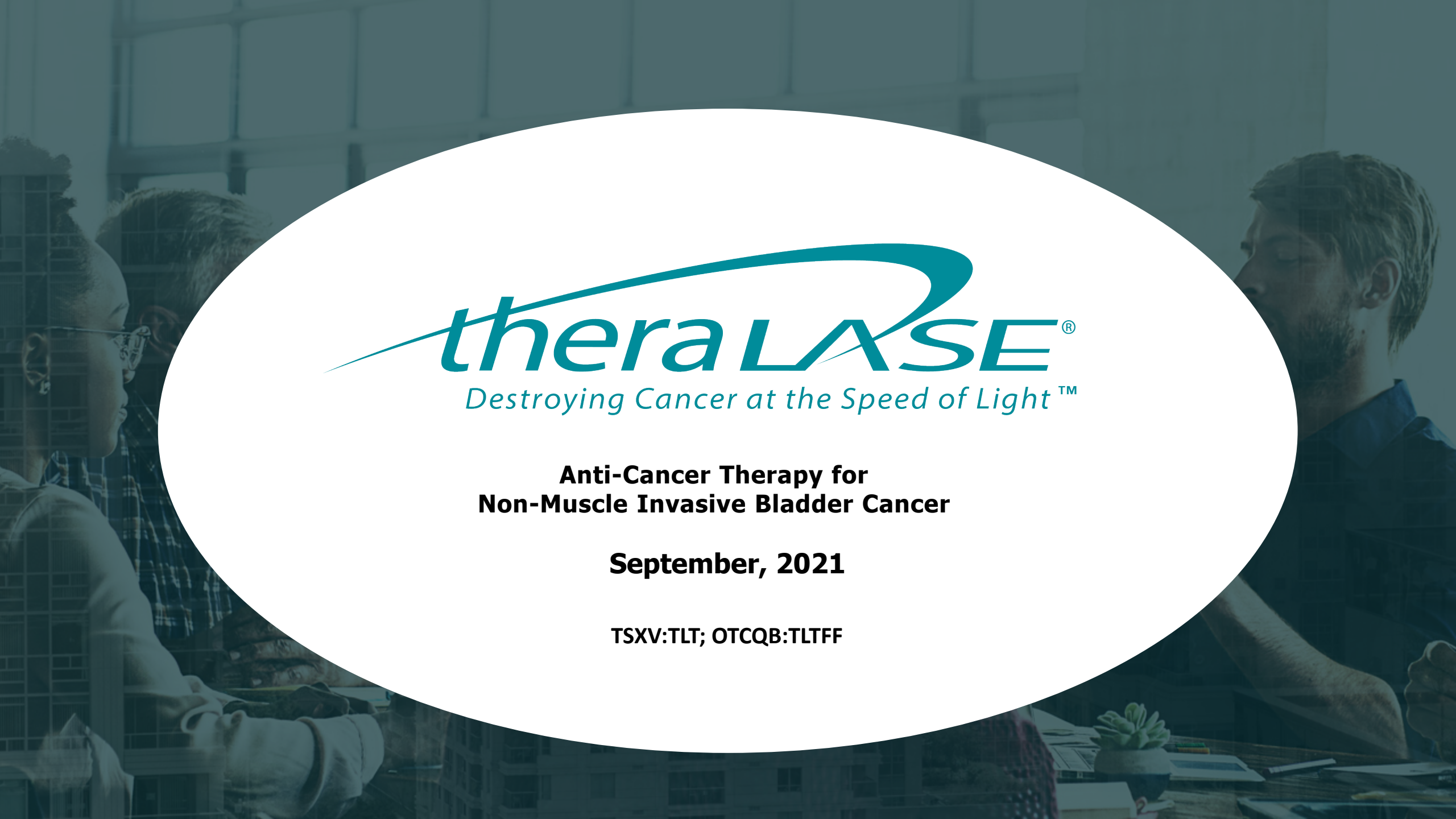

theraLASE®

Destroying Cancer at the Speed of Light™

Anti-Cancer Therapy for
Non-Muscle Invasive Bladder Cancer

September, 2021

TSXV:TLT; OTCQB:TLTFF

Forward Looking Statements

Certain statements contained or incorporated in this presentation, which deal with the financial condition and operating results of Theralase Technologies Inc. ("**Theralase**" or the "**Company**"), include information, analyses and projections as to future corporate developments which are currently in the planning stage and reflect the current expectations of Company's management of the future growth, results of operations, performance, business prospects and opportunities. Such forward-looking statements, made with special reference to the Company's ongoing technologically complex preclinical, clinical and medical device research and development efforts include, but are not limited to, assumptions about: the business operations of Theralase continuing on a basis consistent with prior years; the ability of Theralase to access financing from time to time on favourable terms or at all; the continuation of executive management, operating management, key personnel or key consultants or the non-disruptive replacement of them on reasonable terms; the ability of Theralase to maintain reasonably stable operating and general administrative expenses; future success of current research, development and/or commercialization activities of Theralase; the ability of Theralase to achieve development and/or commercial milestones; the ability of Theralase to successfully market its products over its competition; the ability of Theralase to secure all necessary regulatory and/or certification approvals; geographic and uncontested protection over the intellectual property of Theralase in the markets in which Theralase does business; market acceptance and/or revenue generation of Theralase's products; the stability of current economic conditions, the strength of the economy in Canada, the United States and elsewhere; currency, exchange and/or interest rates and commodity prices being reasonably stable at current rates. No conclusions as to the successful outcome of the ongoing and planned research and development projects in which the Company is involved are intended or implied; nor can they be foreseen or predicted prior to definitive corporate announcements as to their outcome. Any statements that refer to expectations, projections, other characterizations of future events or circumstances are forward-looking statements. Although Theralase believes that the expectations reflected in any forward-looking statements made in this presentation are reasonable, such statements are based on a number of assumptions which may prove to be incorrect; including, but not limited to assumptions related to the risks and factors set out in the Company's current Annual Information Form and Base Shelf Prospectus documentation available on SEDAR under the Company's profile at www.sedar.com. Accordingly, no assurances can be given that any of the events or circumstances contemplated by any such forward-looking statements will transpire or occur or, if any of them transpire or occur, what impact they will have on Theralase's results of operations or financial condition. Furthermore, the forward-looking statements contained in this presentation are made as of the date hereof for the purpose of providing, investors with information regarding the Company's plans for its business and expected milestones. The Company does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events, or otherwise, unless required by applicable laws. The forward-looking statements contained in this presentation are expressly qualified by this cautionary statement.

The Company's financial disclosure includes non- International Financial Reporting Standards ("**IFRS**") financial measures as supplemental indicators of the Company's financial and operating performance. The Company believes these supplemental financial measures reflect the Company's on-going business in a manner that allows for meaningful period-to-period comparisons and analysis of trends in its business. Accordingly, the Company believes that such financial measures may also be useful to prospective investors in enhancing their understanding of the Company's operating performance. These non-IFRS measures are not recognized under IFRS and do not have standardized meanings prescribed by IFRS; therefore, it is unlikely that these measures will be comparable to similarly titled measures reported by other issuers. Non-IFRS financial measures should be considered in the context of the Company's IFRS results. The Company cautions readers to consider these non-IFRS financial measures in addition to, and not as an alternative for, measures calculated in accordance with IFRS. The financial statements of the Company are prepared in accordance with IFRS and are reported in Canadian dollars. All currency amounts in this presentation are expressed in and all references in this presentation to "$" to Canadian dollars, unless otherwise indicated.

THERALASE

theraLASE®
Destroying Cancer at the Speed of Light™

Clinical stage pharmaceutical company

Focused on the research, development and commercialization of light activated Photo Dynamic Compounds ("**PDCs**") and their associated drug formulations intended to safely and effectively treat various cancers, bacteria and viruses.

Lead cancer indication is Non-Muscle Invasive Bladder Cancer ("**NMIBC**").

Cool Laser Technology ("**CLT**") Division researches, develops and commercializes medical laser systems for the activation of PDCs.

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BLADDER CANCER

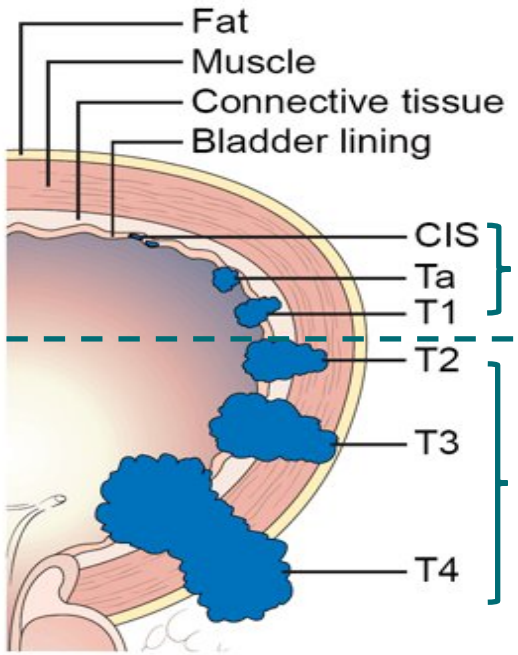
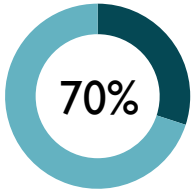


Diagram showing the T stages of bladder cancer
© CancerHelp UK

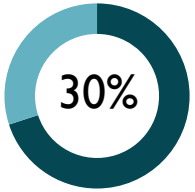
Non-Muscle Invasive Bladder Cancer ("**NMIBC**")

80% rate of tumour recurrence and up to 50% progression within 5 years[4]

243,308
new cases of bladder cancer each year in the U.S., Canada and Europe[1]



168,000
are classified as NMIBC[2]



50,400
become unresponsive to current standard of care treatment *Bacillus Calmette-Guérin* ("**BCG-Unresponsive**") within 1 year[3]

Patients that fail BCG treatment are prescribed a radical cystectomy [5] (surgical removal of bladder and associated tissue)

Estimated: 80,470 new cases in US, and 11,838 new cases in Canada, 151,000 new cases of bladder cancer in Europe in 2019[1]

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[1] Key Statistics for Bladder Cancer – American Cancer Society (2018); Canadian Cancer Society (2019) and Bladder Cancer – European Cancer Patient Coalition
[2] https://www.uptodate.com/contents/bladder-cancer-treatment-non-muscle-invasive-superficial-cancer-beyond-the-basics#!
[3] The management of BCG failure in non-muscle-invasive bladder cancer: an update (2009)
[4] European Organization for Research and Treatment of Cancer (EORTC) - (Veeratterapillay R, Heer R, Johnson MI, Persad R, Bach C. High-risk non-muscle-invasive bladder cancer-therapy options during intravesical BCG Shortage. Curr Urol Rep. 2016;17:68) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5769243/
[5] NCCN Guidelines Insights: Bladder Cancer, Version 5.2018, J Natl Compr Canc Netw 2018;16(9):1041–1053

OPPORTUNITY

NMIBC BCG-Unresponsive market

Social Demand → Patients in need, urgent demand for bladder cancer drug

Willingness to pay
$50K - $150K[6]

Innovation Demand → Bladder cancer patients facing low quality of life after cystectomy

Market Opportunity → From diagnosis to death, it will cost bladder cancer patients $89K-$200K[7], as bladder cancer is the most expensive cancer to treat.

Market Opportunity[8]

240,000[1] x 70%[2] x 30%[3] x ½ x $50,000[6] =

$1.1 billion

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[6] Willingness to pay per quality adjusted life year (QALY) for competitor drug, Pembrolizumab. Source: Cost-effectiveness of Pembrolizumab in Second-line Advanced Bladder Cancer, July 2018
[7] Sievert KD, Amend B, Nagele U, et al. Economic aspects of bladder cancer: what are the benefits and costs?. World J Urol. 2009;27(3):295–300. doi:10.1007/s00345-009-0395-z
[8] 2025 estimated bladder cancer market (US, France, Germany, Italy, Spain, UK & Japan). Source: Global Data: Bladder cancer market size to more than triple to over $1.1 billion by 2025, April 2017

ANTI-CANCER TECHNOLOGY ("ACT")

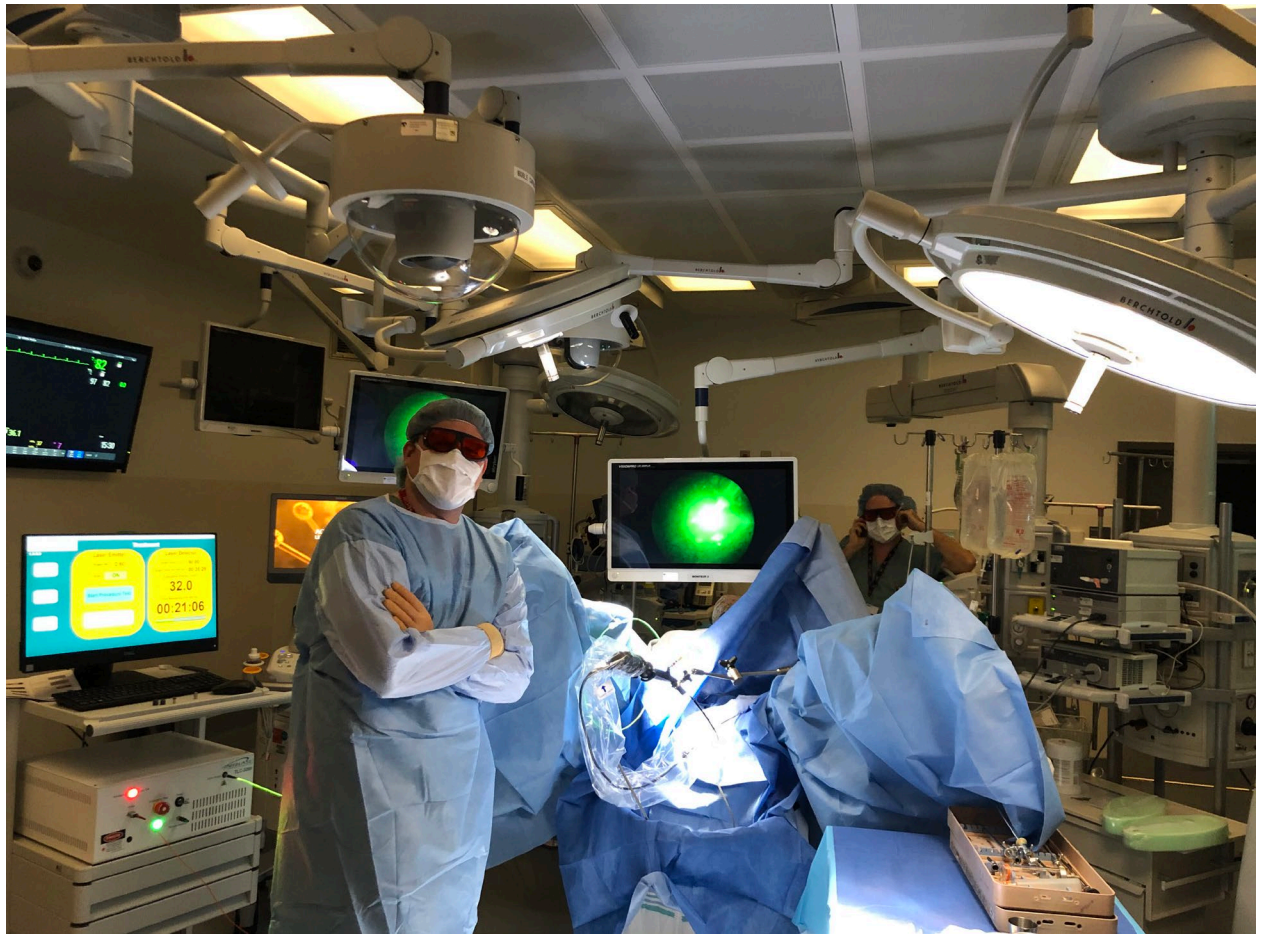
theraLASE® Destroying Cancer at the Speed of Light™

Patient Targeted Therapy

What is ACT?

Photo Dynamic Therapy uses light-sensitive compounds (photosensitizers) that are activated by light to induce cytotoxicity.

These compounds penetrate preferentially into cancer cells, leaving healthy cells intact, and when activated by light, destroy cancer cells with minimal to no side effects.



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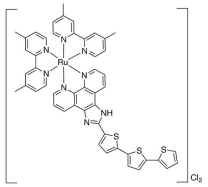
[9] Kalinina S, Breymayer J, Reeß K, Lilge L, Mandel A, Rück A. Correlation of intracellular oxygen and cell metabolism by simultaneous PLIM of phosphorescent TLD1433 and FLIM of NAD(P)H. J Biophotonics. 2018 Oct;11(10):e201800085. doi:10.1002/jbio.201800085. Epub 2018 Jul 9. PubMed PMID: 29877627.
[10] Phase Ib NMIBC Clinical Study patient cystoscopy photograph, after instillation of Study Drug, prior to TLC-3200 Light Activation
[11] Reference: Urol Res. 1987;15(6):341-4.Transferrin receptor expression by human bladder transitional cell carcinomas, Seymour GJ, Walsh MD, Lavin MF, Strutton G, Gardiner RA

ANTI-CANCER TECHNOLOGY ("ACT")

Photo Dynamic Therapy ("PDT")



TLD-1433

Study Drug instilled in bladder via catheter. TLD-1433 is a Ruthenium based PDC that is highly toxic to cancer cells when laser light activated

Cancer cell Penetration

TLD-1433 PDC localize preferentially inside bladder cancer cells

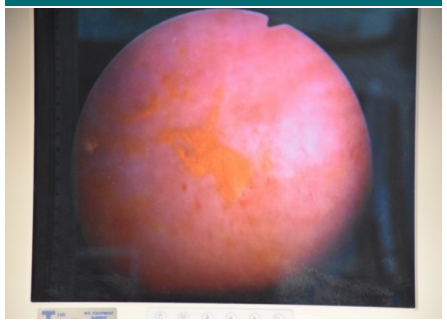
TLC-3200
Medical Laser System

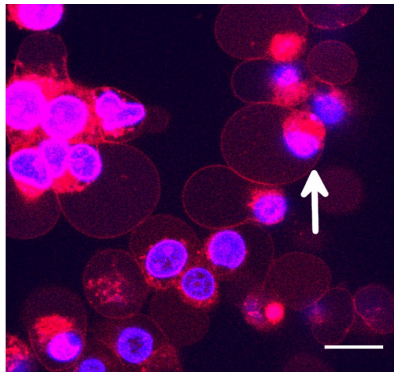
Green laser light activates TLD-1433 through fiber-optics

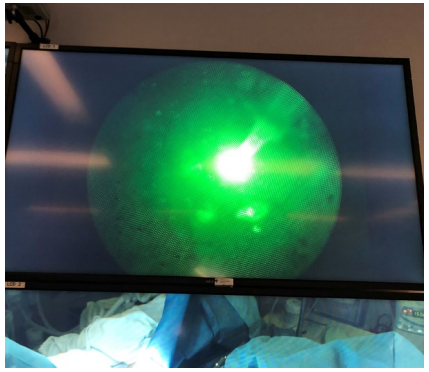
Cancer cell death

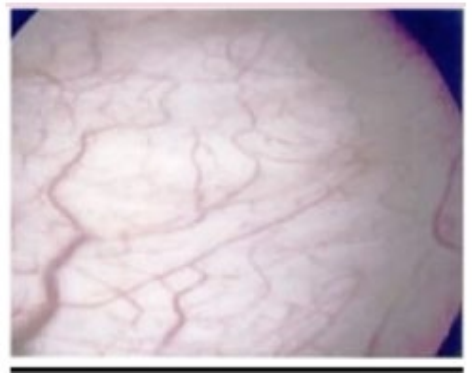
Bladder cancer cells destroyed by the production of singlet oxygen and / or ROS

Human Bladder Post Rinse Showing TLD-1433 Localized to Bladder Cancer Tumours [10] [11]









[9] Kalinina S, Breymayer J, Reeß K, Lilge L, Mandel A, Rück A. Correlation of intracellular oxygen and cell metabolism by simultaneous PLIM of phosphorescent TLD1433 and FLIM of NAD(P)H. J Biophotonics. 2018 Oct;11(10):e201800085. doi:10.1002/jbio.201800085. Epub 2018 Jul 9. PubMed PMID: 29877627.

[10] Phase Ib NMIBC Clinical Study patient cystoscopy photograph, after instillation of Study Drug, prior to TLC-3200 Light Activation

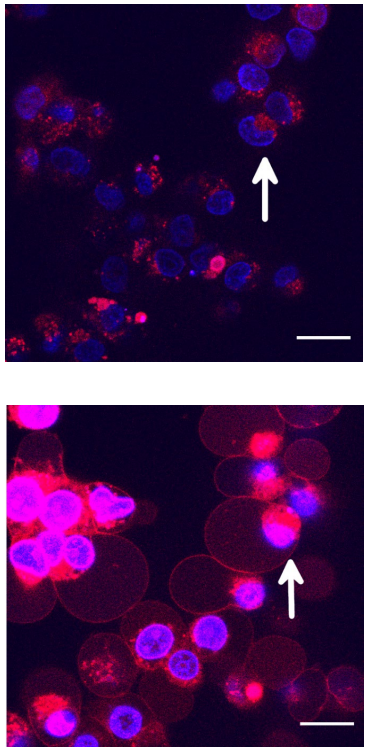
[11] Reference: Urol Res. 1987;15(6):341-4.Transferrin receptor expression by human bladder transitional cell carcinomas, Seymour GJ, Walsh MD, Lavin MF, Strutton G, Gardiner RA

TREATMENT PROCEDURE [12]

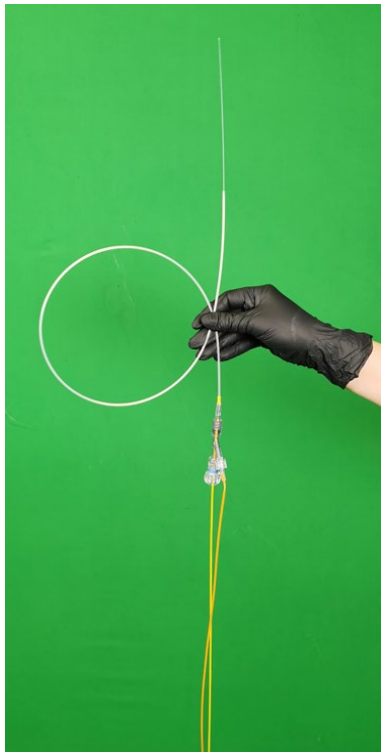
Advantages:

1. Personalized, targeted cancer cell destruction
2. Protect healthy tissues and organs
3. Minimally invasive, minimal side effects
4. Outpatient day procedure is conceivable

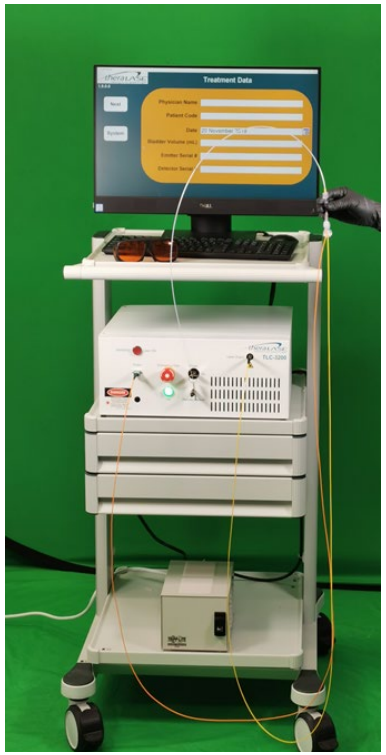
TLD-1433 Localized to Bladder Cancer Tumors[9]



TLC-3200 System (Laser Emitter and Detector)



TLC-3200 Hardware and Software



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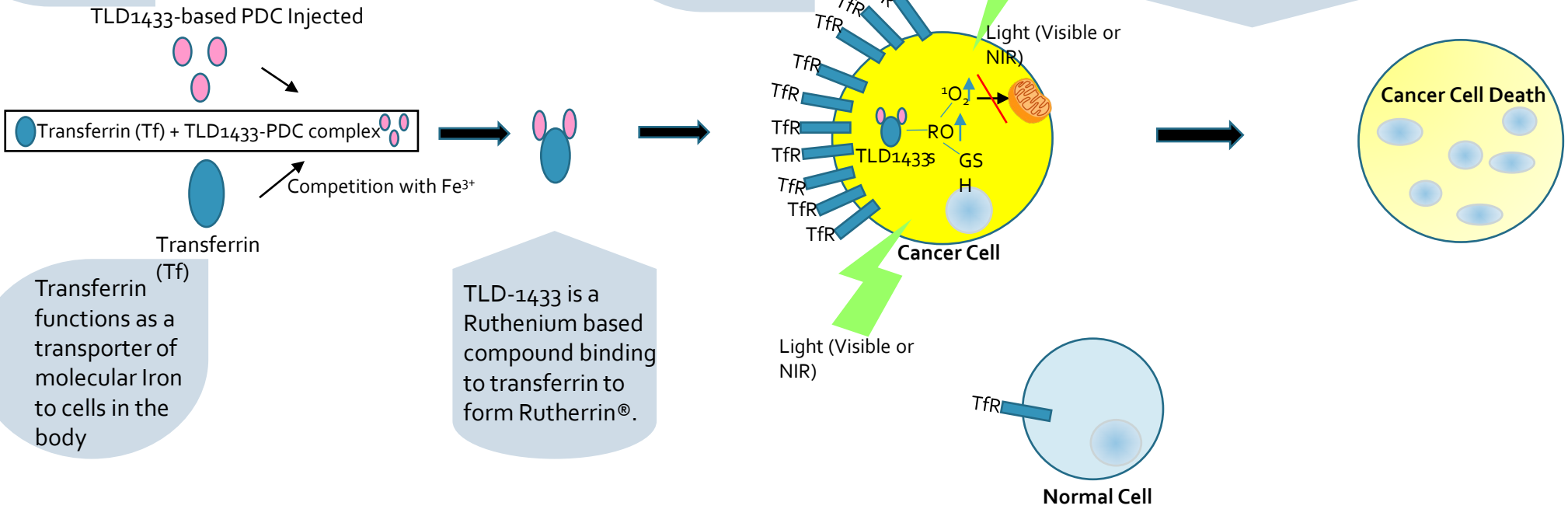
[12] Clinical Protocol TLD-1433-2 (Version 8.0) Dated: April 16, 2019

TLD-1433 MECHANISM OF ACTION(13)

Ruthenium is a transitional VIII metal having similar properties to Iron

Cancer cells have a larger number of Transferrin Receptors ("**TfR**") versus healthy cells[14][15]

TLD-1433 crosses the cancer cell wall and, when light activated, produces powerful cytotoxins in the form of Reactive Oxygen Species and singlet oxygen to induce cancer cell death.



Transferrin functions as a transporter of molecular Iron to cells in the body

TLD-1433 is a Ruthenium based compound binding to transferrin to form Rutherrin®.

TfR = Transferrin receptor

[13] Kaspler P, Lazic S, Forward S, Arenas Y, Mandel A, Lilge L. A ruthenium(ii)based photosensitizer and transferrin complexes enhance photo-physical properties, cell uptake, and photodynamic therapy safety and efficacy. Photochem Photobiol Sci. 2016 Apr;15(4):481-95. doi: 10.1039/c5pp00450k. Epub 2016 Mar 7. PubMed PMID: 26947517.
[14] Transferrin receptor regulates pancreatic cancer growth by modulating mitochondrial respiration and ROS generation. Jeong SM, Hwang S, Seong RH
[15] A novel transferrin receptor-targeted hybrid peptide disintegrates cancer cell membrane to induce rapid killing of cancer cells. Megumi Kawamoto, Tomohisa Horibe, Masayuki Kohno, Koji Kawakami

CLINICAL RESULTS (Phase 1b) [16]

Phase Ib NMIBC Clinical Study Endpoints

Primary

Safety

Safety and tolerability measured by Adverse Events ("**AEs**") not resolved within 180 days

Strong safety profile, minimal to no side effects (95% resolved within 180 days)

Secondary

Pharmacokinetics

Pharmacokinetics (movement and exit of drug from the body), measured using plasma and urine samples

Not a systemic drug; although present at picogram level, exits body within 72 hours [17]

No Photosensitivity issues.

Exploratory

Efficacy

Efficacy (evaluated primarily at 90 days, secondarily at 180 days), measured by Recurrence Free Survival ("**RFS**")

67% Complete Response ("**CR**"), 2 out of 3 patients are CANCER FREE up to 730 days post primary treatment

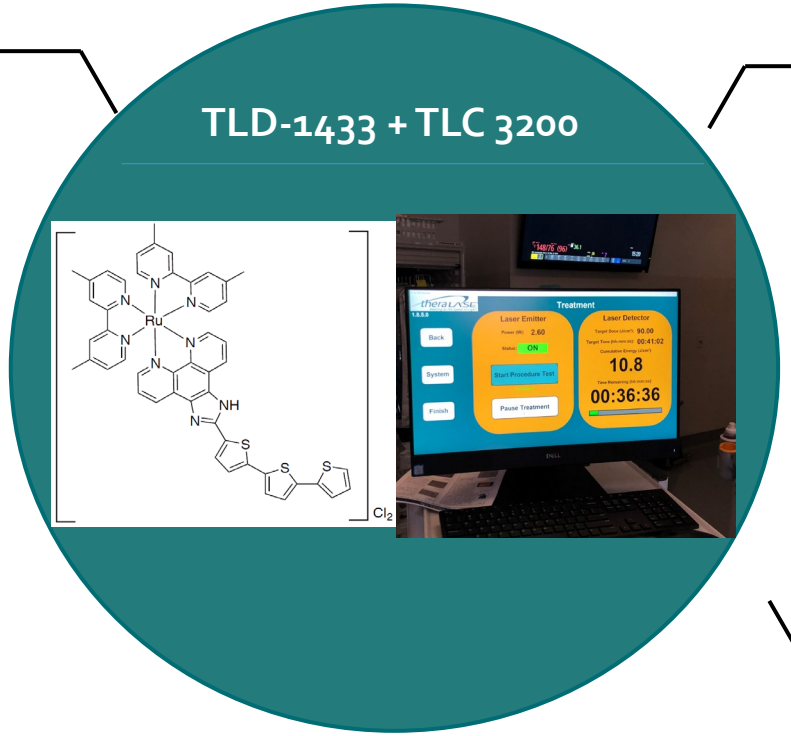
[16] Theralase Press Release "Patient Six Cancer-Free Twelve Months After Single Anti-Cancer Treatment, Results of Phase Ib Non-Muscle Invasive Bladder Cancer ("**NMIBC**") Clinical Study Demonstrate a 66% Complete Response ("**CR**") at the Therapeutic Dose (0.70 mg/cm2) 360 Days Post Treatment", Dated: April 2, 2019

[17] Plasma and urine samples collected at Princess Margaret Cancer Centre and analyzed by Altasciences - Phase Ib NMIBC Clinical Study, 2017-2018

STRONG INTELLECTUAL PROPERTY PROTECTION

Comprehensive intellectual property portfolio:

Both the drug and device (**TLD-1433** and **TLC-3200**) are patent-protected in the US, Canada, China, Russia and Europe.[18] [19]



24
issued patents[19]

27
patents filed in various stages of approval (pending, published & allowed)

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[18] U.S. Patent Nos. 9,345,769 and 9,676,806 and Canadian Patent No. 2,883,068 patents for "Metal-Based Thiophene Photodynamic Compounds and Their Use"; U.S. Patent No. 10,525,279 B2 for "Apparatus and Method for Multiwavelength Photodynamic Therapy" issued January 7, 2020
[19] Theralase Annual Information Form for the Year End December 31, 2020, Dated June 3, 2020

PIVOTAL PHASE II CLINICAL STUDY

Key Inclusion Criteria: **BCG-Unresponsive** NMIBC Carcinoma In-Situ ("CIS")

Guidelines

Multi-site (Approximately 20 sites) single-arm, open-label study

Approximately 100 patients to be evaluated at Therapeutic Dose (0.70 mg/cm²)

All patients to receive two treatment procedure (Day 0 and Day 180)[20]

FDA guidelines (February 2018) states that:

"In BCG-unresponsive NMIBC, a single-arm clinical trial with Complete Response rate and duration of response as the primary endpoint can provide primary evidence of effectiveness to support a marketing application"[21]

Primary

Efficacy

The efficacy is evaluated by CR in patients with CIS with resected papillary disease at any time point post initial treatment

Definition of CR as stated in FDA guideline based on Cystoscopy, Cytology and possibly Biopsy evaluation leading to determination that no cancer is present in the bladder.

Secondary

Efficacy

The efficacy is evaluated by duration of CR in patients with CIS with resected papillary disease evaluated at 12 months post initial CR.

Definition of CR as stated in FDA guideline based on Cystoscopy, Cytology and possibly Biopsy evaluation leading to determination that no cancer is present in the bladder.

Tertiary

Safety

The safety is evaluated by the incidence and severity of AEs Grade 4 or higher that do not resolve within 450 days post-treatment. (side effects)

Grade 1 = Mild
Grade 2 = Moderate
Grade 3 = Severe
Grade 4 = Life-threatening or disabling
Grade 5 = Death

[20] Clinical Protocol TLD-1433-2 (Version 8.0) Dated: April 16, 2019
[21] "BCG-Unresponsive Nonmuscle Invasive Bladder Cancer: Developing Drugs and Biologics for Treatment – Guidance for Industry" Dated: February 2018

PHASE II TIMELINE (Projected)

As of September 1, 2021 : 24 patients treated & 12 Clinical Study Sites Opened

Phase II in Canada starts August 2019

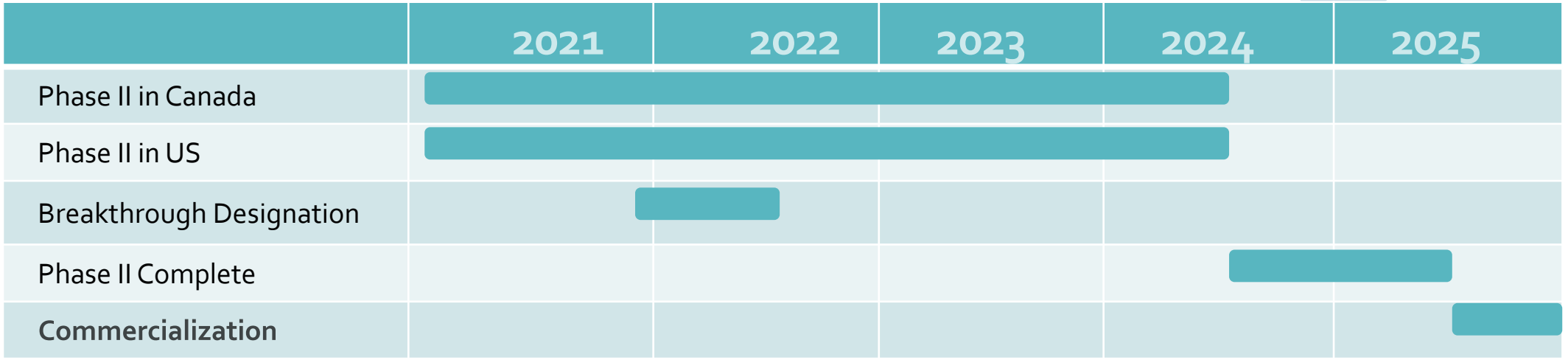
YTD - 21 patients in Canada treated; 5 Canadian Clinical Study Sites opened

Phase II in US to start 1Q2021

YTD – 3 patients in US treated; 7 US Clinical Study Sites opened

Treat 100-125 patients in Canada and US 2020-2024

Partner with Big Pharma To Commercialize



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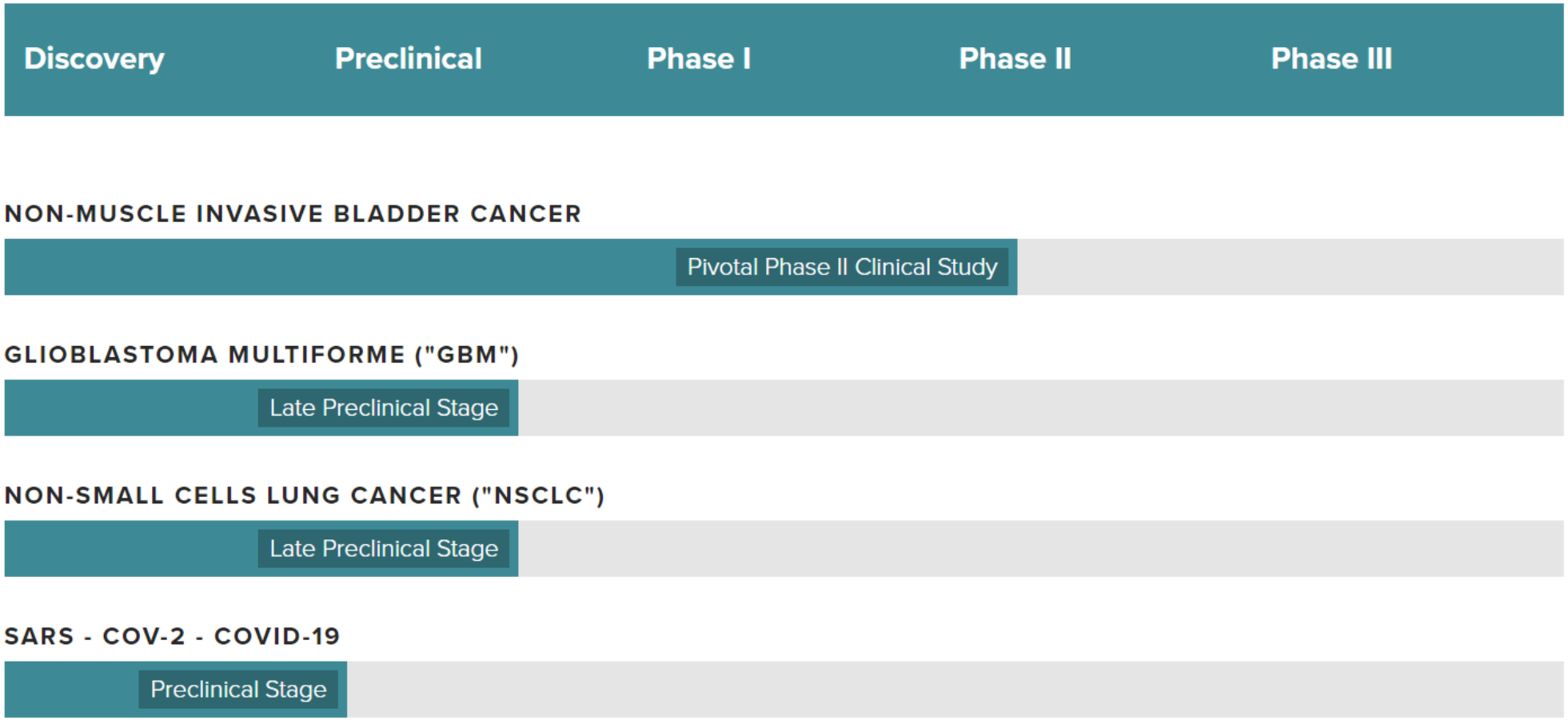
PRODUCT PIPELINE

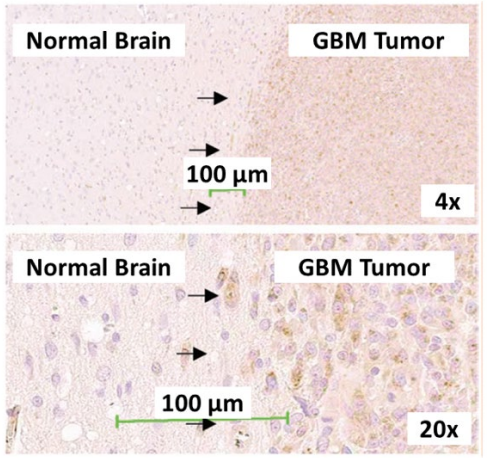
Theralase® has built a robust pipeline using the lead PDC, TLD-1433

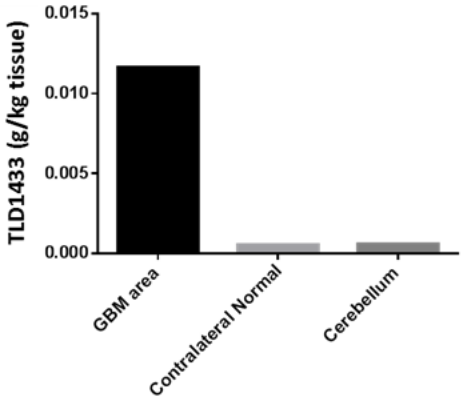


NEXT ONCOLOGY INDICATION

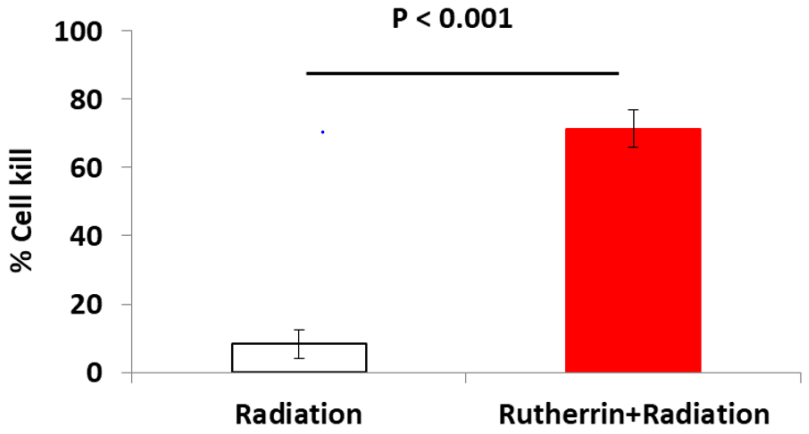
Glioblastoma Multiforme (“**GBM**”) TLD-1433 + radiation = destruction of human GBM (U87) Cancer cells.

Increased number of Transferrin Receptors in GBM tumors





Cell kill in GBM cells by Rutherrin® + Radiation



Rutherrin® uptake into RG2 cell-induced GBM tumor is highly selective due to the much higher expression of Transferrin Receptors (“**TfR**”) in brain tumors versus normal brain cells.

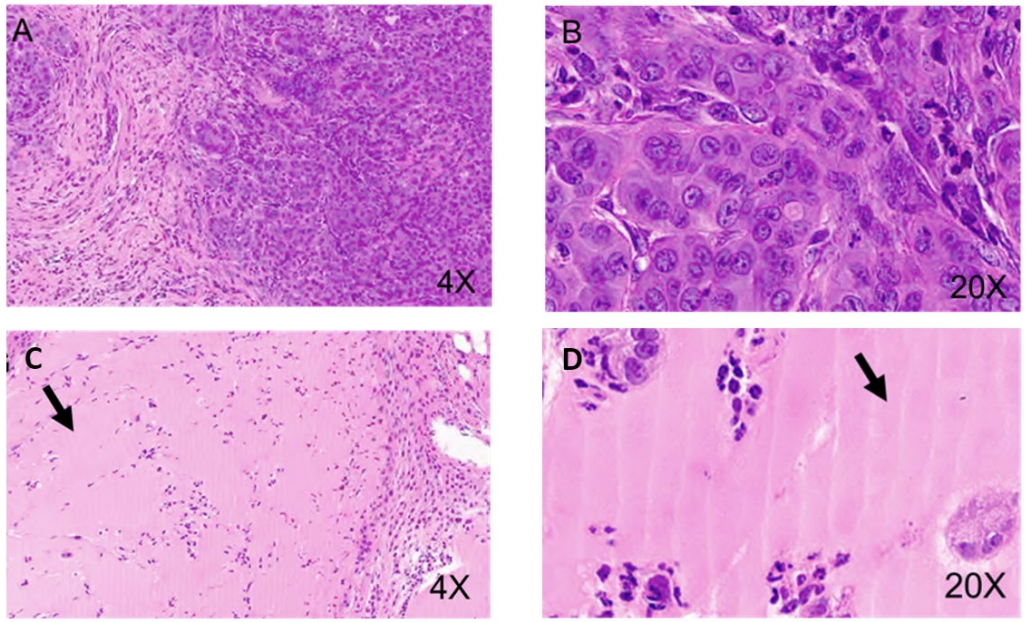
Rutherrin® activated by radiation caused approximately 75% cell kill in human GBM cancer cells versus radiation alone and was achieved at photon energy levels significantly below those used clinically to treat GBM (225 keV versus 6 MeV, a 27-fold difference).

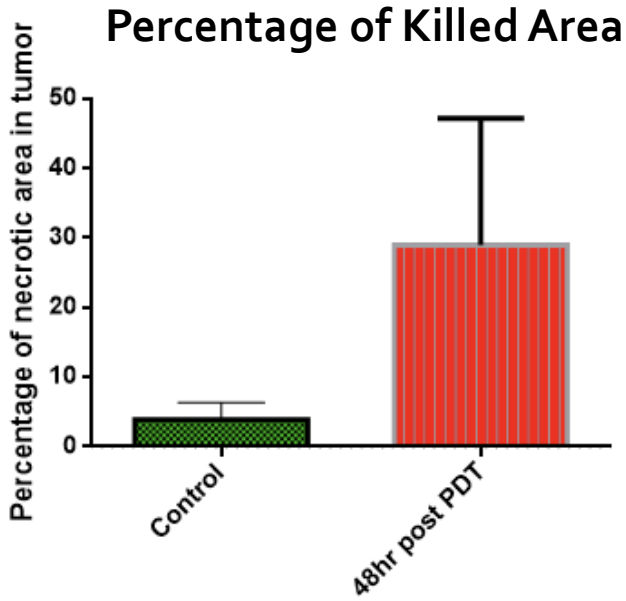
NEXT ONCOLOGY INDICATION

Non-Small Cell Lung Cancer ("NSCLC") TLD-1433 + NIR Light = destruction of human NSCLC Cancer cells.

Untreated Control

Rutherrin® activated by NIR





Rutherrin® activated by NIR light has been proven to destroy NSCLC tumours in subcutaneous and orthotopic model in mice. The Company is planning to advance the treatment of NSCLC by utilizing activation of Rutherrin® by radiation (X-ray)

NEW VIRUS INDICATION

Theralase enters the race to find a COVID-19 (SARS-CoV-2) Vaccine & Therapy

The research will be done In Conjunction with University of Manitoba and will focus initially on in-vitro (petri dish) analysis.

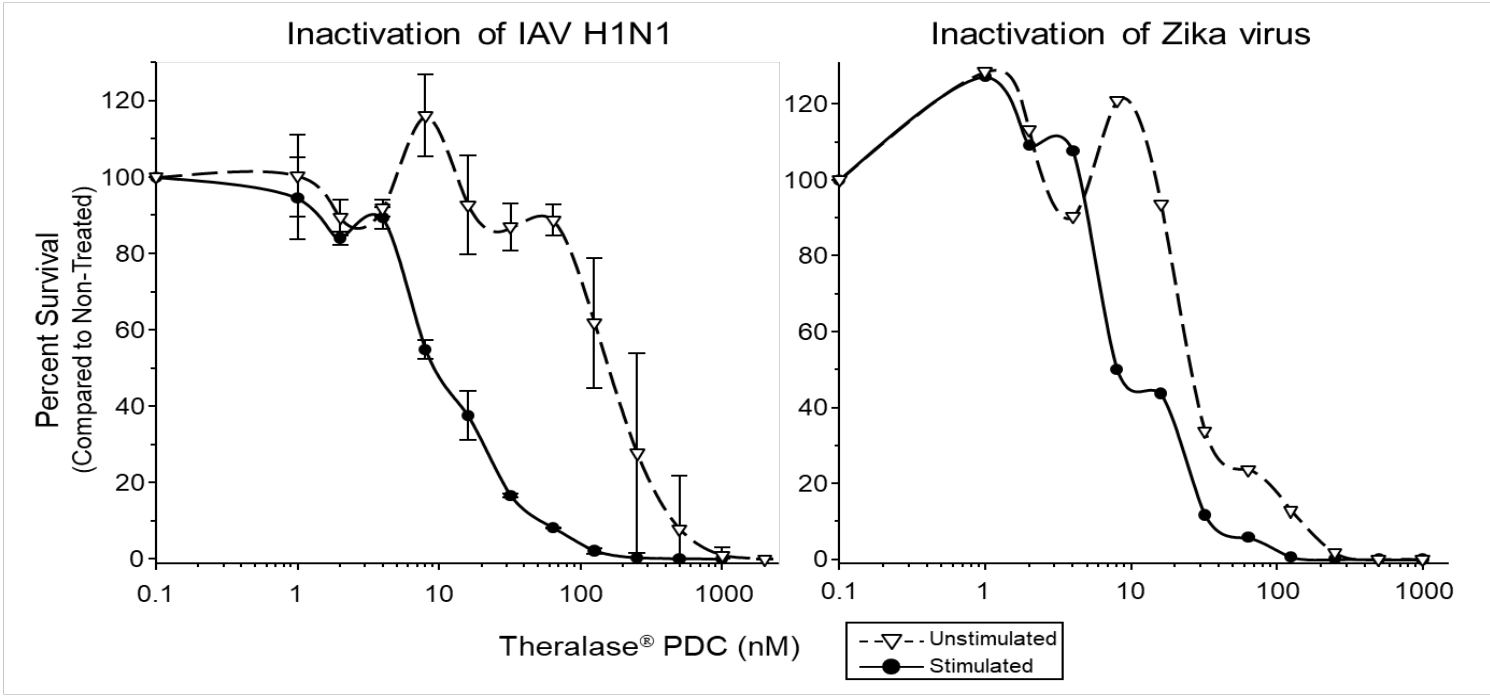
Research Objective

Primary

investigate the ability of TLD-1433 in the destruction of a variety of viruses; including: H1N1 Influenza, Zika, coronaviruses and of course COVID-19

Secondary:

Optimize the concentration of TLD-1433 required, the activation methodology and how to potentially administer the treatment to humans to be used as a vaccine (prevention of a patient from contracting SARS-CoV-2) and as a therapeutic (treatment of a patient who has already contracted SARS-CoV-2



The Company does not claim or profess that they have the ability to treat, cure or prevent the contraction of the SARS-CoV-2 Coronavirus.

Management Team

John Trikola

Interim Chief Executive Officer & Chief Operating Officer

25 years of technology experience working with companies ranging from startups to global Fortune 500 companies providing turnaround and restructuring engagements in the technology, manufacturing, and retail sectors.

Arkady Mandel
MD, PhD, DSc

Chief Scientific Officer

30 years of experience in technology creation and innovation. A key founder of therapeutic use of laser in dermatology and other areas of clinical medicine

Kristina Hachey
CPA

Chief Financial Officer

20+ years of experience in finance and financing for public and private companies and managing corporate governance and compliances.

Board of Directors

Arkady Mandel
MD, Ph.D., D.Sc,

Over 100 original papers and scientific monographs to his name, combined with over 200 international patents. Doctor of Science accreditation majoring in biochemistry, microbiology, immunology, biophysics and photobiology.

Guy Anderson
MDA, CFP®, CIM®

Bring over 20 years of financial experience, currently providing service to Aligned Capital Partners. Prior financial consultant to Investment Planning Counsel.

Kristina Hachey
CPA

Over 20 years of experience in finance and financing in public and private companies and managing corporate governance and compliances. Prior VP Finance at Kensington Capital Partners.

Matthew Perraton
PFP, FMA, FCSI

Brings over 20 years of financial experience, most recently as a Senior Investment Advisor for Jong Perraton Private Wealth Group and previously at TD Waterhouse, BMO Nesbitt Burns and Bank of Nova Scotia.

Randy Bruder

Brings over 30 years of senior management experience as owner and Chief Operations Officer of a Canadian wholesale/retail food processing organization.

CAPITAL STRUCTURE

TSXV:TLT **DATE: 09/01/2021**

Common share price	C$ 0.23	Warrants	72,473,431
Market Capital	C$ 47M	Options	13,370,000
Shares Outstanding	204,275,875	Insider Ownership	~ 10%
Analyst Coverage	Mackie Research Capital Echelon Wealth Partners	Target Price	"$0.80" by Mackie Research "$0.50" by Echelon Wealth

WHY INVEST?

INVEST IN GROWTH	Extremely undervalued stock, tremendous future growth
FULLY FUNDED	The Company successfully completed an oversubscribed marketed public offering on August 22, 2019, raising gross proceeds of CAD $17,250,000, fully funded for Phase II NMIBC Clinical Study.
PATENT PROTECTED	Both the study drug TLD-1433 and device TLC3200 are protected globally with 34 patents at various stages of approval.
STRONG MANAGEMENT TEAM	Seasoned management with extensive pharmaceutical development, manufacturing and clinical research experience.
MET ALL ENDPOINTS IN PHASE 1b	Strong safety profile[16] (mild to moderate side effects) Strong efficacy signal[16] (67% Complete Response at 540 days post treatment)
FDA FAST TRACK DESIGNATION	Granted FDA Fast Track Designation in 2020.[21]
TREATMENT FOR VARIOUS CANCERS	Planning on initiating Phase 1b study for other cancer indications. Strong upside for growth and valuation.

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THANK YOU!

TSXV:TLT **OTCQB:TLTFF**