

Theralase Identifies Lead Photo Dynamic Compound for Human Clinical Trials

Toronto, Ontario – January 15, 2015, **Theralase Technologies Inc. (“Theralase”) (TLT:TSXV) (TLTFF: OTC Pink®)** announced today that it has identified its lead Photo Dynamic Compound (“PDC”) that it plans to enter into a Health Canada Clinical Trial Application (“CTA”) / Food and Drug Administration (“FDA”) Investigational New Drug (“IND”) Application for the destruction of Non Muscle Invasive Bladder Cancer (“NMIBC”) in 2015.

The lead PDC has been identified to be TLD-1433, a Ruthenium based PDC that has demonstrated a high Therapeutic Ratio, which has the highest overall performance in the green and red laser light spectrums for multiple cancer cell lines, including glioma (primary brain tumours that originate from the supportive cells of the brain) and bladder cancer.

The Therapeutic Ratio represents the ability of the PDC to destroy cancer cells by comparing cancer cell destruction in the absence of light (dark toxicity) to cancer cell destruction when light activated by a certain wavelength (colour) of light (light toxicity). Research is currently being completed by the Theralase scientific team to increase these Therapeutic Ratios even further.

In the recent orthotopic rat model completed in 4Q2014, TLD-1433 demonstrated:

- Preferential uptake in bladder cancer areas versus normal bladder wall (180 times greater selectivity)
- High efficacy in the destruction of the bladder cancer cells, when laser light activated
- No visible damage to healthy bladder cells with apparently normal bladder urothelium, when laser light activated
- Very high systemic safety profile with virtually no PDC entering the blood stream, pre or post treatment (delivery completed via direct bladder instillation)

Dr. Arkady Mandel, Chief Scientific Officer of Theralase stated that, “Theralase has four incredible PDCs in its platform of anti-cancer drugs and it has been a difficult decision to decide which PDC to proceed with. All PDCs have demonstrated high versatility, the ability to effectively destroy numerous cancer cells in-vitro (in cell lines) and strong in-vivo (in animal models) activity. The collective decision was finally made to proceed with TLD-1433 due to its biomedical characteristics, clinical appropriateness for intravesical (inside the bladder vessel) Photo Dynamic Therapy (“PDT”) and the proven ability to effectively destroy bladder cancer cells when laser light activated. Additional experimentation into both the drug dose and light activation parameters is being executed in 1Q2015 to allow our scientific team the ability to optimize PDT parameters prior to entering TLD-1433 into the CTA and IND clinical phase for NMIBC in 2015.”

Roger Dumoulin-White, President and CEO of Theralase stated that, “Our research scientists have conducted hundreds of experiments both in-vitro and in-vivo in order to arrive at the decision to proceed with TLD-1433 in the destruction of NMIBC. Now that the decision has been made to proceed with TLD-1433, Theralase will ramp up production of both non Good Manufacturing Practice (“GMP”) and GMP batches of TLD-1433 for our toxicity analysis and human clinical trials slated for 2015. ”

About Theralase Technologies Inc.

Press Release



Founded in 1994, Theralase Technologies Inc. ("Theralase®") (TSXV: TLT) (TLTFF: OTC Pink®) designs, manufactures and markets patented super-pulsed laser technology used for the elimination of pain, reduction of inflammation and dramatic acceleration of tissue healing. Theralase has sold over 1,200 systems to licensed healthcare practitioners, including: medical doctors, chiropractors, physical therapists and athletic therapists. Theralase has been so successful in healing nerve, muscle and joint conditions in clinical practice that Theralase's scientists and clinicians have now turned their attention to investigating the application of its lasers in the destruction of cancer, using specially designed molecules called Photo Dynamic Compounds ("PDCs"), which are able to localize to the cancer cells and when light activated, destroy them.

Additional information is available at www.theralase.com and www.sedar.com.

This press release contains forward-looking statements, which reflect the Company's current expectations regarding future events. The forward-looking statements involve risks and uncertainties. Actual results could differ materially from those projected herein. The Company disclaims any obligation to update these forward-looking statements.

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