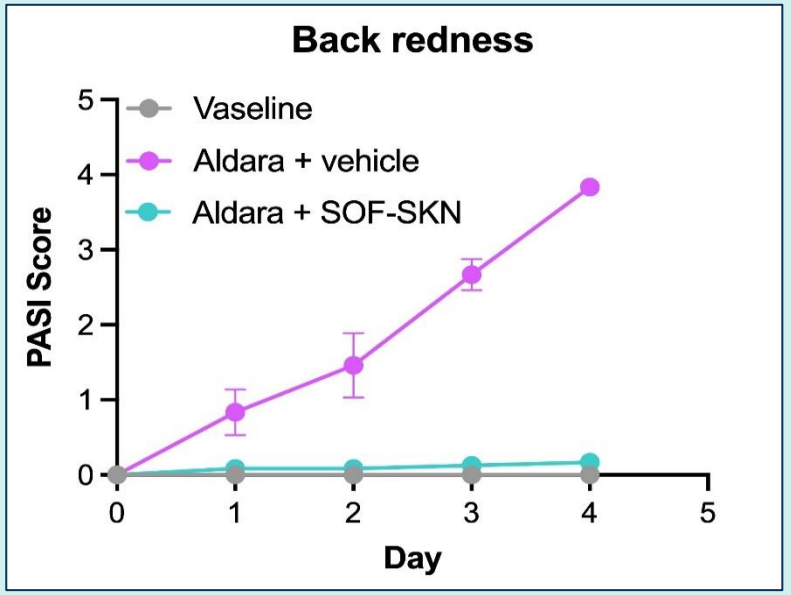
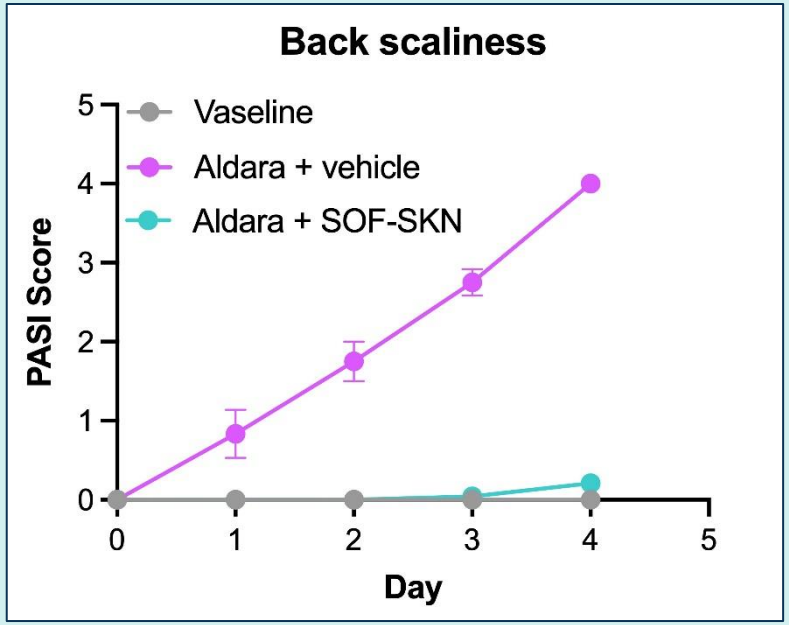
SOF-SKN™ – Overview

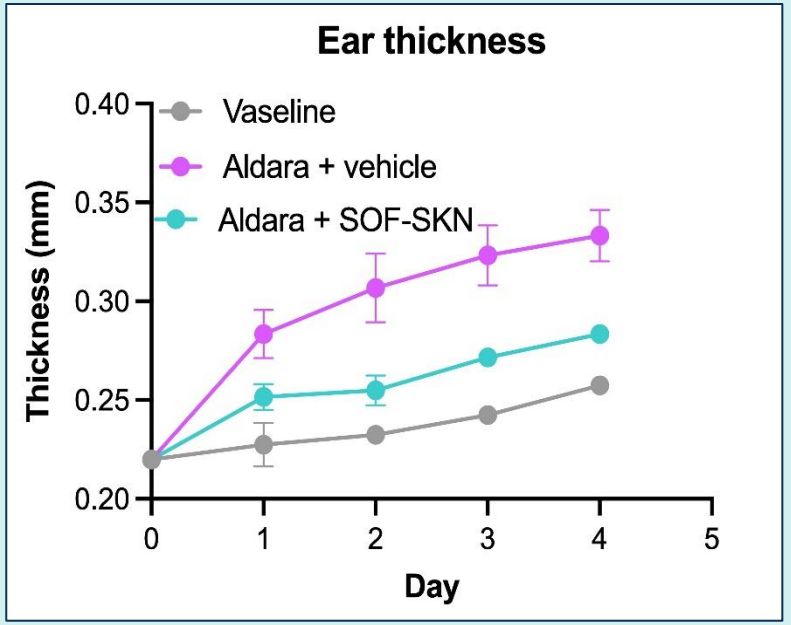
- Noxopharm is developing an oligonucleotide-based skin medication.
- Previously known as SOF-XX, now termed SOF-SKN.
- The oligonucleotides act to reduce inflammation at its source.
- Potential application in autoimmune diseases like lupus and psoriasis.
- When applied topically to mice (on the skin), SOF-SKN only exerts its anti-inflammatory activity within the local environment of the skin.
- Topical medications may have a shorter and less complex development path through clinical trials.

SOF-SKN Reduces Skin Inflammation in Mouse Model









SOF-SKN – Next Steps

- Science-driven strategy – accelerate SOF-SKN project as rapidly as possible.
- Market opportunity – potential novel treatment for inflammatory skin diseases like lupus and / or psoriasis.
- Global immunology market is projected to grow from USD 92 billion in 2021 to USD 158 billion in 2028.
- Relatively lower risk due to non-systemic administration of medicine.
- Relatively faster timeframes to progress.
- Builds Noxopharm's pipeline.
- Next steps involve multiple technical, safety and toxicity studies, plus formulation and indication target work.

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Reduce Inflammation

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Infectious Inflammatory Diseases

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Genetic Inflammatory Diseases

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Nobelförsamlingen
The Nobel Assembly at Karolinska Institutet
The Nobel Prize in Physiology or Medicine 2023
Nobelpriset i fysiologi eller medicin 2023
Katalin Karikó
Drew Weissman

Nobelförsamlingen
The Nobel Assembly at Karolinska Institutet

October 2, 2023

The Nobel Assembly at the Karolinska Institutet

has today decided to award

...fundamentally changed our understanding on how mRNA interacts with our immune system...

The discoveries by the two Nobel Laureates were critical for developing effective mRNA vaccines against COVID-19 during the pandemic that began in early 2020. Through their groundbreaking findings, which have fundamentally changed our understanding of how mRNA interacts with our immune system, the laureates contributed to the unprecedented rate of vaccine development during one of the greatest threats to human health in modern times.

Press release: The Nobel Prize in Physiology or Medicine 2023 - NobelPrize.org

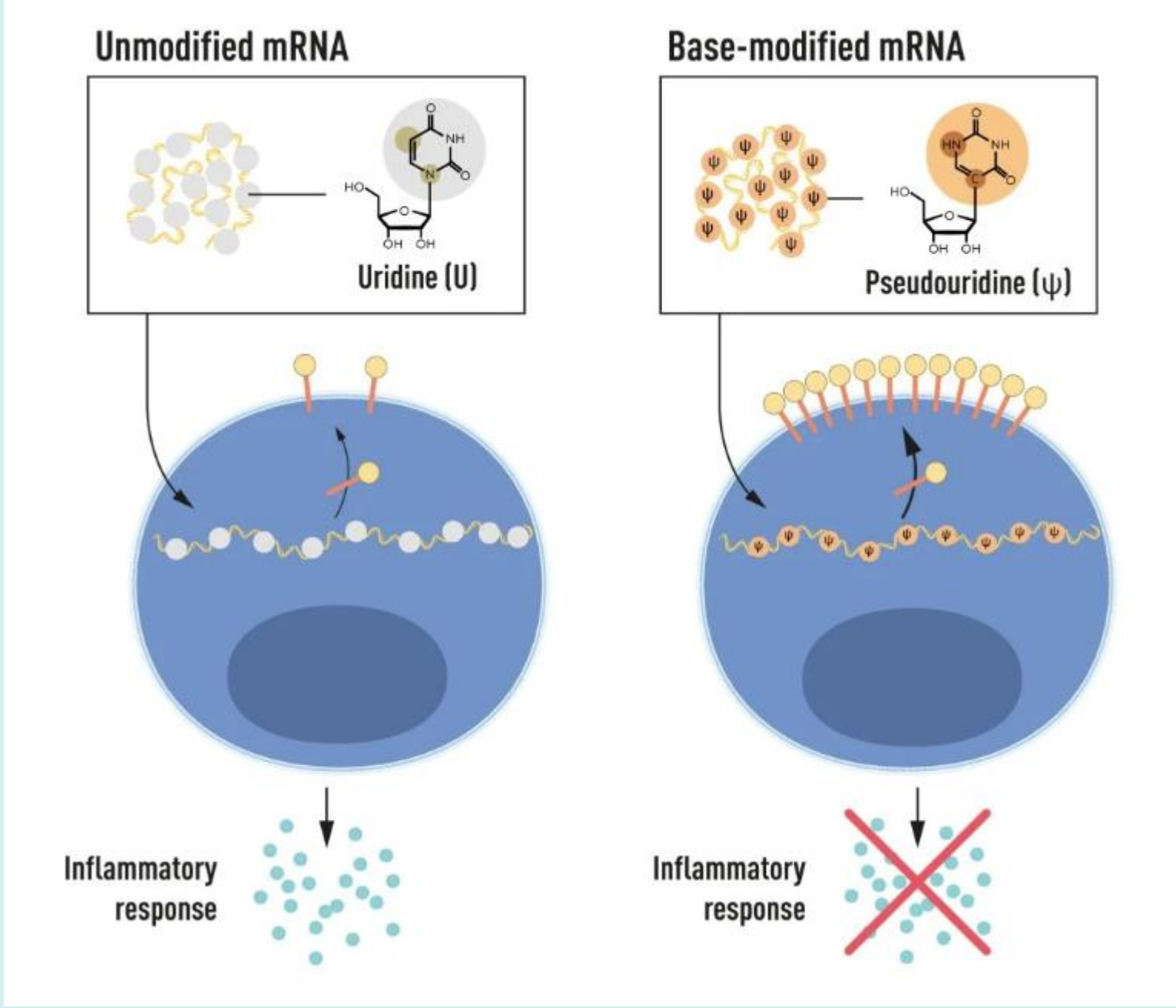
The breakthrough

Karikó and Weissman noticed that dendritic cells recognize *in vitro* transcribed mRNA as a foreign substance, which leads to their activation and the release of inflammatory signaling molecules. They wondered why the *in vitro* transcribed mRNA was recognized as foreign while mRNA from mammalian cells did not give rise to the same reaction. Karikó and Weissman realized that some critical properties must distinguish the different types of mRNA.

… The results were striking: The inflammatory response was almost abolished when base modifications were included in the mRNA.

forms of mRNA. Karikó and Weissman immediately understood that their discovery had profound significance for using mRNA as therapy. These seminal results were published in 2005, fifteen years before the COVID-19 pandemic.

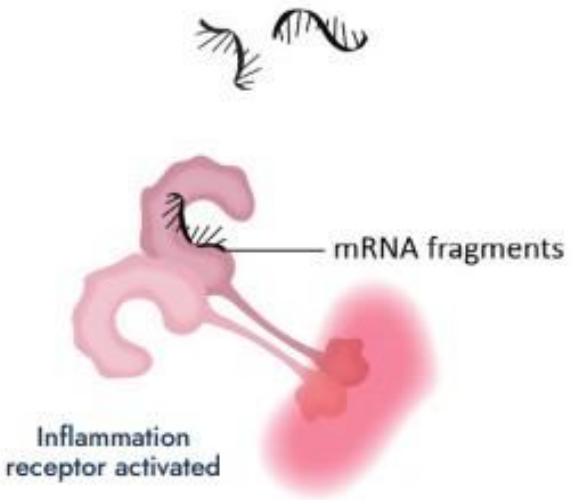
Press release: The Nobel Prize in Physiology or Medicine 2023 - NobelPrize.org



[Press release: The Nobel Prize in Physiology or Medicine 2023 - NobelPrize.org]

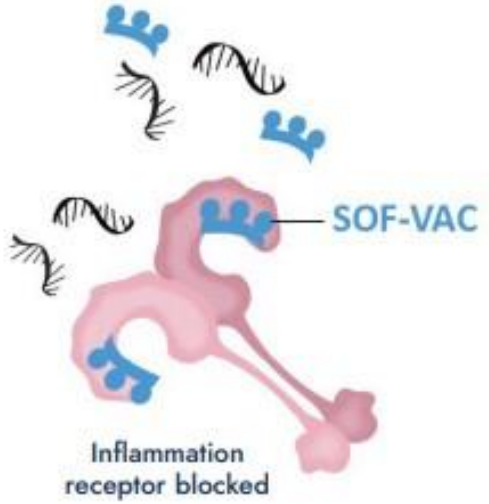
SOF-VAC™ – Mechanism of Action

Current mRNA vaccines



mRNA vaccine fragments bind to inflammatory receptors in the body (called TLR7) causing overstimulation which results in inflammation, and other vaccine side-effects e.g. fever, muscle ache and fatigue.

mRNA vaccine with SOF-VAC™



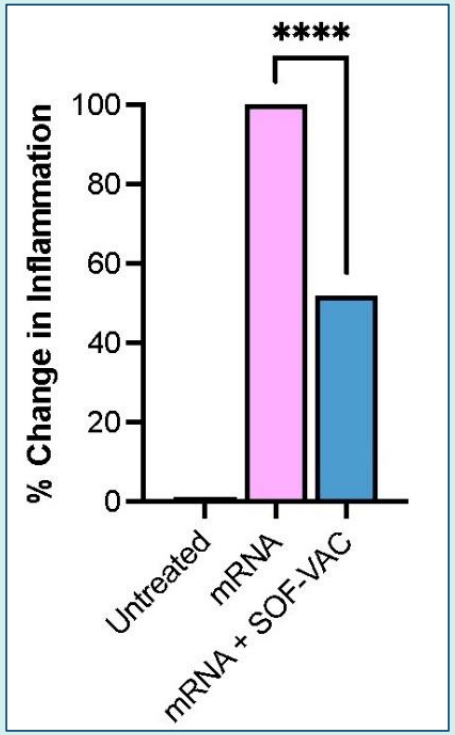
When **SOF-VAC** is combined with the mRNA vaccine, it blocks the inflammation receptors and reduces vaccine side-effects.

SOF-VAC – Benefits

The ability of SOF-VAC to reduce the inflammatory side effects of mRNA vaccines or drugs has several potential benefits, such as:

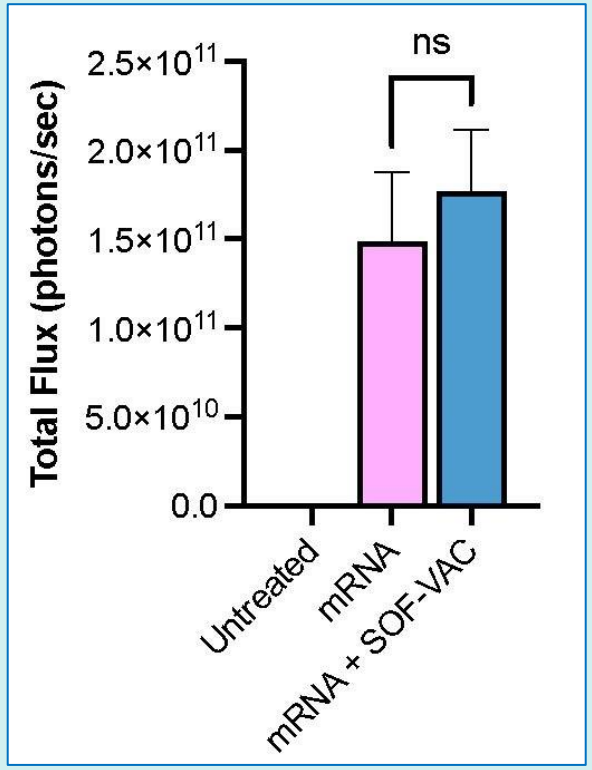
- Enabling mRNA vaccines to be given with higher doses – creating longer-lasting protection and a decrease in the frequency of booster shots required.
- Supporting the combination of mRNA vaccines (or other types of RNA vaccines) for different diseases into one syringe.
- Supporting future mRNA (or other RNA) drugs that require high and repeated doses to help treat a large number of diseases.

SOF-VAC – Recent Data



- 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.

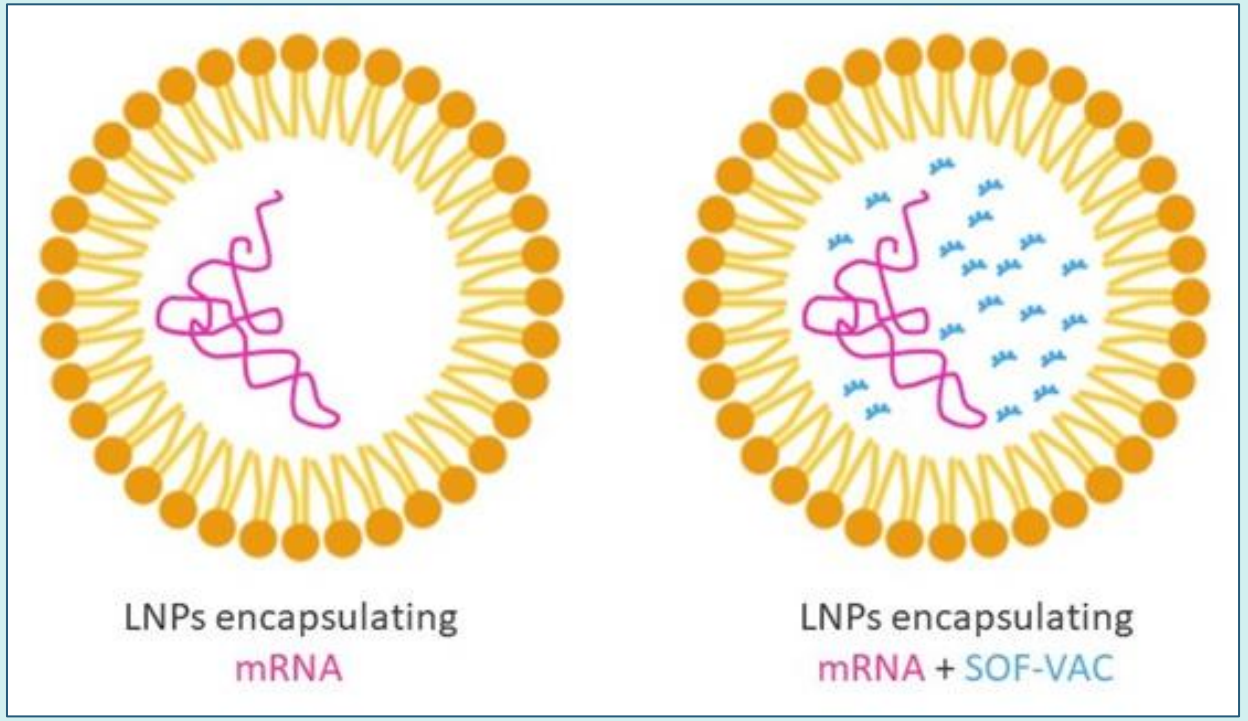


- Since mRNA expression is directly correlated with vaccine activity, i.e. the immunity induced by vaccination, it was critical to show that SOF-VAC did not reduce mRNA translation.

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 – Delivery Mechanism

SOF-VAC can be successfully co-packaged with mRNA inside an FDA-approved delivery system (LNP) without impacting the integrity of the LNPs.



LNP = lipid nanoparticle

SOF-VAC™ – Overview

- SOF-VAC based on short nucleic acid sequences known as oligonucleotides.
- Ultra short oligonucleotides comprising three bases (3-mers).
- 3-mers act on Toll-like receptor 7 (TLR7) – a specific sensor to modulate inflammation at its source.
- SOF-VAC suitable as adjunct for:
  - Current and emerging RNA technologies (e.g. mRNA, self-amplifying, circular RNA)
  - Multivalent vaccines
  - RNA therapeutics – numerous indications with broad applicability

SOF-VAC – Next Steps

- COVID-19 vaccines are projected to make up most of the mRNA market until 2025.
- Other prophylactic vaccines, therapeutic vaccines, and therapeutics will then become larger shares.
- The mRNA market is forecast to be USD 137 billion by 2032.
- SOF-VAC gives potential customers a competitive advantage.
- Marketing and outreach activities already underway.
- Strategy to find commercial partner that will progress SOF-VAC to next stage of development.

Summary

Program	Discovery	Screening	Preclinical	Collaborators
Chroma	CRO-67	Pancreatic Cancer		UNSW Sydney
Sofra	SOF-VAC	Adjuvant for mRNA vaccines		Hudson Institute of Medical Research
	SOF-SKN	Autoimmune skin disease		Hudson Institute of Medical Research

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Questions