TISSUE THERAPIES

# ASX ANNOUNCEMENT
## 23 November 2015

## Investor Update

**Brisbane, Australia, 23 November 2015:** Tissue Therapies (ASX:TIS), a biomedical technology company developing effective treatments for wound healing, today releases its updated investor presentation. The Board of TIS has elected to disseminate this presentation as part of articulating the company's go-forward strategy over the coming months. Several matters in this presentation will also be discussed during the Annual General Meeting (AGM) on the 25th of November.

Highlights of the presentation:

- The company has made significant and measurable progress in its transition from a device to a biopharmaceutical (biologic) regulatory pathway.
- The company has formally engaged with the US Food and Drug Administration (FDA) and has received clear guidance on how to proceed with Phase II clinical development.
- The biopharmaceutical pathway for TIS' lead product creates a far larger commercial opportunity for the company.
- Consistent and appropriate for a biologics company, TIS has developed a pipeline and commercial strategy that will maximise the value of the company's considerable intellectual property portfolio in the field of targeted growth factors for wound care.
- TIS intends to raise a further AUD $15m to reach the next major value inflection for the company. These funds will be primarily used to complete a significant US-based multi-centre Phase II program for the lead product (VitroGro®), and manufacturing process development for Phase III studies.

This presentation reflects a substantial corporate restructuring effort and the establishment of a clear strategic plan that will become increasingly visible to shareholders over the coming months.

- ENDS -

**For more information**


| | |
|---|---|
| Dr Christian P. Behrenbruch, Ph.D<br>Executive Director<br>Tissue Therapies Limited<br>Tel: +61 7 3334 3900<br>Email: c.behrenbruch@tissuetherapies.com<br><br>Dr Cherrell Hirst, Chairman<br>Tissue Therapies Limited<br>Cherrell@hirst.com<br><br>Nigel Johnson, CEO<br>Tissue Therapies Limited<br>Tel: +61 7 3334 3900<br>Email: n.johnson@tissuetherapies.com | Kyahn Williamson<br>Buchan Consulting<br>Tel: +61 (3) 9866 4722<br>Email: kwilliamson@buchanwe.com.au |

**About Tissue Therapies Limited**

Tissue Therapies Limited is a biomedical technology company that is developing significantly more effective treatments for acute and chronic wound healing applications, including chronic skin ulcers and burns.

Tissue Therapies Limited is commercialising VitroGro® ECM, a technology created by cell biology, tissue engineering and protein engineering experts at the Institute of Health and Biomedical Innovation at the Queensland University of Technology. The company owns various patent families related to wound healing and other therapeutic uses. Tissue Therapies Limited's shares are traded on the Australia, Berlin and Frankfurt stock exchanges. For more information, please visit www.tissuetherapies.com.

TISSUE THERAPIES

# Investor Presentation

November 2015

# Notices

- The information contained in the presentation is not intended to be an offer for subscription, invitation or recommendation with respect to shares in any jurisdiction.
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- There can be no assurance or guarantee that actual outcomes will not differ materially from these statements.
- The photographs of clinical subjects used in this presentation are illustrative of medical conditions associated with potential applications of VitroGro®. Actual clinical results may vary from those shown.
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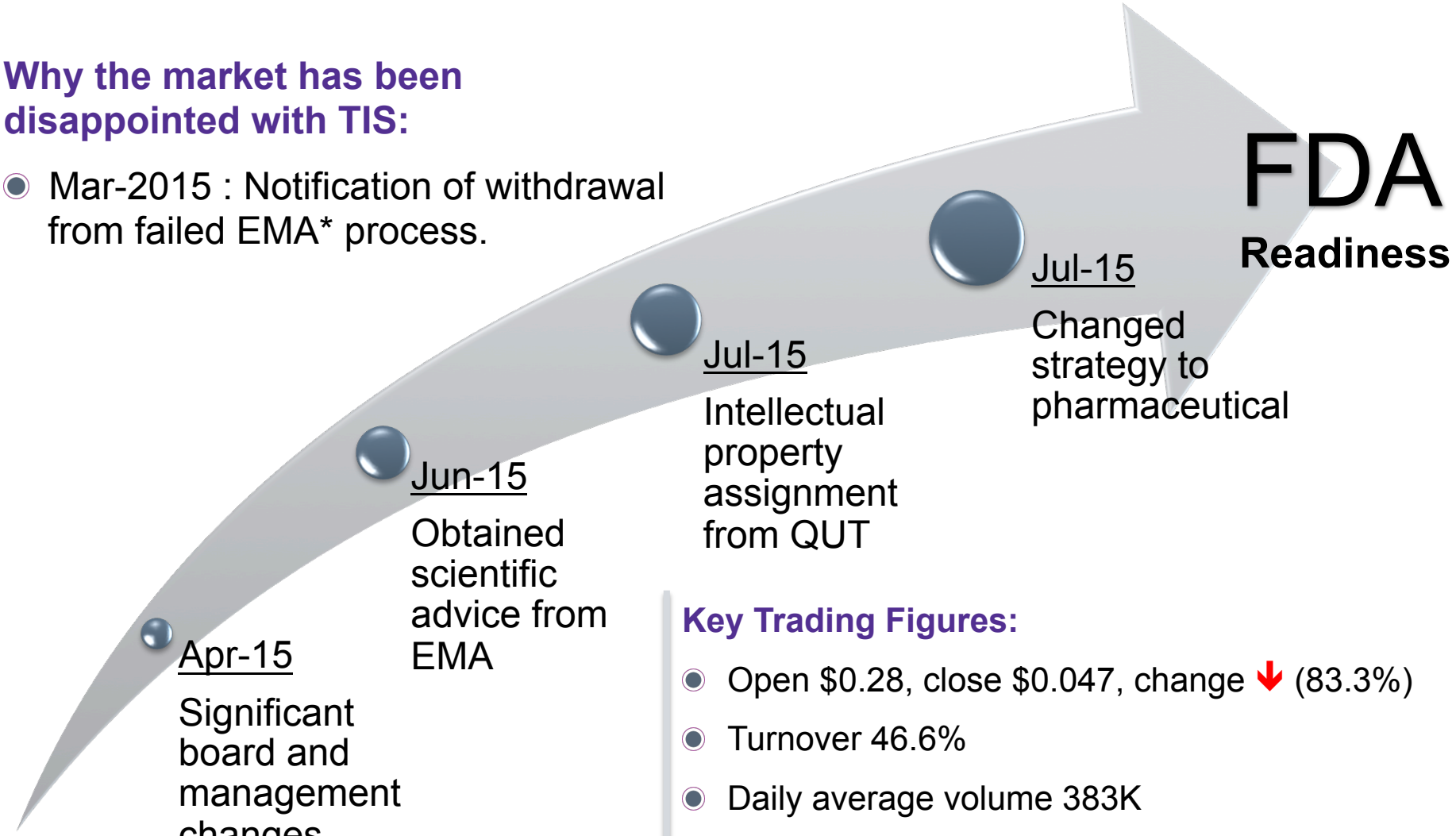
# A Transformative 12 Months

## Why the market has been disappointed with TIS:

- Mar-2015 : Notification of withdrawal from failed EMA* process.




## Key Trading Figures:

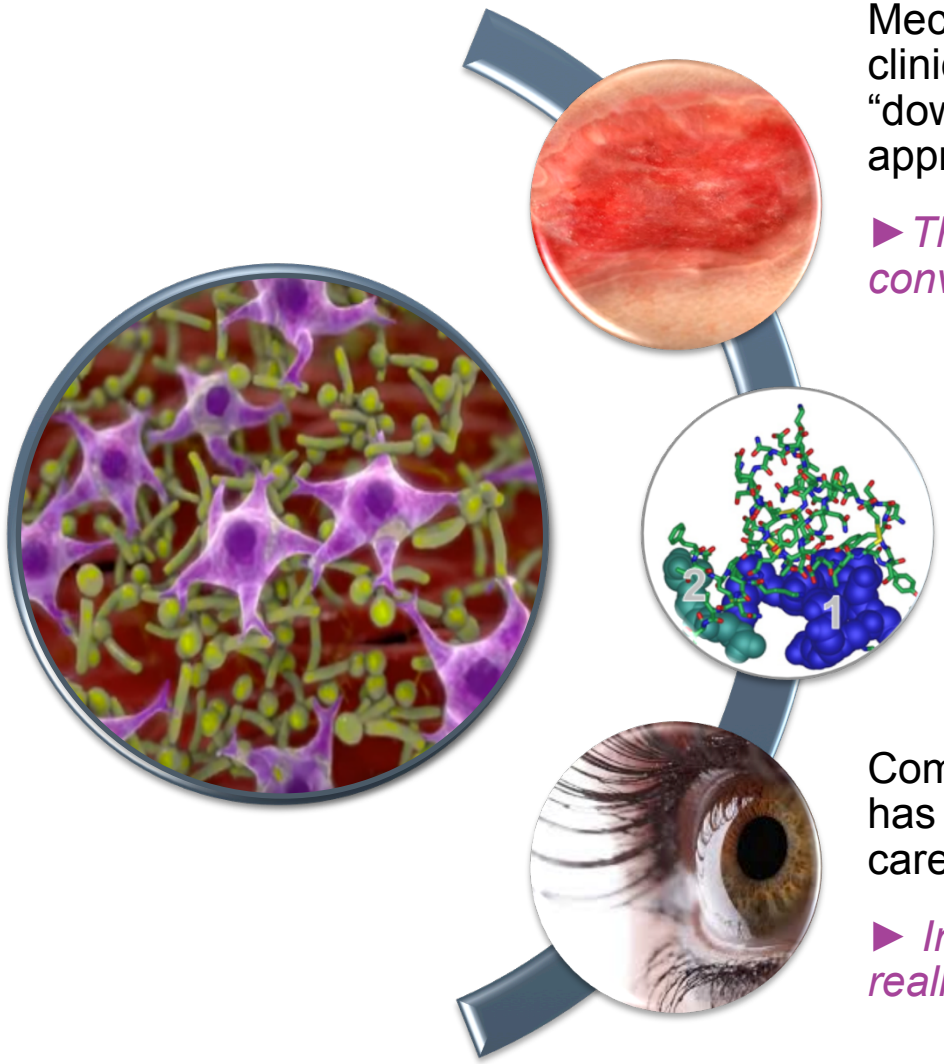
- Open $0.28, close $0.047, change ↓ (83.3%)
- Turnover 46.6%
- Daily average volume 383K
- 31 Oct 2015, cash $3.3M (+$426K tax asset)
- 31 Oct 2015, 302.88M shares, market capitalization $14.3M

*European Medicines Agency

# Major Challenges – and Major Opportunities

| Challenge | Opportunity |
| --- | --- |
| Device route not proven to be feasible for the company. | Pharmaceutical route enables much larger market opportunity / superior price point. |
| Clinical development rolled-back to Phase II. | Company will have necessary efficacy signals to engage partners in a higher-value way. |
| Transition from EMA to an FDA-focused process. | A larger, more homogeneous market opportunity for the company. |
| Additional manufacturing requirements to prepare for Phase III. | Existing scale-up experience can be largely “re-used”, better product control = lower COGS, stability, etc. |

# Powerful Technology : Historically Under-Articulated




Mechanism of action is well understood and clinically validated yet was historically "downplayed" due to decision to pursue device approval route.

► *This considerably limited sophisticated conversations with potential partners.*

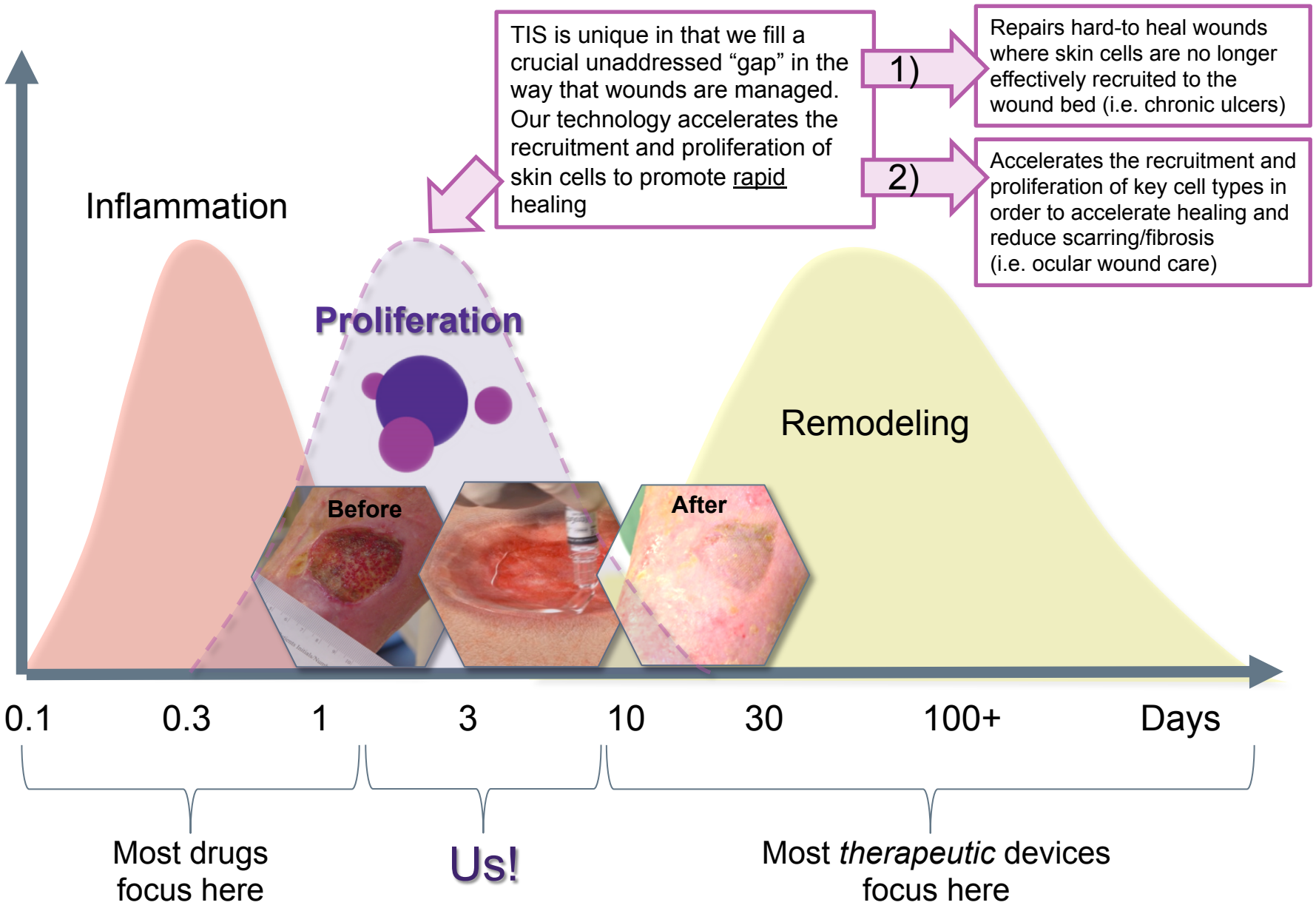
Company's technology platform consists of multiple potent constructs with robust international IP protection.

► *We see the potential for a pipeline of relevant wound care products with distinct and commercially significant application areas.*

Company's fundamental wound care technology has broad application beyond chronic wound care.

► *Including significant new markets that are only really starting to take shape*

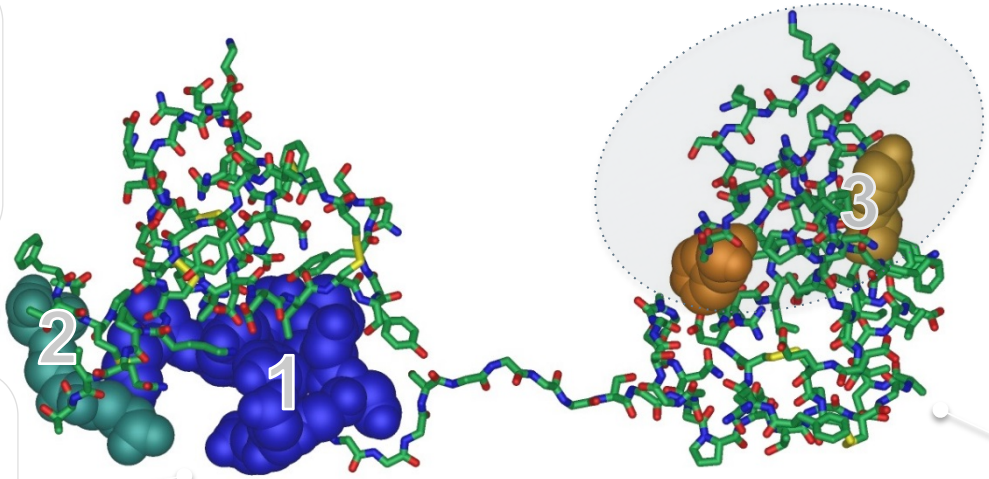
# How Wounds Heal : And Why We Are Unique



# Our Technology : Advanced Wound Care Biologics

**Cell attachment site provides a scaffold for cells to move into the wound bed.**

**Collagen binding site for rapid adsorption of product onto wound bed.**




**Vitronectin** (truncated 1-64) | **Linker** | **FACTOR**

**FACTOR (i.e. IGF-I)**

**Promotes migration and repopulation of skin cells.**

- Advanced biologic pharmaceutical products for wound care using a targeted growth factor strategy.
- Our products promote healing by normalising the wound bed and stimulating the formation of new skin (recruits keratinocytes and fibroblasts).
- Proven potency and safety.
- A platform technology with multiple major market opportunities.

# Intellectual Property Overview

- Potential to be the first approved biologic combining an extra-cellular matrix protein with a growth factor – no other company is developing proteins that comprise components of vitronectin and growth factors such as IGF-1 and EGF.
- Our IP portfolio consists of 5 patent families that clearly cover our core products and platform technologies.

**Durable**

- Key asset has well defined claim scope
- Portfolio covers both “next generation” products and practical alternatives
- Biologic intrinsically increases barrier to “generic” use

**Exclusive**

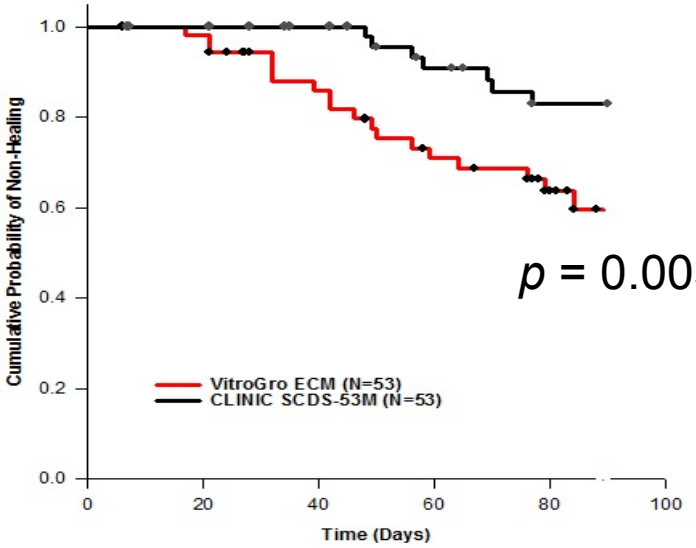
- Lifespan out to 2024 for lead product
- Clear strategies to further extend IP life
- New constructs have patent life out to 2031
- Patent and non-patent exclusivity extensions expected

**Granted**

- Major jurisdictions protected, global reach
- Broad indication support
- Unequivocal asset ownership

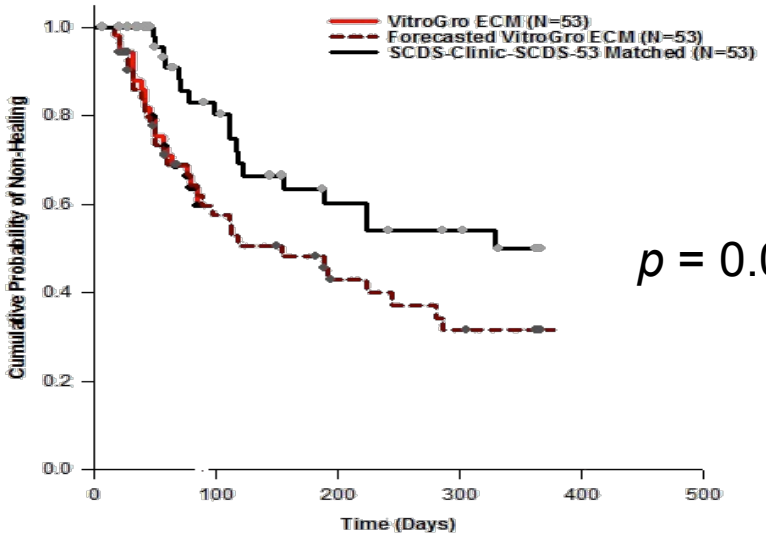
# Clinical Experience to Date

- Evaluated in 53 patients to date. Wound care trials are notoriously difficult, but we have shown clear efficacy, indicating that VF-001* delivers significant clinical benefit to a very tough patient population
- VF-001 plus standard care (SC) compared to SC only - Day 90:
  - Cross-trial data - 1:1 propensity score matched from raw data on major prognostic factors for healing (ulcer area and duration) and age. Comparator is large published SC data set on chronic venous leg ulcers in the UK




*p* = 0.003

| Group | Mean days to healing [95% Confidence Interval] |
|---|---|
| VitroGro® ECM plus SC | 73.1 [66.4 – 79.9] |
| SC (weekly visits to clinic) | 85.2 [81.4 – 88.9] |




*p* = 0.025

| Group | Mean days to healing [95% Confidence Interval] |
|---|---|
| VitroGro® ECM plus SC forecasted | 198.9 [152.9 - 244.9] |
| SC (weekly visits to clinic) | 249.9 [207.3 – 292.4] |

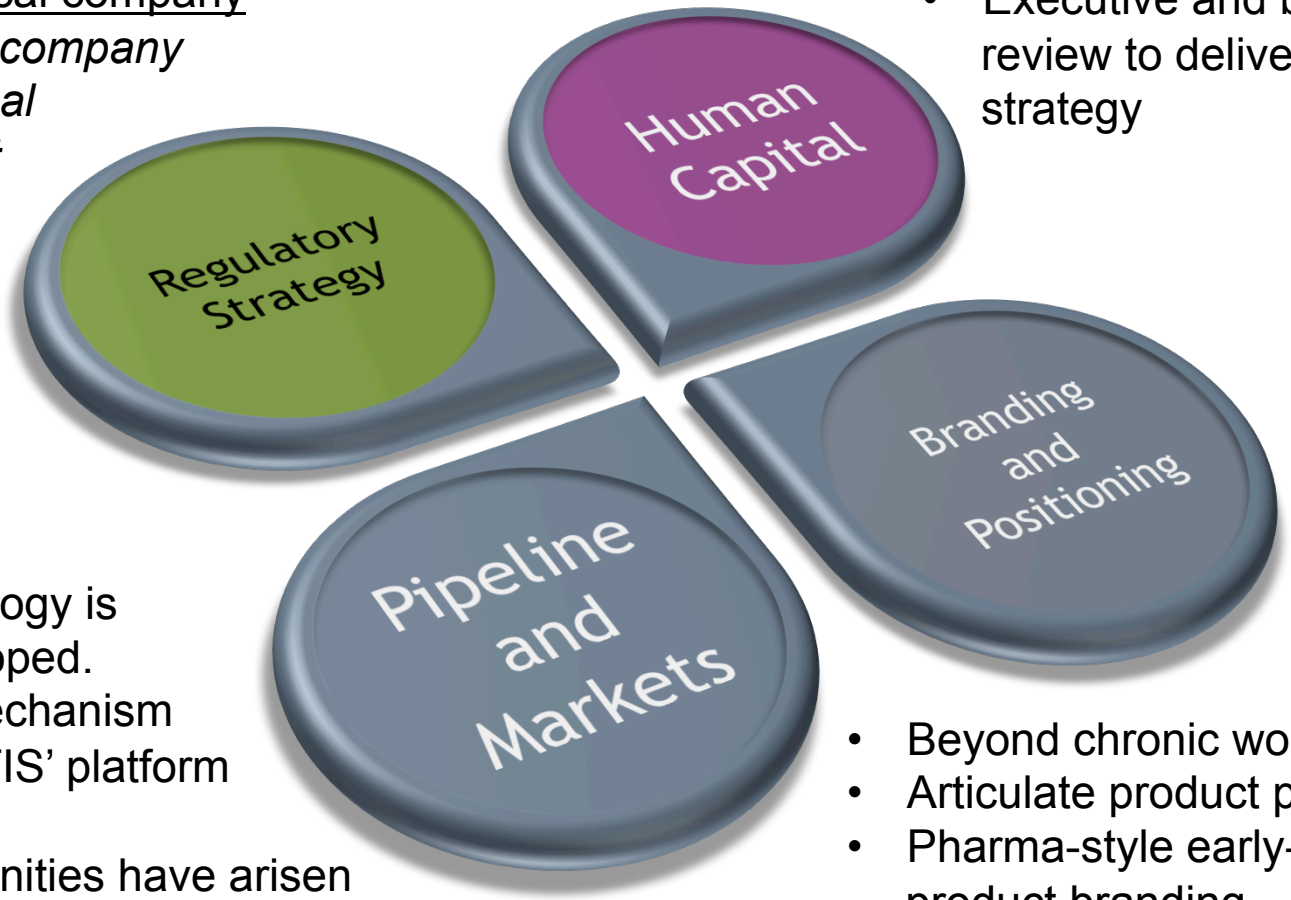
**Demonstrably faster healing trajectory with VF-001**

** Formerly communicated as VitroGro®*

# Transformation Strategy : Four Parts

- US/FDA-centric strategy
- Product development as a pharmaceutical company *not a device company*
- *Robust clinical development*

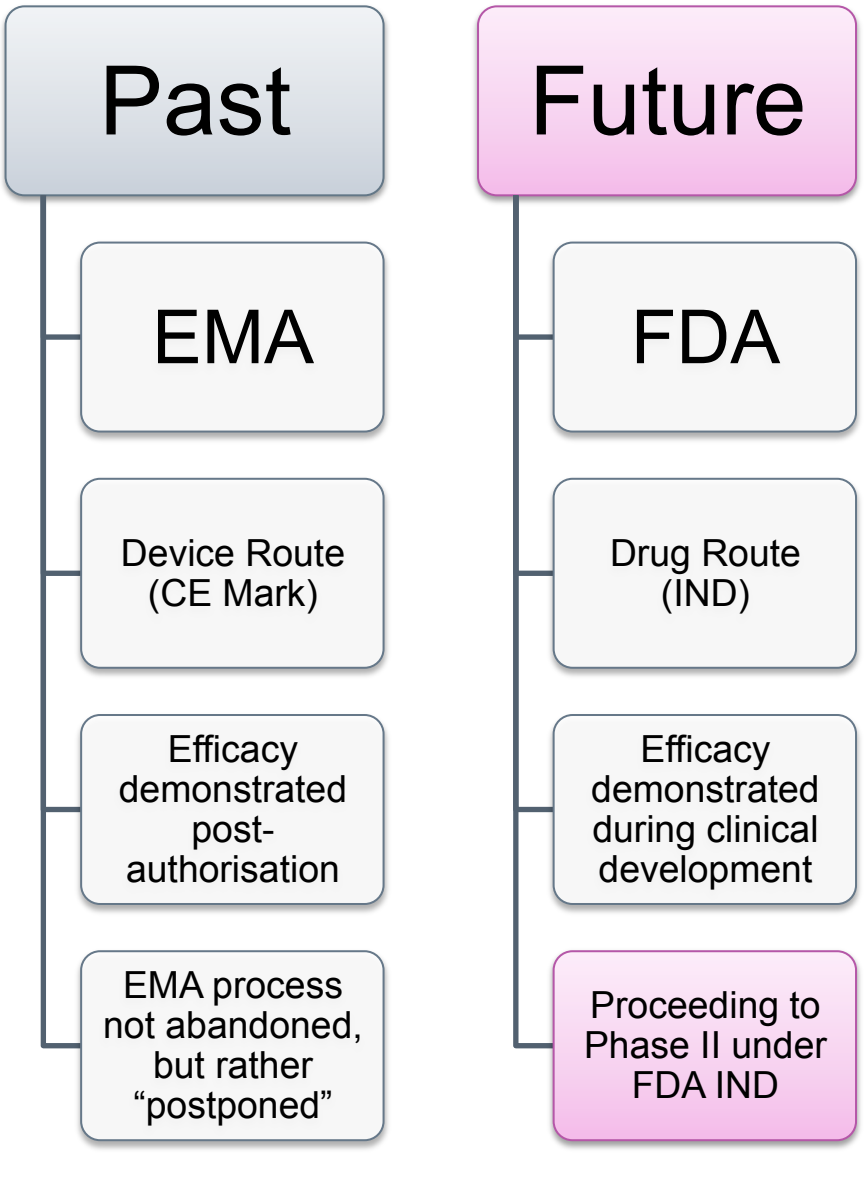
- US clinical and executive recruitment a priority
- Executive and board skills review to deliver our new strategy




- Core technology is under-developed.
- Focus on mechanism of action of TIS' platform technology
- New opportunities have arisen that have significant valuation impact

- Beyond chronic wound care
- Articulate product potency
- Pharma-style early-stage product branding
- Overhaul of company brand
- Improving communication

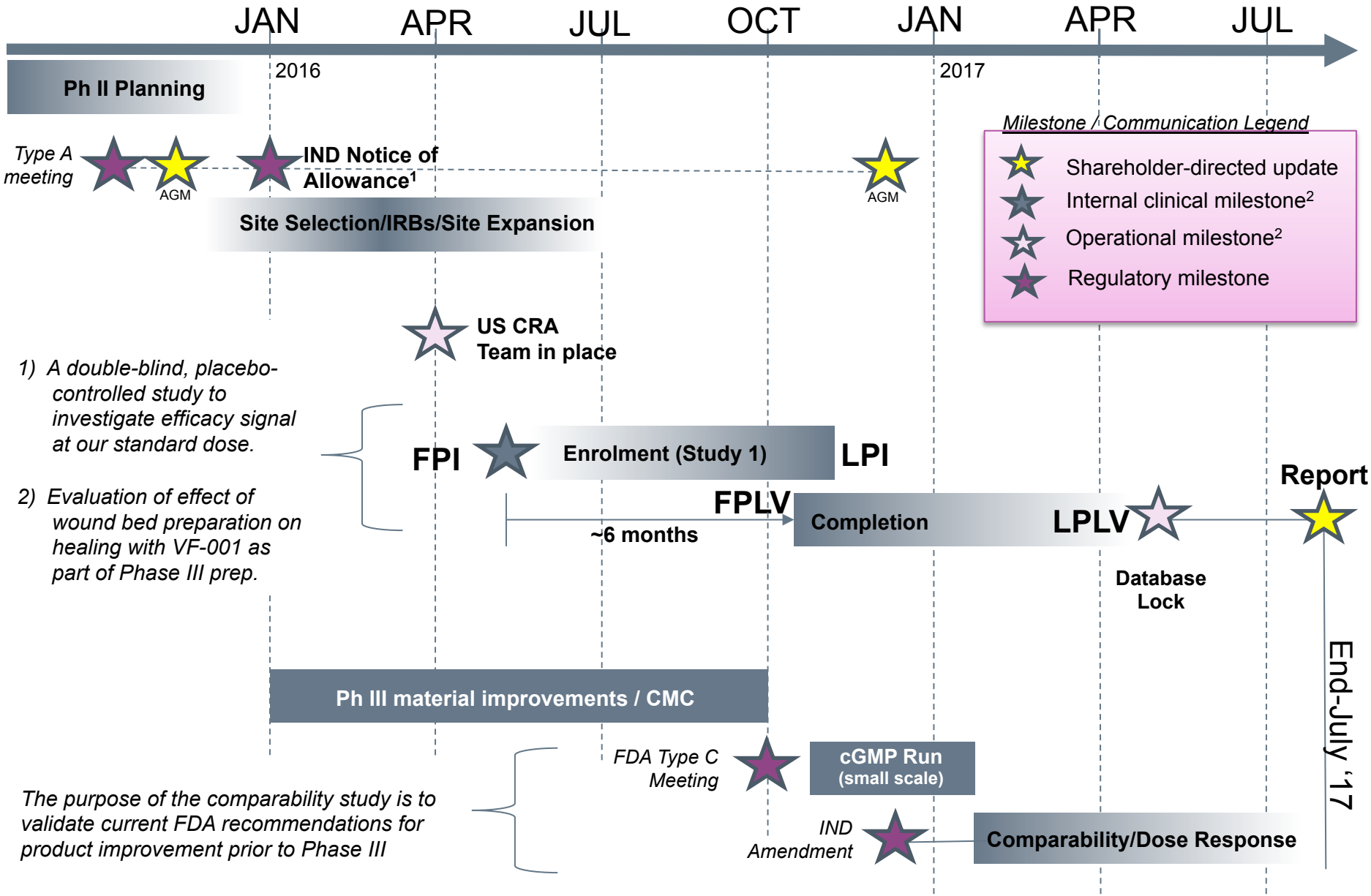
# Regulatory Game Plan




**Significant team effort to transition from device to IND pathway.**

- ✓ Sophisticated and detailed gap analysis in collaboration with a top-tier CRO.
- ✓ Manufacturing / product characterisation taken to a superior level.
- ✓ Effective re-engagement with the FDA (Type A meeting), with planned ongoing engagement.
- ✓ Clinical plan well-defined for a multi-centre Phase II US clinical trial that will pave the way to Phase III.
- • ***Clear guidance from the FDA on characterisation requirements for Phase III.***

# High-Level Clinical Plan (Lead Program)



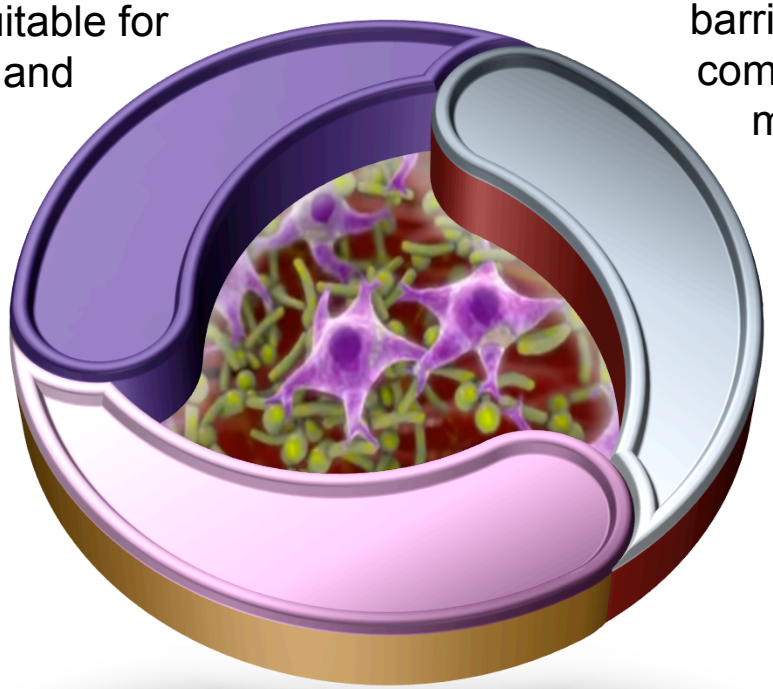

[1]Based on management's estimate only, [2]May or may not be reported, FPI = "first patient in", LPI = "last patient in", FPLV = "first patient, last visit", LPLV = "last patient, last visit"

# Product Pipeline Strategy

**Lead Product:** Majority investment focus in lead product. Demonstrate efficacy in a manner suitable for both driving partnering and Phase III decision - making.

*Advanced wound care: $5Bn global market*

## VF-001*



**New Product:** Formulation development of a viscous form of lead product (incl. barrier formulations) to enable the company to start to evaluate burn market opportunities, including possibly mucosal burns.

*Advanced burn products: $2Bn global market*

## VF-002

**New Product**: Leverage core IP to further develop a 2nd-generation product for ocular wound care. Growth in the number of eye surgical procedures, use of glaucoma stents, etc. has created a significant demand for advanced wound care products to accelerate healing, reduce fibrosis and minimise negative effects of ocular surgery. We have **two drug candidates** that are potentially first-in-class.

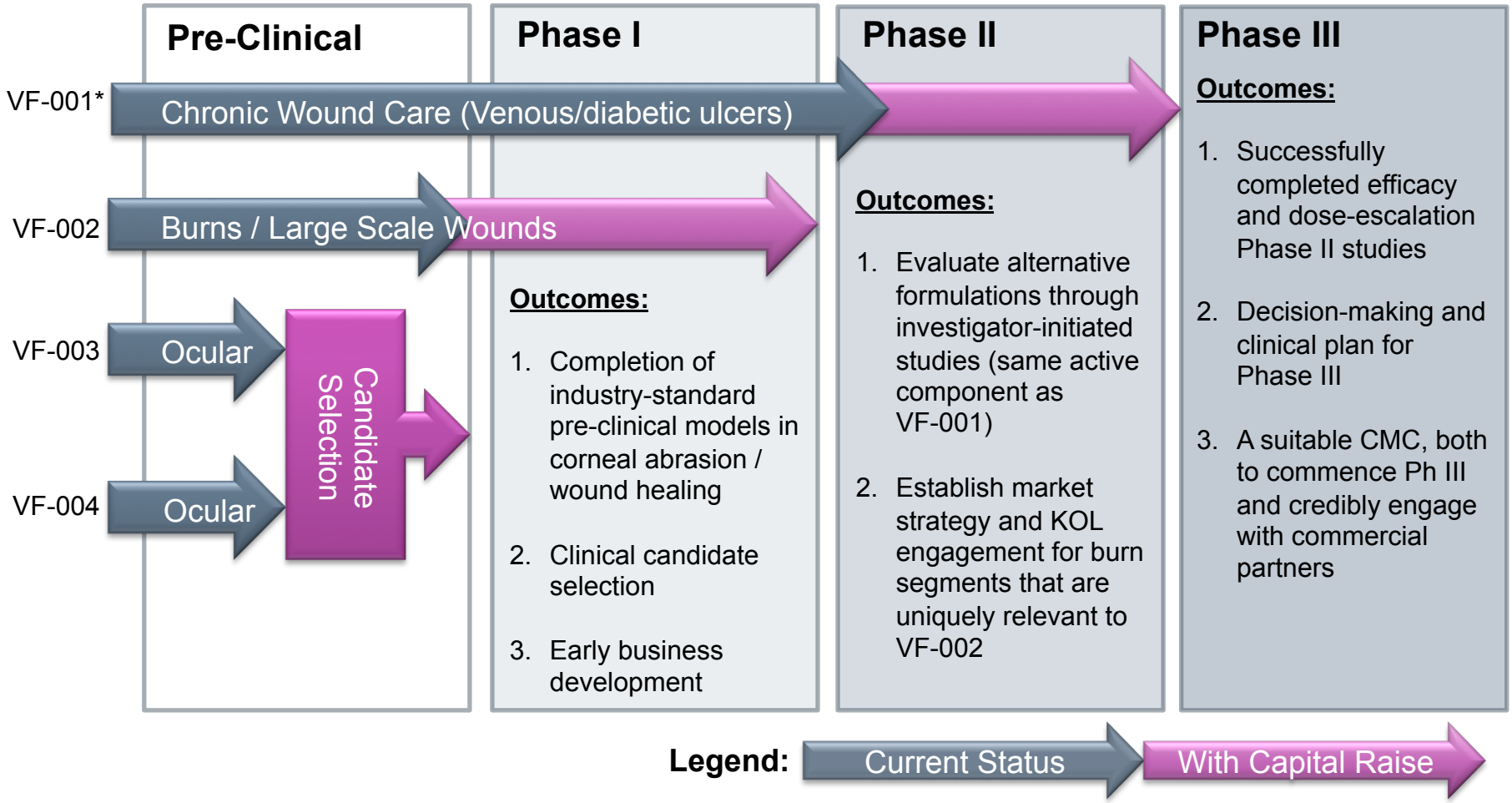
*Post-surgical eye-care $1.5Bn global market*

## VF-003
## VF-004

** Formerly communicated as VitroGro®*

# Pipeline Management : Next 18 Months

- 90% of investment will focus on the lead program (VF-001*).
- Strategic re-evaluation of the key application areas of our technology.
- We plan to cost-effectively explore larger-area wounds / burns through investigator-initiated studies with a more viscous/barrier-oriented formulation (instead of irrigation, appropriate for chronic ulcers).
- Accomplish clinical candidate selection for an ocular wound care product targeted at post-surgical healing.




** Formerly communicated as VitroGro®, KOL = Key Opinion Leader*

# Business Development

## Lead Program (VF-001):

- Have already re-engaged with major wound-care players
  - Goal : to provide a progress update
  - Eliminate perceptions of “stasis”, introduce new leadership
- New regulatory strategy means that the optimal time for partnership discussions are at the end of Phase II

## Ocular Program (VF-003/4):

- Already interest
- Major unmet clinical need and an well-identified market opportunity by the major ophthalmology players. Very low level of competition.

***Significant business development opportunities exist for our pipeline but excellent clinical data at the end of Phase II will maximise the company’s value in partnership discussions.***

# Human Capital

## Chief Executive

- Nigel Johnson has been appointed CEO with board support.
- Team is pared back, but focused and energised.
- Team has appropriate skillset for current activities.

## US Subsidiary

- Will be established in January to facilitate clinical / site management hires for multi-centre Phase II study(s).
- Paves the way to recruit US executive talent in the future.

## Board Composition

- Christian Behrenbruch recruited as an Exec Director, provides additional support to N. Johnson.
- Iain Ross / Mel Bridges / Roger Clarke (NEDs) – retired.
- Continuous review of board skill set as a function of development stage.

# Branding and Positioning


## Company Name

- Company has commenced a re-branding exercise in order to support positioning as a pharmaceutical company.
- Goals : image refresh and stronger brand differentiation.
- Process : Initially operate under a new registered / trademarked *business name*, future shareholder approval if company name changed.
- Keep short-term costs minimal.

## Product

- Consistent with industry best practice, the company will utilise experimental product codes until Phase III (VF-001, 2, 3…).
- V denotes “vitronectin”. F denotes “factor”
- Avoid ‘failed’ brand risk, simplify FDA documentation.

## Shareholder Communication

- Clarity and transparency.
- Renewed commitment to providing meaningful and timely updates.

# Capital Requirements & Use of Proceeds

***AUD $15m, three main investment areas:***

1. Multi-centre Phase II study : **$6.5 - $7m.**
   - Larger number of sites for rapid recruitment (typically 1.2 patients / month / site).
   - US-centric, readiness / site qualification for Phase III a key consideration.

2. Manufacturing / CMC : **$3m.**
   - Further develop bioprocess to meet needs of Phase III and beyond as a pharmaceutical. Includes comparability studies.
   - Will not include Phase III manufacturing scale-up.

3. Indication / pipeline expansion : **$1.2m.**
   - Further develop core technology into new indication areas, future value capture.

✓ + Basic working capital – keeping basic burn as low as possible.

✓ Effective CMO/CRO usage to keep costs / team size down.

✓ Target runway of 18-24 months.

# Concluding Remarks

**Key Messages:**

- **Company has had a challenging 12 months. Major transition from a device to a biologic drug strategy.**
- **Responded responsibly via major management and board restructuring.**
- **Company has the opportunity to articulate and develop its technology like never before, is back on track with regulatory and clinical strategy.**
- **Shock has been bad for the short-term share price, but will ultimately create a far more valuable company.**

- Seeking $15m in capital to get lead program through Phase II and to realise the potential of the company's wound healing platform, including some preliminary work around indication expansion.
- Clear use of proceeds, primarily focused on lead program.
- Significant commercial and clinical value inflections in the next 18 months.
- Company is totally focused on becoming a comprehensive wound-care leader.
- Biologic/IND pathway significantly increases the market opportunity for the company