



TISSUE THERAPIES

21 October 2009

Dear Shareholder

Share Purchase Plan

By the end of October 2009, the Australian and Canadian human trials testing VitroGro® for the treatment of diabetic and venous ulcers are expected to produce the data necessary for term sheet negotiations with potential commercial partners for the world wide launch of new VitroGro® wound healing products planned for the second half of calendar 2011.

On behalf of the directors of Tissue Therapies Limited (**Tissue Therapies**), I am pleased to invite Eligible Shareholders (see below) to participate in the Tissue Therapies Share Purchase Plan (**SPP**) which will provide the opportunity to purchase up to \$15,000 of Tissue Therapies ordinary shares without incurring brokerage or transaction costs.

Tissue Therapies Placement

A separate raising exercise was recently undertaken by Tissue Therapies, namely an offer to Institutional and Sophisticated Investors under a private placement which was announced on 19 October 2009 (**Placement**). The issue price of the shares offered under the SPP will be calculated as the lesser of \$0.15 per share (the same price as was offered under the placement) or 80% of the average closing price on the last 5 trading days prior to the date of issue of shares under the SPP.

SPP Raising to Eligible Shareholders

The SPP will be available to persons who are registered as shareholders at 7:00pm AEDT on 29 October 2009 (**Record Date**), and having a registered address in Australia or New Zealand (**Eligible Shareholders**). Instructions on how to apply for a share allocation and key terms of the offer are contained in the enclosed SPP documentation.

The SPP is intended to provide existing shareholders with the opportunity to purchase further shares in Tissue Therapies at the lesser of \$0.15 per share or 80% of the average closing price on the last 5 trading days prior to the date of issue of shares under the SPP.

This offer is conducted under ASIC Class Order 09/425 and the issue and allotment of shares under the SPP is subject to Tissue Therapies obtaining shareholder approval in accordance with the requirements of ASX Listing Rules 7.1 and 10.11, at the Annual General Meeting of Tissue Therapies to be held on 27 November 2009.

Use of funds

The funds raised by the SPP will be used primarily for working capital to:

- completion of current clinical trials;
- scale up manufacture of VitroGro® to GMP (Good Manufacturing Practice) compliance standard for sale; and
- completion of negotiations with a partner to enable commercialisation of the Company's VitroGro® technology.

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The SPP is entirely voluntary and will enable Eligible Shareholders, regardless of the number of shares they hold in Tissue Therapies on the Record Date, to subscribe for a maximum of 100,000 ordinary shares at \$0.15 per share, being a maximum subscription of \$15,000 per Eligible Shareholder, subject to the final share price calculation summarised above. Shareholders can subscribe for a minimum parcel of \$1,200 (or 8,000 Shares, assuming the final price is \$0.15 per share) and elect for additional shares in multiples of \$120 thereafter.

A copy of the SPP booklet and rules is **attached**. This document is important and requires your immediate attention.

Important dates:

Announcement Date	21 October 2009	Share Purchase Plan announced to the market (subject to shareholder approval)
Record Date	29 October 2009 (7.00pm AEDT)	Date for determining Eligible Shareholders
Opening Date	3 November 2009	Share Purchase Plan opens
Annual General Meeting	27 November 2009	Annual General Meeting of Tissue Therapies to obtain shareholder approval for the SPP
Closing Date	4 December 2009	Share Purchase Plan closes at 6.00pm AEDT on this date
Allotment Date	11 December 2009	If shareholder approval is obtained, Shares to be issued under Share Purchase Plan are allotted
Dispatch Date	18 December 2009	Confirmation of transaction dispatched to shareholders
Quotation Date	22 December 2009	At which time Shares are expected to be traded on ASX

The above timetable may be amended at the discretion of the Company, subject to Corporations Act or ASX Listing Rule requirements (if any).

Tissue Therapies 2009 Directors Report and Financial Statements for 30 June 2009 were lodged with ASX on 4 August 2009 are available through the Company's website and the ASX website at www.asx.com.au.

Share Purchase Plans

The new shares issued under the SPP will rank equally with the ordinary shares currently on issue.

Applications

Applications can be made by posting the attached acceptance form together with payment, or utilising the BPay® facility, before the offer closes, at 6:00pm AEDT on 4 December 2009.

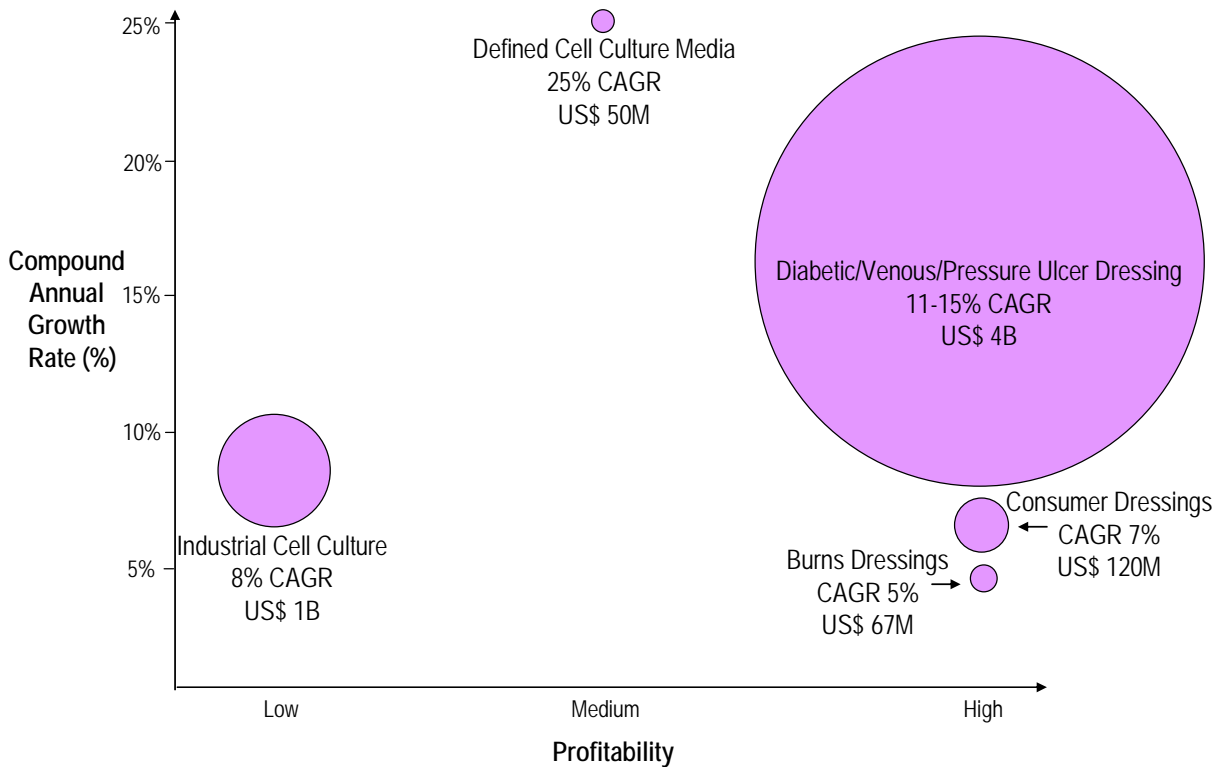
Applications that are to be posted must be addressed to:

Tissue Therapies Limited
C/- Link Market Services Limited
Locked Bag 3415
BRISBANE QLD 4001

The offer is managed by RBS Morgans Limited ABN 49 010 669 726. A handling fee of 1.5% of funds raised (plus GST) will be payable by Tissue Therapies for applications lodged by eligible members of ASX Limited.

For further information, contact the Tissue Therapies Limited SPP Offer Information Line on 1300 794 935 if calling within Australia or +61 2 8280 7911 if calling from outside Australia.

Market Segment Opportunity Estimates



Highlights

It is anticipated that positive human clinical trial data due at the end of October 2009 will be the catalyst for formal partnership negotiations with a short list of already identified international wound and healthcare companies.

Successful classification of VitroGro® for wound treatment as a device (rather than a drug) substantially reduces the time and costs of clinical trial and regulatory approval.

Device classification also allows future sales through a far broader range of outlets and partners than would be possible if VitroGro® were classified as a pharmaceutical.

1. Lead product VitroGro® addresses a significant and growing unmet medical need

- VitroGro® has been designed to provide simple, effective and affordable new wound healing dressings for diabetic, venous and pressure ulcers. This is backed by ten years of substantial laboratory and preclinical data, including more than 60 publications in peer-reviewed, scientific journals.
- Current treatments for diabetic, venous and pressure ulcers are costly and are only moderately effective. These include compression dressings, moist wound healing products, vacuum dressings and antimicrobial dressings to limit infection. Complete healing rates for diabetic, venous and pressure ulcers remain at approximately 25 – 50% following up to 20 weeks of treatment. (9, 10) Our targets are to increase the incidence of complete healing and substantially reduce the treatment time with VitroGro®.
- Worldwide, it is estimated that patients suffering diabetic, venous and pressure ulcers spent USD\$4 billion in 2007 on wound dressings, with a compound annual growth rate of 11% – 15%. (1, 2) World market growth is being driven by aging population, increased incidence of diabetes and increasing affordability of health care in developing countries. (1, 2)

- Up to 70% of all lower limb amputations in the world are related to diabetic ulcers. During 2007, a lower limb was lost to diabetic ulcers every 30 seconds. This represents more than 1 million amputations globally each year. (5)

2. Clinical Results

Two clinical trials are being used to evaluate VitroGro® for the treatment of chronic skin ulcers.

Venous Ulcers: Vascular Research Laboratory, Fremantle Hospital, Australia, Professor Michael Stacey. Excellent results for 8 patients have already been reported and announced. A further 24 patients are to be recruited into an extension of this study to provide additional data during commercial partner negotiations.

The final report of the Australian clinical trial of 8 venous ulcer patients treated with VitroGro® twice a week showed a **reduction in median wound area from 9.2 to 5.2 square centimetres in 24 days and 6 of these patients healed completely within weeks of completing the study.**

Additional key findings of this study were:

- **Reduction in wound area was highly statistically significant $p < 0.01$**
- **VitroGro® is safe and well tolerated**

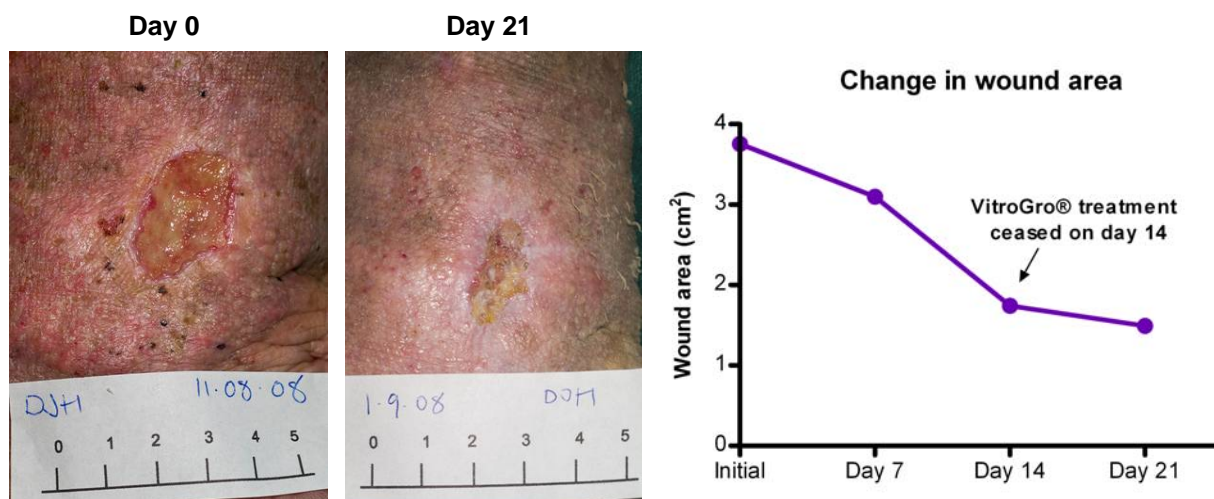
Five females and three males were enrolled in this human trial, with median age of 74 years. The median duration of the venous ulcers treated was 6 months, with a range of 1 to 29 months. The treated ulcers ranged in size from 2.2 to 19.0 square centimetres, with a median size of 9.2 square centimetres.

Four of the eight subjects commenced compression therapy at the start of the study, while the other four had been treated with compression therapy for periods varying from 2 to more than 24 months. Currently, compression therapy is the best practice treatment for venous ulcers.

The results achieved with the treatment of the first patient in this study were typical.

Clinical Trial Results: 1st Patient, Vascular Research Laboratory, Fremantle Hospital

- 70 year old female
- venous ulcer for approximately 12 months, not healed with conventional treatment
- 60% reduction in wound areas in 21 days
- no adverse reactions
- healed completely 6 weeks after start of VitroGro® treatment



Clinical Trial: Diabetic, Venous & Pressure Ulcers: Community Dermatology & Wound Healing Clinic, Toronto, Canada, Professor Gary Sibbald, 10 patients - Underway

Started November 2008 and final results are expected by end of October 2009.

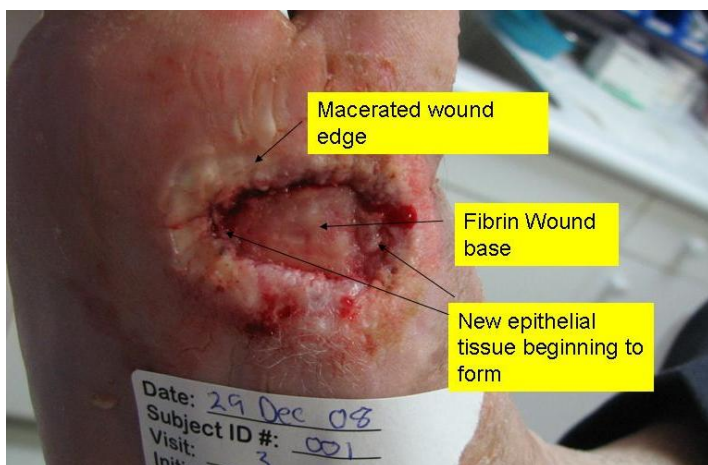
The first patient recruited into the study was a 73 year old man with long standing diabetes and high blood pressure who continues to smoke half a packet of cigarettes per day. The diabetic ulcer at the base of his right big toe had not responded to conventional treatment for more than two years and had been the site of recurrent infections for which he needed combination antibiotics.

After more than two years of treatment with no response, this patient was so despondent that he was considering fore foot amputation as the only means of ridding himself of the pain, social isolation and reduced mobility commonly suffered by patients with chronic ulcers. However, following 6 weeks of treatment with VitroGro®, the maximum permitted under the approved trial protocol, the ulcer has reduced in size by almost one third.

Results for the first 6 patients in this study are summarised in the following table. **Once again VitroGro® showed excellent wound healing results in a group of patients who clinically are at the most extreme end of difficulty and for whom the best currently available treatments had failed.** There were no adverse reactions to VitroGro®.

Patient	Ulcer Pathology	Age (yrs)	Gender	Result	Medical / Other Complicating Factors
1	Diabetic	73	M	29% ulcer healing	High blood pressure, smoker, previous toe amputation
2	Diabetic	60	M	32% ulcer healing	Kidney dialysis, right below knee amputation, artificial leg complicates treatment of new ulcer on left foot
3	Diabetic	22	M	Healing from base	Started full time work 1 week after joining clinical trial, congenital neuropathy and bilateral leg braces complicate ulcer treatment
4	Diabetic	70	M	15% ulcer healing	Ulcer over old scar for correction of club foot in childhood, shoes & socks creating pressure and friction on ulcer slowing healing
5	Venous	49	F	Healing from base	Ulcer in area of scarring, computer operator who sits most of the day at work
6	Venous	52	F	26% ulcer healing	Severe auto-immune disease (lupus erythematosus), work requires standing and walking most of the day

First Toronto Patient: 29% Healing in 6 Weeks



- 73 year old male, Type II diabetic, high blood pressure, smoker
- Diabetic ulcer at base of right big toe
- Conventional treatment ineffective for more than 2 years – amputation considered
- 29% reduction in diabetic ulcer area in 6 weeks with VitroGro® treatment
- Infection resolved
- Improved health of tissue at ulcer edge
- No adverse reactions to VitroGro®
- Continued improvement expected during follow up period of the trial

Second Toronto Patient: 32% Healing in 6 Weeks



- 60 year old male, diabetic
- Renal dialysis since kidney failure in early 2008
- Right below knee amputation due to diabetes & uses a right lower leg prosthesis
- Diabetic ulcer on left heel
- Right artificial leg increases pressure on left foot, making treatment of left heel ulcer more difficult
- 32% reduction in diabetic ulcer area in 6 weeks with VitroGro® treatment despite heavy presence of bacteria
- Rapid healing of ulcer from the edges and from the base with healthy new tissue in floor of the ulcer
- No adverse reactions to VitroGro®
- Continued improvement expected during follow up period of the trial

3. Potential Strategic Partners

- A number of international wound and healthcare companies have expressed commercial interest in VitroGro®. Identification of promising new technologies must be verified by human trial results. Candidate strategic partner companies have indicated they are waiting for clinical trial results before proceeding with formal partnership negotiations.
- Tissue Therapies' strategy is to use positive human clinical trial results to leverage interest from international wound and healthcare companies to negotiate a strategic partnership agreement for the international sale and distribution of new VitroGro® wound healing products.

4. Commercialisation Strategy

- With positive human clinical trial results, Tissue Therapies intends to:
 - use clinical trial data to proceed with formal partnership negotiations with identified potential healthcare partners;
 - proceed with large scale manufacturing of new formulation VitroGro®, to provide simpler, faster and cheaper manufacturing;
 - repeat a small clinical trial of new formulation VitroGro®; and
 - apply for regulatory approval of new formulation VitroGro® and leverage the world-wide sales and distribution capabilities of an appropriate commercial partner for international sales of VitroGro®, including in the USA.

5. Additional Product Pipeline

- **Growth of Stem Cells:**
 - VitroGro® can be used as a completely synthetic replacement for all animal and human serum in the media used to grow stem cells.
 - This has been demonstrated over more than 20 generations of stem cells.
 - Stem cells cultured with VitroGro® do not differentiate into other cell types.
 - In combination with a collaborator's technology, feeder cells can also be removed.
- **Protease Inhibitor Bandage:**
 - Removes inhibitory enzymes that prolong healing by degrading proteins necessary for wound healing
 - Combines VitroGro® with an already approved pharmaceutical
- **Scar Remediation (First Right of Refusal for Commercialisation):**
 - Specific silicon molecules discovered to reduce skin cell (fibroblast) production of scar tissue (collagen).
 - IP developed by scientists at the Queensland University of Technology.
 - Resulted from a collaboration between cell biologists and polymer chemists.
- **Bioactive Bandage (First Right of Refusal for Commercialisation):**
 - Australian Research Council collaboration between Queensland University of Technology, University of Queensland and Tissue Therapies.
 - Combines nanotechnology beads with VitroGro® to develop sustained release sophisticated wound dressings.

Risks

Your Directors encourage your continued support of the Company. Before making an investment decision however, you should read the terms of the SPP Offer and the Plan Rules accompanying this letter in their entirety. An investment in Tissue Therapies is speculative. Risk factors associated with an investment in Tissue Therapies include:

- the price of the New Shares and New Options may be influenced by factors beyond the control of Tissue Therapies, such as the share market and general economic conditions;
- an inability to gain required approvals for future clinical trials;
- failure to meet clinical trial objectives or adverse events occurring during clinical trials;
- an inability to successfully complete clinical trials and commercialise its intellectual property;
- inability to attract and retain strategic partners;
- timing and cost of regulatory approvals;
- inability to adequately protect intellectual property; and
- competition from companies which have potentially greater access to and volumes of resources.

If you have any questions about participating in the SPP, you should consult your stockbroker, accountant, professional adviser or call Link Market Services Limited on 1300 794 935 (within Australia) or +61 2 8280 7911 (outside Australia).

Please refer to the **enclosed** Tissue Therapies Limited Share Purchase Plan Offer and Rules for further details of the Offer.

Your Board of Directors commends this offer of new shares for your consideration

Yours sincerely



Dr Steven Mercer
CEO, Tissue Therapies Limited

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