



TRT
Tissue Regeneration Technologies

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TISSUE REGENERATION TECHNOLOGIES announces its first coronavirus clinical trial has been initiated utilizing unfocused Shockwave Therapy (SoftWaves®). Additionally, TRT has filed a Second Patent in the War Against COVID 19. The Patent is For the Treatment of Lung (and Other Organ) Disorders and Diseases such as COVID - 19 and COPD with Shockwaves to Treat the Virus and Avert Mortality in Order to Accelerate the Recovery of Afflicted Patients.

Woodstock GA, 4/11/2020 (MULTIPLE OUTLETS) – Tissue Regeneration Technologies (TRT) announced today an important addition to our patent family to potentially aid in the fight against the Coronavirus. This patent applies the known mechanisms of action of unfocused Shockwaves against this deadly virus. It is documented that the application of shock waves can produce the following effects in vivo:

- Stem cell activation
- Modulation of inflammation
- Blood flow improvement
- Antimicrobial and antiviral
- Dislodging, liquefaction and dilution of viscous fluids such as phlegm

All of these effects may aid in the fight against the Coronavirus. The last bullet point may allow for life-threatening mucous to be expelled more efficiently. As Shockwaves pass through tissue types with differing acoustic properties (lung tissues and thick mucus produced by COVID type viruses), energy is released at the interfaces, which is theorized to contribute to the dislodging of mucus that has been observed immediately after treatment. Additionally, the known anti-inflammatory properties of Shockwaves may modulate the inflammatory overreaction initiated by COVID-19. Finally, the reparative properties of Shockwaves, including the activation of resident stem cells, may aid in the recovery and regeneration of damaged lung tissue.

John Warlick, CEO states, “the most exciting development is that we have initiated our first clinical trials enrolling those patients where both ventilators and ECMO (Extracorporeal Membrane Oxygenation) have to stabilize the patient. Based on the first acting mechanism of action discussed above we hope to release the initial results quickly. We have been very cautious to develop our unfocused Shockwave (SoftWave®) tools for the treatment of the lungs as there are many misconceptions about the risks associated with Shockwaves and lung tissue developed from the thirty plus years of utilizing high energy, focused Shockwaves to destroy kidney stones. TRT’s unique, patented low energy unfocused Shockwaves do not adversely affect lung tissue as previously feared. This has been demonstrated with extensive invitro and invivo trials. Had the virus affected

any other part of the body, we would expect to reduce the negative symptoms. Because the lungs are the target of the virus, and given our historic misconceptions, we have been very cautious in the use of Shockwaves for lung pathologies.

CEO John Warlick further states, “TRT has assembled a team of doctors, engineers, and physicists to support this Herculean effort to eradicate the virus in the lungs. More importantly, TRT will release an open source “white paper” site for others to contribute to this project. This project is too critical to handle on our own. We need to enlist additional experts in this endeavor. We know Shockwaves influence most of the known biologic pathways to disrupt viral replication and aid in the support of the patient's recovery. We are very confident in the outcome of our fight to destroy the effects of the virus.”

“Ironically, a virus is a very fragile agent. Others seek very elaborate, expensive technologies to fight viruses. Sometimes you just need a sonic hammer. At the most basic level, Shockwaves are just a biologic hammer triggering a basic biological response.”

About TRT

Tissue Regeneration Technologies, LLC, is a Georgia limited liability company with its principal place of business in Woodstock, Georgia. It was founded in 2004 as Shockwave Technical Service, LLC, and amended its name to its current form in 2006. TRT is a medical technology company that develops, manufactures, and sells shockwave devices used to treat a variety of medical conditions. Originally conceived and operated as a research and development company, TRT began marketing and sales operations of certain of its products in 2008. TRT is currently engaged in business throughout the United States, and has a strong international presence through its German affiliate, MTS Europe GmbH.

TRT develops and manufactures its “SoftWave” devices through its German affiliate, MTS. The technology utilized in the devices can be categorized into two groups: (1) patented, unfocused “SoftWaves®” for soft tissue indications (e.g., wounds), and (2) focused Shockwaves for lithotripsy and bony indications (e.g., non-healing fractures).

The patented SoftWave technology uses various lens configurations to produce pressure waves. These waves have a characteristic pressure profile of short rise-times reaching high amplitudes (comparable to a sonic boom). The pressure waves can be shaped through a reflector, which enables the transmission of either highly-focused Shockwaves for use on urinary stones or non-union fractures, or soft-focused pressure waves (i.e., SoftWaves®) for most soft tissue indications.

TRT’s patented SoftWave® technology is distinguished from competitors’ shockwave technology in that TRT uses a patented parabolic (as opposed to an ellipsoid) reflector in the therapy head, which allows delivery of unfocused waves of acoustic energy over a broad target area. TRT’s SoftWave® technology generates less pain, has a higher efficacy rate, and has a lower re-treatment rate than competitors’ high-energy, focused shockwave systems. TRT is the first company to discover that “SoftWaves®” have the same or better clinical benefit as high-energy focused

Shockwaves for most medical conditions. Following this discovery, TRT further developed the idea into a useful format, and secured patents protecting its inventions.

The advantages of SoftWave® technology include the following benefits: (1) treatments do not

require anesthesia; and (2) larger surfaces, such as wounds, can be treated faster and easier than with competing shockwave devices.

Product Lines

TRT currently has product lines developed for the treatment of six distinct areas of care:

- LithoGold® – Lithotripsy and urology indications
- OrthoGold® – Orthopedic indications
- DermaGold® – Wound care indications
- CardioGold® – Cardiac and vascular indications
- VetGold® – Veterinary indications
- UroGold® – Urologic indications

The OrthoGold® has been FDA cleared for connective tissue activation and registered for increased blood flow and pain relief. The DermaGold® has been FDA cleared to treat diabetic ulcers. Each of these devices has successfully undergone CE (“European Economic Area”) approval. TRT has the rights to distribute the products throughout North America, and MTS has the rights to distribute in all other locations.

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