

 TISSUE REPAIR

---

Glucoprim<sup>®</sup> hydrogel  
(TR987<sup>®</sup> for chronic wounds; TR  
Pro+<sup>™</sup> for damaged or wounded skin)

*This announcement has been approved for release by TRP's board.*

tissuerepair.com.au | trproplus.com

# Important notice and disclaimer

This presentation (Presentation) is dated 7 November 2022 and has been prepared by Tissue Repair Ltd (ACN 158 411 566) (Tissue Repair or the Company).

## **Information in this Presentation**

The information in this Presentation is of a general background nature for informational purposes, is in summary form and does not purport to be complete. It does not contain all information relevant or necessary for an investment decision or that would be required to be included in a prospectus or other disclosure document under the *Corporations Act 2001* (Cth) (Corporations Act) for an offer of securities in Australia or in any other jurisdiction. The content of this Presentation is provided as at the date of this Presentation (unless otherwise stated). The information in this Presentation is subject to change without notice and, subject only to any legal obligation to do so. The Company does not have any obligation to correct or update the content of this Presentation.

## **Not a prospectus or offer of securities**

This Presentation is not a prospectus or any other offering document under Australian law and will not be lodged with the Australian Securities Investments Commission (ASIC). This Presentation is not, and does not constitute, an invitation, offer or recommendation of securities for subscription, purchase or sale in any jurisdiction. This Presentation also does not form the basis of any contract or commitment to issue, sell or apply for securities in Tissue Repair or any of its subsidiaries.

## **Past and future performance**

Past performance information given in this Presentation is given for illustrative purposes only and should not be relied upon as (and is not) an indication of future performance.

This Presentation contains certain forward-looking statements with respect to the financial condition, operations and business of the Company and certain plans and objectives of the Company. Forward-looking statements can be identified by the use of forward-looking terminology, including, without limitation, the terms "believes", "estimates", "anticipates", "expects", "predicts", "intends", "plans", "targets", "aims", "outlook", "guidance", "forecasts", "may", "will", "would", "could" or "should" or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. These forward looking statements involve known and unknown risks, uncertainties and other factors that because of their nature may cause the actual results or performance of the Company to be materially different from the results or performance expressed or implied by such forward looking statements. They are based on numerous assumptions regarding the Company's present and future business strategies and the political and economic environment in which the Company will operate in the future, which may not be reasonable, and are not guarantees or predictions of future performance. No representation is made that any of these statements or forecasts will come to pass or that any forecast result will be achieved, or that there is a reasonable basis for any of these statements or forecasts. Forward-looking statements speak only as at the date of this presentation and to the full extent permitted by law, the Company disclaims 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).

## **Restriction on distribution**

The distribution of this Presentation (including an electronic copy) outside Australia may be restricted by law. Any recipient of this Presentation who is outside Australia must seek advice on and observe any such restrictions.

## **Not financial or product advice**

Reliance should not be placed on the information or opinions contained in this Presentation. This presentation is for informational purposes only and is not financial product or investment advice or

recommendation to acquire any securities in the Company and does not take into consideration the investment objectives, financial situation or particular needs of any particular investor. Nothing contained in this Presentation constitutes investment, legal, tax or other advice. An investor is solely responsible for forming its own opinions and conclusions on such matters and the market and for making its own independent assessment of the information provided. Any investment decision should be made solely on the basis of the investor's own enquiries and it should consider whether such an investment is appropriate to its particular investment objectives, financial situation and needs. Recipients should conduct their own research into the financial condition, assets and liabilities, financial position and performance, profits and losses, prospects and business affairs of the Company and its business, and the contents of this Presentation. Recipients should seek legal, financial, tax and other advice appropriate to your jurisdiction. Tissue Repair is not licensed to provide financial product advice.

An investment in securities is subject to known and unknown risks, some of which are beyond the control of Tissue Repair and its directors, including, possible loss of income and principal invested. Tissue Repair does not warrant or represent that the information in this Presentation is free from errors, omissions or misrepresentations or is suitable for an investor's intended use. Subject to any terms implied by law and which cannot be excluded, Tissue Repair accepts no responsibility for any loss, damage, cost or expense (whether direct, or indirect, consequential, exceptional or special damages including but not limited to loss of revenue, profits, time, goodwill, data, anticipated savings, opportunity, business reputation, future reputation, production or profit, any delay costs, economic loss or damage) incurred by an investor as a result of any error, omission or misrepresentation in this Presentation. Tissue Repair does not guarantee any particular rate of return or the performance of the Company, nor does it guarantee any particular tax treatment.

## **Financial information**

The Financial Information has been prepared in accordance with the recognition and measurement principles prescribed by the Generally Accepted Accounting Principles in Australia which complies with the International Financial Reporting Standards (IFRS). The Financial Information is presented in an abbreviated form. It does not include all of the presentation and disclosures required by the IFRS and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the Corporations Act or Australian law. All financial amounts contained in this Presentation are expressed in Australian currency, unless otherwise stated. Any discrepancies between totals and sums of components in tables contained in this Presentation are due to rounding.

## **Third party information and market data**

The views expressed in this Presentation contain information that has been derived from independent third party reports, research, clinical papers, surveys or publicly available sources that have not been independently verified by Tissue Repair or its advisers. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

## **Acceptance**

By attending a presentation or briefing, or accepting, accessing or reviewing this Presentation you acknowledge and agree to the terms set out in this section of the Presentation titled 'Important notice and disclaimer'. This Presentation may not be copied, disseminated, distributed, quoted, referred to or otherwise reproduced or published, in whole or in part, for any purpose without the prior written permission of Tissue Repair.

# Executive Summary



## Unique platform technology

- Technology platform is a unique immunogenic active ingredient, Glucoprime®, that improves wound healing
- The immunomodulatory mechanism of action suits different indications, allowing multiple applications
- Glucoprime® may satisfy FDA requirements as a new chemical entity which could allow 5 years of exclusivity



## Differentiated drug label strategy provides valuable opportunity

- Core focus is on realising value from the Glucoprime® technology through drug approval of the chronic wound product, TR987®, to treat chronic wounds
- Chronic wounds represent a significant opportunity; costing the US federal healthcare system up to US\$50bn<sup>(1)</sup>. Tissue Repair is initially targeting the US\$1.7bn global market of active wound care products (biologics)
- Existing wound care treatments are dominated by medical devices, scaffolds and human placental-derived products
- Tissue Repair aims to provide a topical gel targeting a superior and more cost-effective outcome than alternative therapies



## Phase 3 clinical trials commencing in 2023

- Positive signal for wound healing demonstrated in clinical trials to date, most recently completing a phase 2 chronic wound clinical trial in late 2020 under an FDA approved protocol (randomised, double-blind and placebo-controlled)
- Planned phase 3 trials aiming to prove superior in-use outcomes to the current in-market treatments



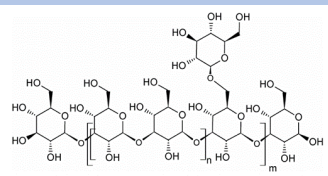
## Commercialisation of aftercare product for medical and cosmetic treatments

- Secondary strategy to commercialise TR Pro+™ for post-procedure aftercare of medical and cosmetic procedures (such as laser skin resurfacing)
- Supported by clinical data from a phase 2 trial on laser skin resurfacing showing improved skin quality (elastosis and wrinkling) at 28 days
- In the USA alone, an estimated US\$3.4bn was spent on potentially relevant minimally invasive cosmetic procedures<sup>(2)</sup>

## Glucoprime®

### The Technology

Tissue Repair's immunomodulatory active ingredient, Glucoprime® stimulates the body's natural innate immune response to assist wound healing



### The Benefits

- The immunomodulatory mechanism of action seeks to offer significant clinical benefits to patients undergoing treatment for acute or chronic wounds including:
  - closure for wounds which have stalled and become chronic;
  - lower cost of hospitalisation and medical treatment;
  - enhanced patient quality of life;
  - improved healing of wounded or damaged skin; and
  - improved aftercare of cosmetic and medical procedures.

### The Evidence

- The drug product, containing the Glucoprime® API, has been used on over 240 patients across two indications in phase 1, phase 2, and real-world evidence studies
- All phase 2 trials have been conducted as randomised, double-blind and placebo-controlled studies
- Tested on chronic wounds (venous leg ulcers; n=82) with a positive signal of efficacy<sup>(1)</sup>:
  - 20.4% (p=0.13) and 28.1% (p=0.087) difference in incidence of complete closure VLU 2-12cm<sup>2</sup> (ITT and PP groups, respectively)<sup>1</sup>
  - 25.7% (p=0.071) and 31.7% (p=0.042) difference in incidence of at least 90% wound closure (ITT and PP groups, respectively)<sup>1</sup>
- Tested following laser skin resurfacing (n=40), achieving a significant improvement in skin quality (assessed by elastosis and wrinkling) at day 28<sup>2</sup>
- Real-world evidence study (n=48) with 85% of patients considering their wound to be healing 'well/very well', and 81% of patients 'satisfied/very satisfied' with their experience using TR Pro+, at day 28.

### The Potential

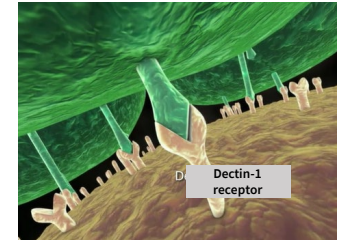
- Potential to be used across a variety of applications and indications

# Glucoprime® – Mechanism of action

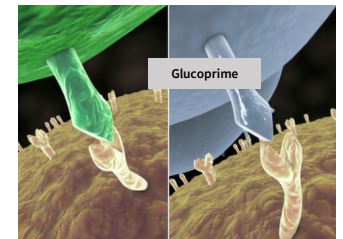
- There is recognition of the Glucoprime®- containing hydrogel by receptors on macrophages within the tissue. Macrophages are the 'guard' cells that protect against invaders.



- Two receptors, dectin-1 and TLR2, are engaged and trick the body into believing there is a yeast infection. Macrophages become activated to express genes that enable phagocytosis, protein synthesis and cytokine release.



- In this way TR Pro+ (with Glucoprime®) initiates a mild innate immune response that attracts more macrophages as well as other immune cells like neutrophils and monocytes.



- In laboratory and clinical studies TR Pro+ has been shown to promote wound healing by activating some genes in macrophages (TNF $\alpha$  and IL-10).
- Macrophages play a key role in re-modelling by releasing growth factors that aid in tissue repair and angiogenesis.

# Two indications targeting different conditions

	Market	Product	Strategy	Stage of clinical development					Commercial launch		
				Preclinical	Ph 1	Ph 2A	Ph 2B	Ph 3			
Primary focus	#1	Chronic wounds	TR987®	<ul style="list-style-type: none"> <li>Achieve FDA and TGA approval as a topical drug for use in venous leg ulcers</li> <li>Obtain reimbursement in the US and Australia</li> </ul>						Clinical trial expected in 2023* (venous leg ulcers)	2025 (following FDA/TGA approval)
	#2	Cosmetic and medical procedures	TR Pro+™	<ul style="list-style-type: none"> <li>Commercialise as a post-procedure aftercare product</li> <li>Initially launched as a 'cosmetic' product while seeking TGA approval</li> </ul>						Product developed for launch leveraging existing phase 2 trials	2023
	#3	New indications	Potential for a variety of products	<ul style="list-style-type: none"> <li>Invest in the research and development of additional products and build clinical evidence for a broader range of indications</li> </ul>						R&D potentially commencing in 2023	

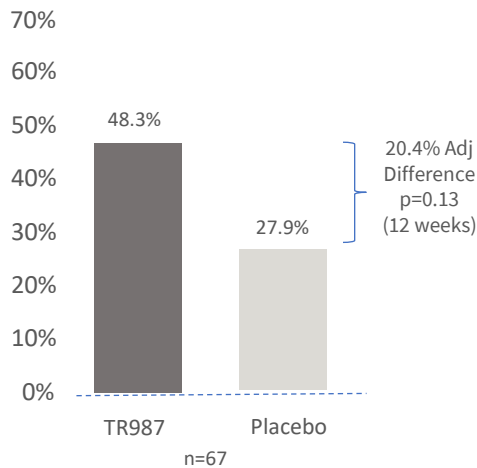
\* Pending FDA approval

# Clinical Study – chronic wounds (2020)

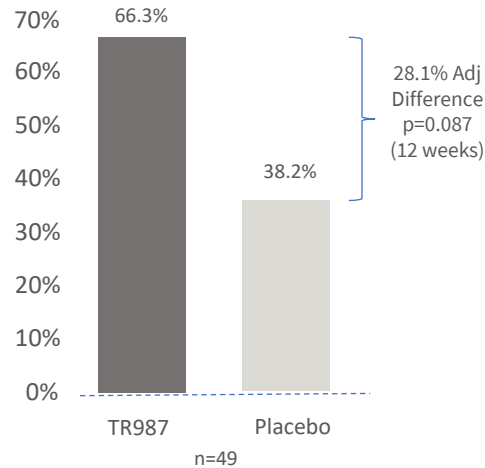
## Phase 2B: Study of the Efficacy of TR 987, beta-1,3-1,6-D-glucan, in the Treatment of Chronic Venous Insufficiency Ulcers (BG001, Australia/USA, 2020).

To assess the time to heal within 12 weeks between chronic VLU treated with TR987® gel and Standard of Care (SoC) versus placebo gel and SoC.

Adjusted Incidence of Complete Closure (2-12cm<sup>2</sup>)  
2020 phase 2B (Intention to Treat) 100% healed



Adjusted Incidence of Complete Closure (2-12cm<sup>2</sup>)  
2020 phase 2B (Per Protocol) 100% healed



7.53cm<sup>2</sup> ulcer had been present for 208 weeks and was healed in 10 weeks (Heidelberg Repatriation Hospital Melbourne).

TR987® 2020 phase 2B FDA VLU trial PP and ITT groups (adjusted difference based on logistic regression analysis, controlling for factors known to affect healing),

*TR987® confirmed a strong signal of efficacy to heal chronic venous leg ulcers after 12 weeks treatment*



# Key product advantages – TR987® for chronic wounds

## Strong efficacy signal from well designed trials

- No drug or biologic appears to have been approved in chronic wounds since REGRANEX gel in 1997, and as such a drug indication for chronic wounds supported by high quality clinical data drives reimbursement and is highly prized
- Positive signal for efficacy in wound healing (including key FDA accepted endpoints) demonstrated in clinical trials

## Aiming to prove superior in-use outcomes over current therapies

- Existing therapies are typically expensive and require application by healthcare professionals in a hospital setting. Many are derived from human placental tissue
- Tissue Repair aims to provide a superior in-use alternative to these therapies, without a reliance on harvesting human tissue and the ease of a topical gel in contrast to a complicated patch or scaffold

## Positive safety profile

- TR987® has a positive safety profile across its clinical program to date
- TR987® has been tested across different indications on over 240 patients with no significant adverse events attributable to the drug product

## Ease of use

- Administered topically onto the wound – no complicated bandages or patches
- Can be used in combination with standard of care products, including compression bandaging
- Capable of being administered by a nurse/caregiver or in the home directly by the patient

## Stable over a long shelf life

- Preliminary stability testing of TR987® suggests a three-to-five-year shelf life at room temperature may be achievable with no refrigeration or freezing required



# Milestones and initiatives over the short-to-medium term – TR987<sup>®</sup> for chronic wounds

## Completed

- Completion of FDA Type C meeting with positive outcomes for raw material, CMC and abridged toxicology program
- Appointment of two CMOs to manufacture the Glucoprime<sup>®</sup> API and finished gel product
- Production of three laboratory batches that confirmed reproducibility of Glucoprime<sup>®</sup> API
- Generation of four engineering and two GMP batches to confirm batch consistency and generate Glucoprime<sup>®</sup> API for phase 3 trial
- Ongoing method analysis and validation to support the 20+ characterisation tests
- Engagement of Principal Investigator (Prof. Robert Kirsner, Miami) for phase 3 VLU trial
- Engagement of US-based consultancy to undertake a reimbursement landscape assessment for the US (Q4 2022)

## Planned

- Initiation of a 28-day minipig study as part of the toxicology program to support product safety (Q3 2023)
- Finalisation of the phase 3 protocol (Q1 2023)
- End of phase 2 meeting with FDA (Q1 2023) to enable commencement of phase 3 trial
- Appointment of CRO to manage phase 3 trials in the US and Australia (Q1 2023)
- Initiation of stability programs for Glucoprime<sup>®</sup> API and finished gel (Q4 2022/Q1 2023)
- Establishment of a collaboration with an Australian research group to elucidate further information around the mode of action to support the FDA application

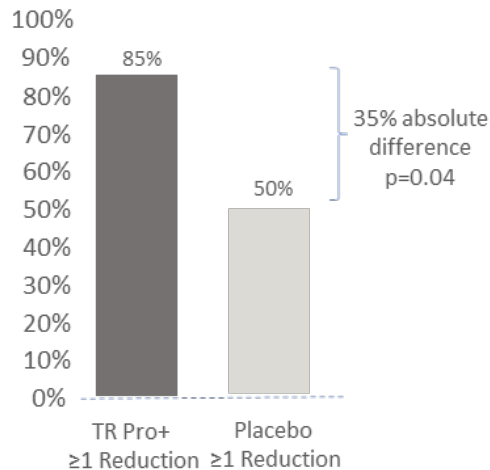
# Clinical Study – laser skin resurfacing (2020)

## Phase 2B: Study to Evaluate a Novel Macrophage Activating Gel for Optimization of Healing and Skin Quality After CO<sub>2</sub> Laser Resurfacing of the Chest (TR987-2016-FullChest, USA, 2020).

To evaluate the efficacy of TR Pro+™ active gel compared to placebo in accelerating wound healing following fractionated CO<sub>2</sub> laser resurfacing of the chest for treating wrinkles and photo-damaged skin.

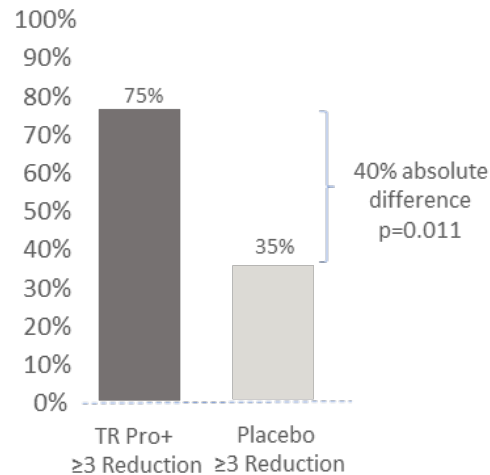
### Wrinkling

Proportion of patients with at least 33% improvement at 28 days



### Elastosis

Proportion of patients with at least 33% improvement at 28 days



Day 1



Day 28

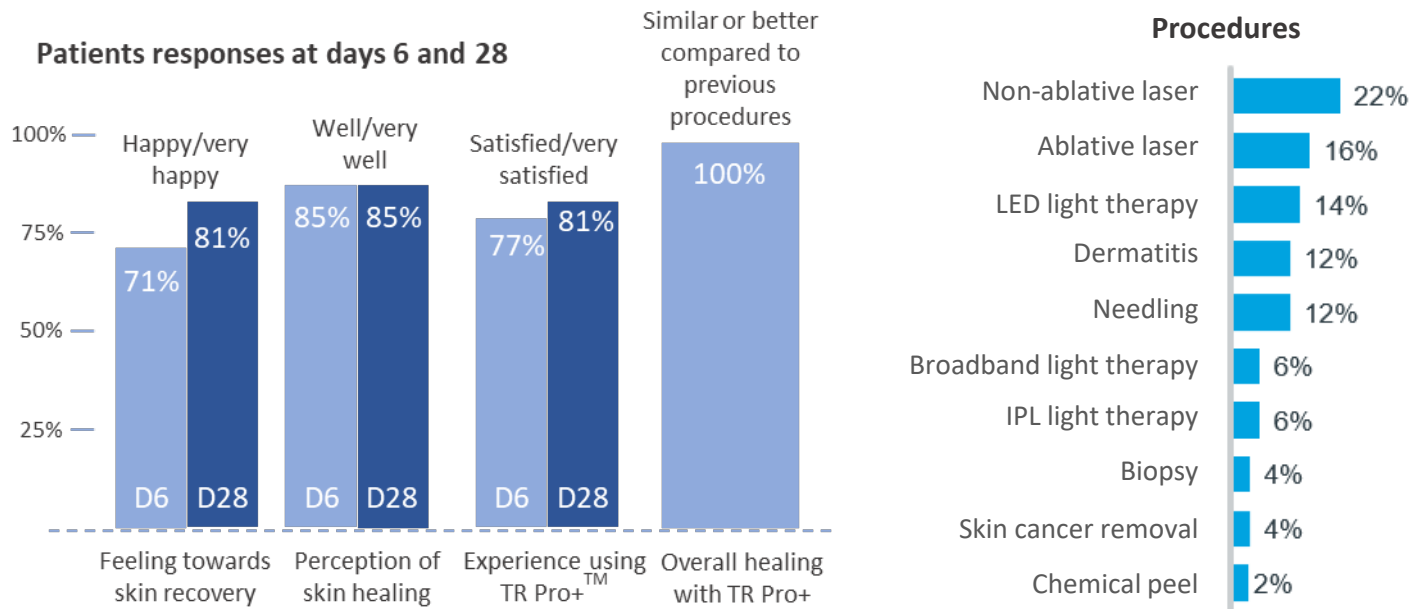


(Typical patient response following 5-day treatment treatment with TR Pro+)

*TR Pro+™ demonstrated a significant improvement in skin quality, as assessed by wrinkling and elastosis, after 28 days*

# Real-world evidence study (2022)

A real-world evidence study<sup>(1)</sup> was done with 12 dermatology clinics in Australia in patients (n=48) who had undergone a range of cosmetic and medical procedures. The program was run independently and patients provided anonymous feedback at day 6 and day 28 following the procedures.



Healthcare professionals who consider TR Pro+ appealing<sup>(1)</sup>

86%

Dermatologists interested in learning more about the phase 2 laser skin resurfacing trial<sup>(2)</sup>

84%

# Milestone and initiatives over the short-to-medium term – TR Pro+™ for the aftercare of cosmetic and medical procedures

## Completed

- Comprehensive market research program undertaken with various healthcare professional specialists
- Real-world evidence study (n=48) across 12 dermatology clinics in Australia
- Insight generation and lead development through interactions at dermatology, plastic surgery, wound, tattoo and beauty conferences
- Publication of the phase 2 laser skin resurfacing trial in the peer reviewed journal, Dermatologic Surgery (expected Q4 2022)
- Appointment of an Australian-based CMO to produce finished gel TR Pro+™ in preparation for launch

## Planned

- Commercial launch of TR Pro+™ to dermatology and beauty clinics (Q1 2023)
- Production of an initial batch of 10g tubes and 3g sample sachets (Q1 2023)
- File TGA application to include beta-glucans as an accepted active ingredient (Q3 2023) for Listed (AustL) therapeutic goods
- Continue to explore opportunities for use of Glucoprime® in other indications (eg: tattoo removal) (2023)
- Investigate opportunities for distribution of TR Pro+™ in global markets (2023)

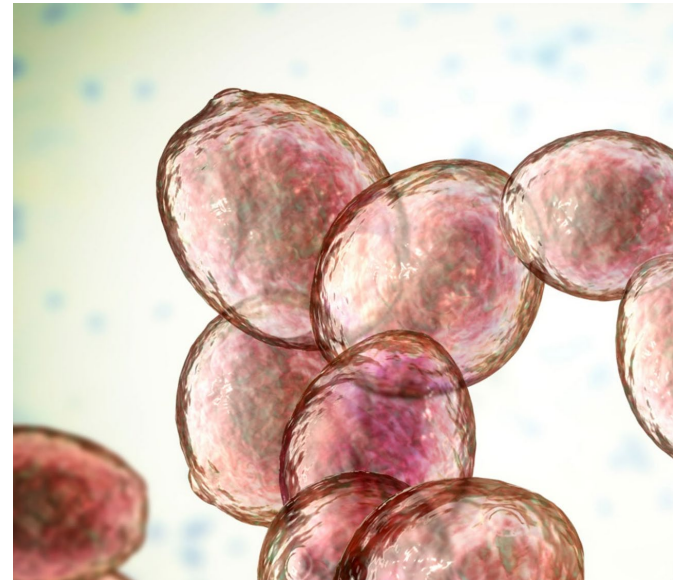
# Milestone and initiatives over the short-to-medium term – additional developments

## Completed

- Two patents accepted which each afford 21 years of protection:
  - claims to the method of manufacture of the unique isolated biological polysaccharide
  - claims to the use on any skin condition including burns, chronic wounds, surgical wounds, pressure ulcers and any post procedure wound whether surgical or cosmetic
- Work undertaken to examine opportunities relevant to the Government R&D tax initiative
- Assessment of IT and Quality requirements undertaken with actions implemented as required.

## Planned

- A third patent application is being prepared to cover the structure of the beta glucan molecule (ie: Glucoprime®)
- Trademark applications are ongoing for US, UK, Australia and Canada



# Corporate overview

## Key financial details (8 November 2022)

Cash at bank 30 September 2022	\$24.385million
Market capitalisation	\$17.5million
Share price (as at 8 November 2022)	\$0.29
Ordinary shares on issue	60,464,843
ASX listing	18 November 2021

## Major Shareholders

	# of shares	%
SELENE HOLDINGS LTD	5,955,980	9.85%
SPARK CAPITAL PTY LIMITED AND TONY CHARARA	4,895,336	7.98%
CREIGHT INVESTMENTS PTY LTD, PETER SCUTT AND NADIA JACOB	4,022,260	6.65%

## Share price

