

NeuroScientific

ASXNSB

# Patented Stem Cell Solutions for Complex Auto-Immune Disorders & Unmet Needs

Nathan Smith – Chief Executive Officer

TechKnow Invest Roadshow

August 2025

# Disclaimers

NeuroScientific

## Presentation Information

This presentation has been prepared by NeuroScientific Biopharmaceuticals Ltd (ASX: NSB) based on information available to it as at the date of this presentation. The information in this presentation is provided in summary form and does not contain all information necessary to make an investment decision.

This presentation does not constitute an offer, invitation, solicitation or recommendation with respect to the purchase or sale of any security in NSB, nor does it constitute financial product advice or take into account any individual's investment objectives, taxation situation, financial situation or needs. An investor must not act on the basis of any matter contained in this presentation but must make its own assessment of NSB and conduct its own investigations. Before making an investment decision, investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, and seek legal, taxation and financial advice appropriate to their jurisdiction and circumstances. NSB is not licensed to provide financial product advice in respect of its securities or any other financial products. Cooling off rights do not apply to the acquisition of NSB securities.

Although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and that the opinions expressed are fair and reasonable, no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of NSB, its officers, directors, employees and agents, nor any other person, accepts any responsibility and liability for the content of this presentation including, without limitation, any liability arising from fault or negligence, for any loss arising from the use of or reliance on any of the information contained in this presentation or otherwise arising in connection with it. The information presented in this presentation is subject to change without notice and NSB does not have any responsibility or obligation to inform you of any matter arising or coming to their notice, after the date of this presentation, which may affect any matter referred to in this presentation. The distribution of this presentation may be restricted by law and you should observe any such restrictions.

## Forward Looking Statements

This presentation contains certain forward-looking statements that are based on the Company's management's beliefs, assumptions and expectations and on information currently available to management. Such forward looking statements involve known and unknown risks, uncertainties, and other factors which may cause the actual results or performance of NSB to be materially different from the results or performance expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the political and economic environment in which NSB will operate in the future, which are subject to change without notice. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. To the full extent permitted by law, NSB and its directors, officers, employees, advisers, agents and intermediaries disclaim any obligation or undertaking to release any updates or revisions to information to reflect any change in any of the information contained in this presentation (including, but not limited to, any assumptions or expectations set out in the presentation).



# NeuroScientific

ASXNSB

Innovative biotechnology company, dedicated to developing novel technologies targeted at immune-mediated inflammatory diseases.

Specialising in the use of mesenchymal stem cells (MSCs) – adult stem cells that can reduce inflammation, promote the repair of tissue, and help the body's immunity responses.



**Robust Company & Strong Balance Sheet:** ~\$60M market cap with \$7.3M in cash, strong leadership team to achieve operational and strategic objectives, and technology platform with potential in several indications



**StemSmart™ Tech Platform:** a method of manufacturing MSC for the treatment of disorders with significant inflammation (ie Crohn's disease) with a global IP position



**Proven Clinical Efficacy:** strong safety profile and 78% overall response (ORR)<sup>1</sup> in refractory Crohn's Phase 2, with ongoing SAS program in fistulising Crohn's. Future trials anticipated, targeting lung and kidney disorders



**Secure Supply Chain:** expanded manufacturing capacity through tech transfer to Q-Gen to support commercialisation pathway

1. ASX Announcement 16 April 2025. "NeuroScientific to Acquire Leading Stem Cell Technology."

# Company Overview

NeuroScientific

## CORPORATE SHARE INFORMATION

AS AT 15 AUGUST 2025

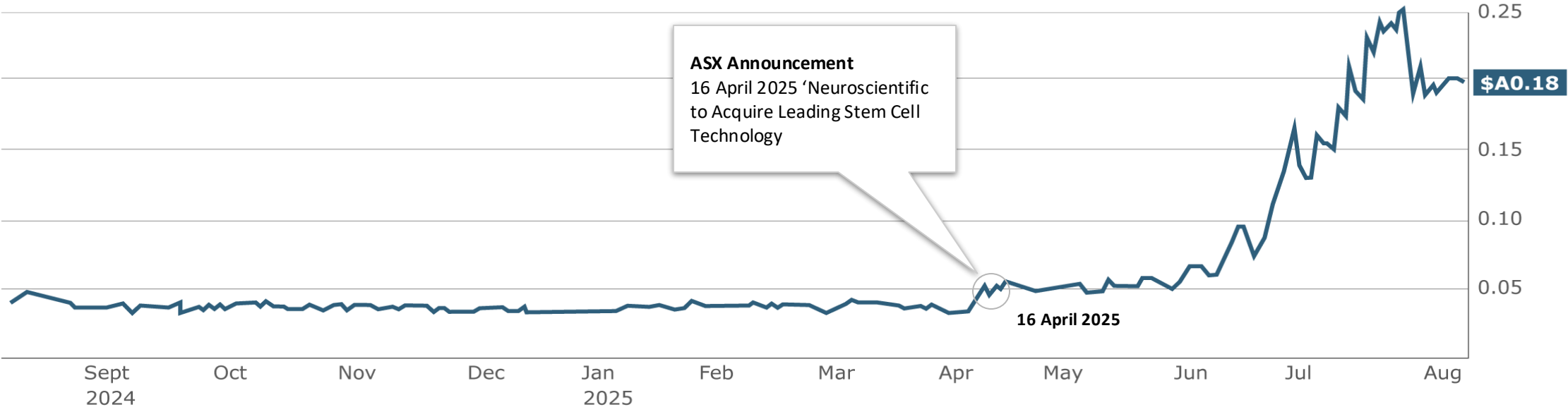
SHARE PRICE	A\$0.18
MARKET CAPITALISATION	~A\$60 million

## CAPITAL STRUCTURE & CASH ON HAND

	ORDINARY SHARES	PERFORMANCE SHARES	OPTIONS
CAPITAL	333.2 million	57.1 million	45.25 million
CASH	~\$7.3 million		

## SHARE PRICE CHART

AS AT 15 AUGUST 2025



# Strength in Leadership & Advisory

NeuroScientific

## **ROB MCKENZIE**

LL.B; B.Juris, FAICD

### **NON-EXECUTIVE CHAIRMAN**

Rob is a lawyer with over 35 years' experience in corporate and commercial transactions, restructuring and dispute resolution. He has advised companies on mergers and acquisitions; floats; corporate structuring and restructuring; corporate governance; board and meeting compliance and investment and financial structuring. Rob is currently Chairman of the Perron Institute and was previously on the Takeovers Panel.

## **PAUL FRY**

BBus, C.A.

### **NON-EXECUTIVE DIRECTOR**

Paul was a former Partner of Ernst and Young and PwC in Australia and Canada and consults to companies in a broad range of industries.

Paul's expertise centres around public markets, capital raisings, governance, risk management and corporate transactions. He has been involved with numerous entities listed on the ASX.

## **DR ANTON UVAROV**

PhD, MBA

### **NON-EXECUTIVE DIRECTOR**

Dr Uvarov has significant experience in the healthcare industry with a particular focus on neuroscience. Dr Uvarov started his career in biotechnology investments as an equities analyst with Citigroup and has co-founded numerous publicly listed companies in Australia, including Dimerix (ASX: DXB), Actinogen Medical (ASX: ACW), Neuroscientific Biopharmaceuticals (ASX: NSB), and most recently BlinkLab (ASX: BB1). Anton is currently an executive director at BlinkLab.

## **CLARKE BARLOW**

### **NON-EXECUTIVE DIRECTOR**

Mr. Barlow is a Financial Adviser and Capital Markets Specialist with over 20 years' experience in the Financial Services Industry in Australia and the United Kingdom. Clarke has extensive experience providing corporate advisory services for companies listed on the ASX across a variety of industries, with a particular focus on growth opportunities in the Biotechnology, Technology, Industrial and Resources industries.

## **Chief Executive Officer**

### **NATHAN SMITH**

Nathan has broad experience in organisational leadership across biologics and cell & gene therapy over the last 25 years. Previous roles with GlaxoSmithKline, Sanofi Genzyme, Mesoblast, BioReliance, and most recently, Cell Therapies Pty Ltd, where Nathan led all business development activities for the Melbourne-based CDMO.

## **Chief Scientific Officer**

### **DR MARIAN STURM**

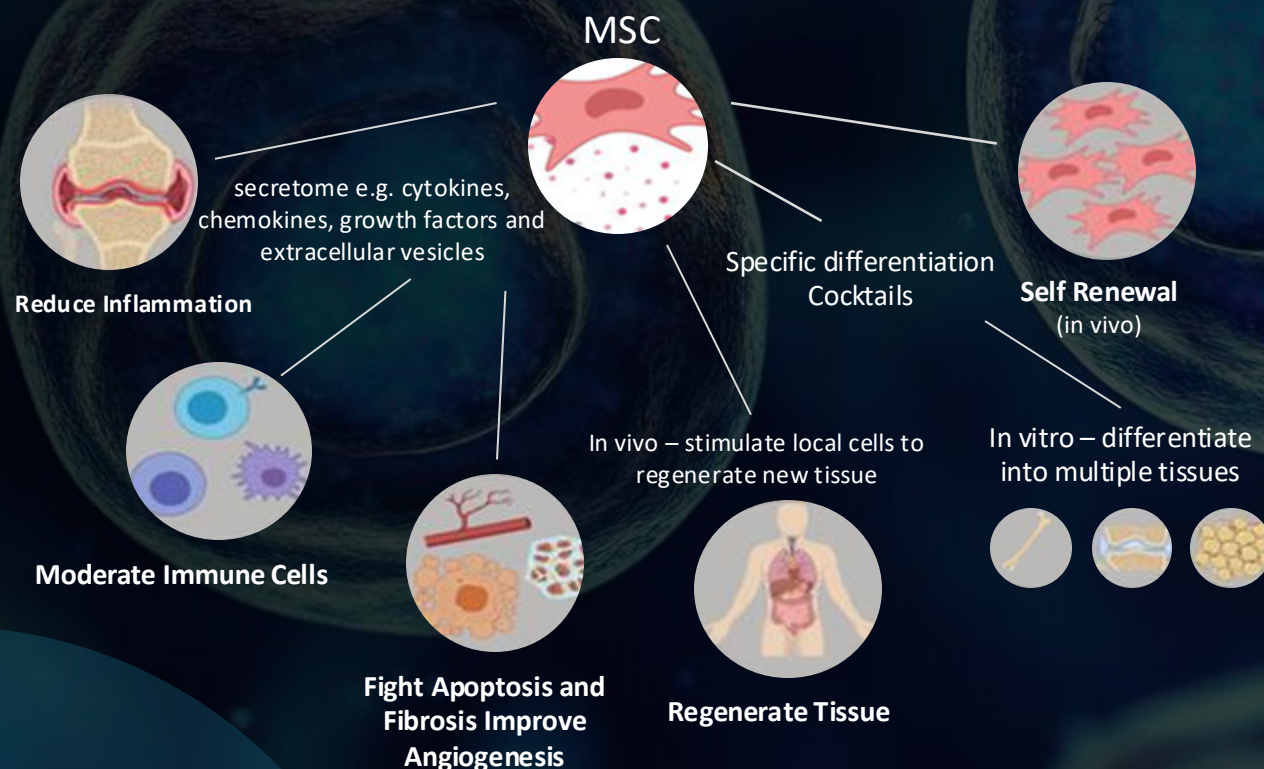
FFSc (RCPA), PhD, MSc, BSc Hons  
CSA & CHAIR OF ADVISORY BOARD

An expert in the research, operational and clinical development of cellular treatments, with over 40 years experience, Marian has been involved in the manufacturing of therapeutic goods for over 20 years and was a member of the TGA Advisory Committee on Biologics since its inauguration in 2012 to 2022.



## What are Mesenchymal Stem Cells (MSC)?

MSC are adult stem cells, traditionally harvested from bone marrow, but also able to be isolated from other tissues.



## How Does Stem Cell Technology Work?

Stem cells are often called the “body's building blocks”, as they can potentially develop into any tissue or organ.

Mesenchymal stem cells interact with the immune system, adjusting immune responses and reducing inflammation in target tissue, contributing to disease control and tissue repair.





# NeuroScientific

## Industry News

ASXNSB

**United States FDA recently approved the first mesenchymal stromal cell<sup>1</sup>**

**United States FDA recently approved the first mesenchymal stromal cell (MSC) therapy (Mesoblast ASX Announcement 19.12.2024 (ASX: MSB - MSB market capitalisation as at 18 June 2025 of ~A\$2 billion))<sup>1</sup>. While MSC products have been approved in other jurisdictions, the FDA approval of allogenic, bone marrow-derived MSC product for paediatric, steroid-refractory, acute graft-versus-host-disease (GvHD) is momentous.**

The International Society for Cell & Gene Therapy (ISCT), the peak international body for cell therapies, described it as a pivotal moment in the history of medicine shaping the future of therapeutics. They further noted that this approval rewards the work of researchers, clinicians, and innovators around the globe who have dedicated their careers to this field. This US decision paves the way for renewed enthusiasm and global investment in clinical research of MSC therapies.

**FDA Approval**

1. Mesoblast ASX Announcement 19.12.2024 and NSB, ASX Announcement 16 April 2025 'Neuroscientific to Acquire Leading Stem Cell Technology'

# Introducing StemSmart™

NeuroScientific

**StemSmart™ early indications from the Phase 2 trial in refractory Crohn's disease suggest that the StemSmart™ MSC is potent, efficacious and safe<sup>1</sup>**



**High-quality product manufactured under StemSmart™ methodology**



**StemSmart™ is a global patented technology**

- Patented process for the manufacturing of cell products, involving the use of proprietary media to improve efficacy and safety
- Primes cells for better response to inflammation



**No serious adverse events reported in patients treated using StemSmart™ in multiple clinical trials and under compassionate use**



**Potential application to multiple different inflammatory conditions, including Crohn's disease, GvHD, lung conditions, and kidney transplantation**

StemSmart™

1. ASX Announcement 16 April 2025 'NeuroScientific to Acquire Leading Stem Cell Technology'  
2. Refer to Annexure 1 for a summary of the details and findings from the Phase 2 trial (also included in NSB ASX Announcement dated 16 April 2025).



# Cell Therapy for Serious Inflammatory Immune Disorders

NeuroScientific

## Mesenchymal Stem Cells (MSC) have a strong safety profile

MSCs require an inflammatory environment to be activated for clinical effect

- MSC work most effectively where there is **HIGH** level of inflammation in the target tissue
- MSC respond to inflammation by secreting factors that reduce the activation and proliferation of immune cells and down-regulate their production of inflammatory mediators
- MSC also secrete substances that can neutralize some inflammatory mediators
- MSC therapy appears most suitable for serious inflammatory/immune disorders

StemSmart™ MSC are primed to respond to inflammation

- MSC are engineered for increased potency, as demonstrated by gene expression and increased production of anti-inflammatory proteins.
- MSC are best used in patients who have not responded to conventional treatments (e.g. steroids, biologics, immunosuppressants & other anti-inflammatory agents) as evidenced by trials/studies

StemSmart™

## Stem Cell Technology for Refractory Crohn's

### Refractory Crohn's (life threatening)

Unresponsive to conventional therapies (Antibiotics/Steroids/Biologics)

Surgery only option

~30% patients become refractory– don't respond to therapies

### Fistulas

Sores/ulcers, creating abnormal passageway from intestine to another organ or to outside surface of the body

About 30% of Crohn's patients will develop fistulas

Unresolved chronic inflammation



6-8 million



People living with Crohn's disease globally\*

StemSmart™

## What is Crohn's Disease?

- Life-long chronic inflammation of the gut
- Incurable affecting more than 1 million in the USA alone
- Has a chronic relapsing and remitting course, sometimes life-threatening
- Considered an auto-immune disorder, affecting all age groups, with incidence peaking in early adulthood
- Commonly results in perianal Fistulas



Crohn's disease can affect the total length of the GI tract



Fistulas can develop between the anal canal and the skin near the anus

# Special Access Program<sup>1</sup>

Commenced June 2025

NeuroScientific

## Crohn's Fistulas

Treatment of patients with Crohn's  
Fistulas on compassionate grounds (SAS)

- Commenced in June 2025<sup>2</sup>
- ≤12 patients
- Non healing fistulas
- Administration of StemSmart™ at weekly intervals, for 4 weeks
- Evaluation at 8-10 weeks
- Performance shares shall convert based on the successful completion of a special access program on achieving a clinical response (see below) in at least 4 patients.

## Clinical Response

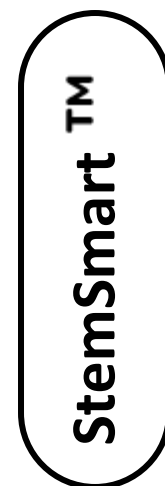
Defined as:

- As assessed by the treating physician or qualified investigator:
- Closure of ≥ 50% of all fistula openings in a patient or;
- ≥ 50% reduction of fistula discharge in a patient

## Next step

for Crohn's fistula – if program successful

- Conduct a trial in Fistulising Crohn's for regulatory acceptance
- Strong clinical trial result may result in expedited regulatory approval (Priority Review Pathway) in Australia



1. ASX Announcement 16 April 2025 'Neuroscientific to Acquire Leading Stem Cell Technology & ASX Announcement 23 May 2025 'Special Access Program Set to Commence'  
2. ASX Announcement 27 June 2025 'StemSmart™ Acquisition Complete'



# Product Pipeline & Market Size

NeuroScientific

## Key Clinical Targets (StemSmart™ Addressable Markets)

## Global Market

## Forecast Increase in Market



## Crohn's Disease

- Need for more effective treatments with less side effects
- Require additional treatment option for patients who have failed all other medical therapies

**US\$13.8 billion**

By 2026<sup>1</sup>

Increase from US\$9.0 billion in 2016

53%  
from 2016



## Kidney Transplant

- Need rescue therapies for acute renal rejection
- Minimise rejection risk, while reducing toxicity
- Need to improve long term patient graft function and patient survival

**US\$7.2 billion**

in 2030<sup>2</sup>

(Organ transplant immuno-suppressants Market)

Increase from US\$5.5 billion in 2024

**31%**  
from 2024



## Lung Disorders

- No long-term effective treatment for COPD – results in airflow obstruction (obstructive bronchiolitis and emphysema)
- Lung Transplant Rejection
- Current treatments cumbersome, ineffective, terminal disease

**US\$33 billion**

by 2034<sup>3</sup>

Increase from US\$20 billion in 2024

**65%**  
from 2024



## GvHD

- Patients may develop a severe and life-threatening condition after a bone marrow transplant
- Currently low rate of survival in severe refractory GVHD

**US\$5.31 billion**

in 2032<sup>4</sup>

Increase from US\$2.55 billion in 2023

208%  
from 2023

1. Crohn's Disease: Dynamic Market Forecast to 2026 - <https://www.globaldata.com/store/report/crohns-disease-dynamic-market-forecast-to-2026/>

2. Grand View Research - Organ Transplant Immunosuppressant Drugs Market Size - <https://www.grandviewresearch.com/horizon/outlook/organ-transplant-immunosuppressant-drugs-market-size/global>

### 3. PharmaPoint: Chronic Obstructive Pulmonary Disease – Global Drug Forecast Market Analysis to 2025 -

\*for organ transplant immuno-suppressants - <https://www.precedenceresearch.com/chronic-obstructive-pulmonary-disease-treatment-market#:~:text=The%20global%20chronic%20obstructive%20pulmonary,5.14%25%20between%202024%>

4. Global Graft versus Host Disease (GVHD) Market 2019-2029 - <https://www.globenewswire.com/news-release/2024/11/07/2976830/28124/en/Graft-Versus-Host-Disease-GvHD-Treatment-Industry-Forecast-Report-2024-2032-Global-Market-Size-Forecast-to-Double-with-Emerging-Markets-Offering-Substantial-Growth-Potential.html>

## Securing the StemSmart™ Supply Chain

- **Partnership with Q-Gen Cell Therapeutics<sup>1</sup>**
- Tech transfer has been initiated for NSB's patented manufacturing process with targeting Phase 2 clinical trial supply by 2H CY 2026.
- Q-Gen has a 13 cleanroom facility that has been licensed by the TGA for manufacturing, testing and release for supply of clinical products.
- With over 25 years experience in cell therapy manufacturing supporting industry, Q-Gen has the capacity and capability to support NSB's clinical and commercial objectives.

1. ASX announcement 31 July 2025 "NeuroScientific Partners with Leading Biologic Manufacturer."

# Upcoming Milestones

NeuroScientific

## SAS Program progression

Planned ≤12 patients treated with clinical response results

- **Q4 2025:** First 4 patients results announced
- **Q2 2026:** Full program completion and results announced

## Phase 2 Clinical Trial Initiation – Crohn’s Disease

Expedited review by the TGA

- **Q1 2026:** CRO selection
- **Q2 2026:** FDA Pre-IND meeting
- **Q4 2026:** Phase 2 clinical trial initiation in Australia

StemSmart™



# NeuroScientific

## Key Corporate Factors

ASXNSB

### Global Crohn's Situation



StemSmart™ holds significant potential to improve quality of life for a large global market. **Over 6 Million people living with Crohn's globally**

### Patented Technology

StemSmart™



Following the successful Phase 2 trial in refractory Crohn's disease, NSB is undertaking a special access program for fistulising Crohn's disease.

### SAS Fistulising Crohn's Program Initiated

*Results pending*



### Market Diversification

The power of StemSmart™



Diversifying research into diseases beyond Crohn's offers broader markets and allows patented technology to be used in other areas of need





# NeuroScientific

## ASXNSB

**For further information, please contact:**

**Nathan Smith**

Chief Executive Officer

+61 477 738 404

[nsmith@neuroscientific.com](mailto:nsmith@neuroscientific.com)

**Dr Anton Uvarov**

Founding Non-Executive Director

+61 8 6268 2641

[au@neuroscientific.com](mailto:au@neuroscientific.com)