



Destroying Cancer at the Speed of Light[®]

January 8, 2025

TSXV:TLT | OTCQB:TLTFF

Forward-Looking Statements

Forward-Looking Statements (“**FLS**”) contained in this presentation deal with the future revenue potential, business opportunities and/or strategic initiatives of Theralase® Technologies Inc. (“**Theralase**” or the “**Company**”); including, information, analyses and/or projections as to future corporate developments that reflect the current expectations of the Company’s management.

Such FLS, refer to the Company’s ongoing preclinical, clinical and/or medical device research and development efforts; including, but not limited to assumptions about Theralase®’s: business operations, continued performance on a basis consistent with prior years; ability to access financing from time to time on favourable terms, or at all; ability to retain executive management, senior management, key personnel and/or key consultants or the non-disruptive replacement of them on reasonable terms; reasonably stable operating and/or general administrative expenses; future success of current or proposed research and development initiatives, achievement of commercialization activities and/or milestones; market success of its products over its competition; successful and timely achievement of regulatory, marketing and/or certification approvals; uncontested protection over its intellectual property in the markets in which it does business; market acceptance and/or revenue generation of its products; operation in stable economic environments (Canada, the United States and internationally); ability to access currency, exchange rates, interest rates and/or commodity prices at reasonable rates.

No conclusions as to the successful outcome of the ongoing and planned research and development initiatives 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, future events or achievement of strategic initiatives are FLS. Although Theralase®’s management believes that the expectations reflected in any FLS 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 (“**AIF**”) and 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 such FLS 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 FLS contained in this presentation are made as of the date hereof for the purpose of providing, potential investors with information regarding the Company’s future plans for its business and expected milestones. The Company does not undertake any obligation to update publicly or to revise any of the included FLS, whether as a result of new information, future events or otherwise, unless as required by applicable laws. The FLS 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 analyses of trends in its business. Accordingly, the Company believes that such financial measures may also be useful to potential investors in enhancing their understanding of the Company’s operating or future 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 and all references incorporated are expressed in Canadian dollars, unless otherwise indicated.

The material contained in this document is strictly confidential and the sole property of Theralase®. This presentation does not, and shall not, in any circumstances, constitute an offer to sell or solicitation of an offer to buy any securities of Theralase®, in any jurisdiction.

Theralase® Strategic Objectives

2025

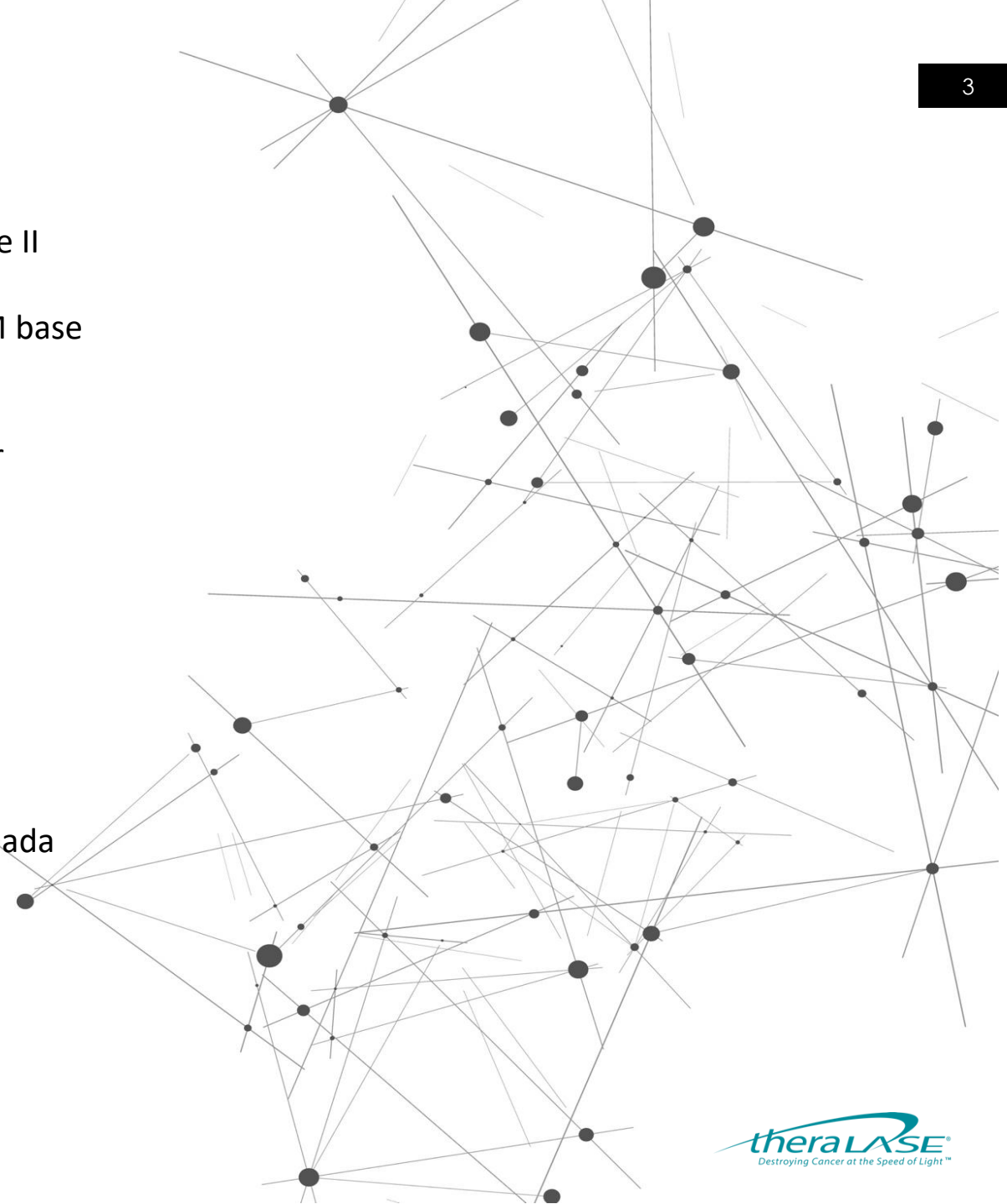
- Secure up to \$CAN 10M in equity financing (completion of Phase II registration clinical study)
- Receive Ontario Securities Commission receipt for a \$CAN 100M base shelf prospectus (raise subsequent funds based on achieving milestones)
- Enroll and treat 25 remaining patients in Phase II bladder cancer registration clinical study (“**Study II**”) (75 patients enrolled and treated to date)

2026

- Soft and hard data lock of Study II
- Submit clinical data to Health Canada and FDA

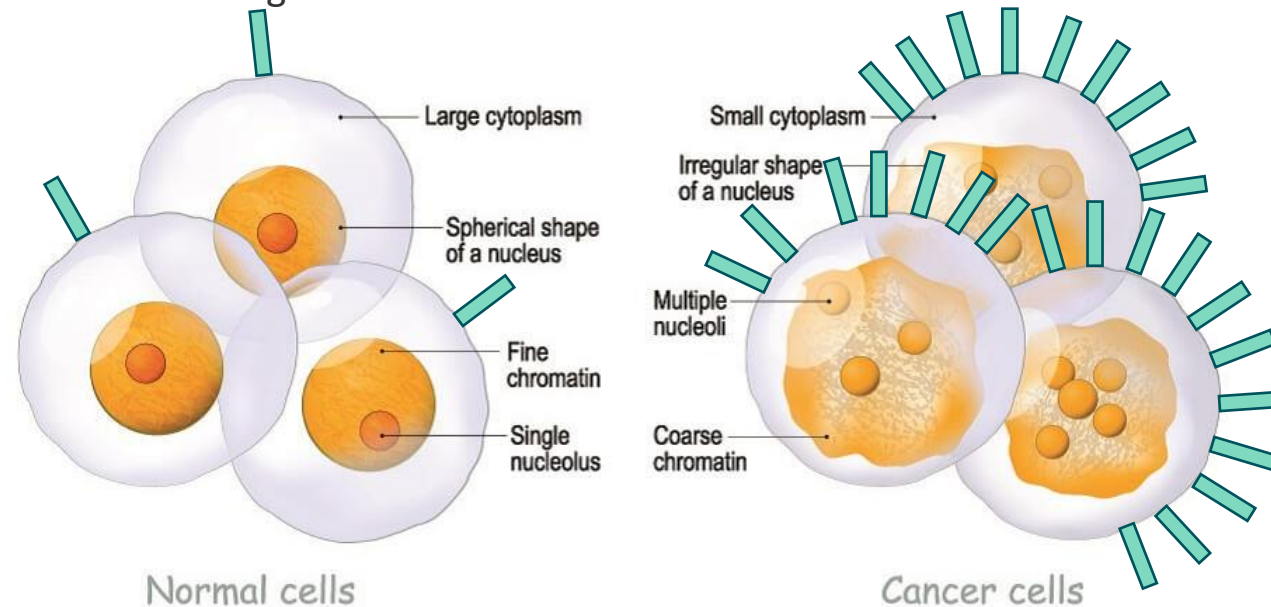
2027

- Marketing approval of Study II for commercial distribution in Canada and the United States

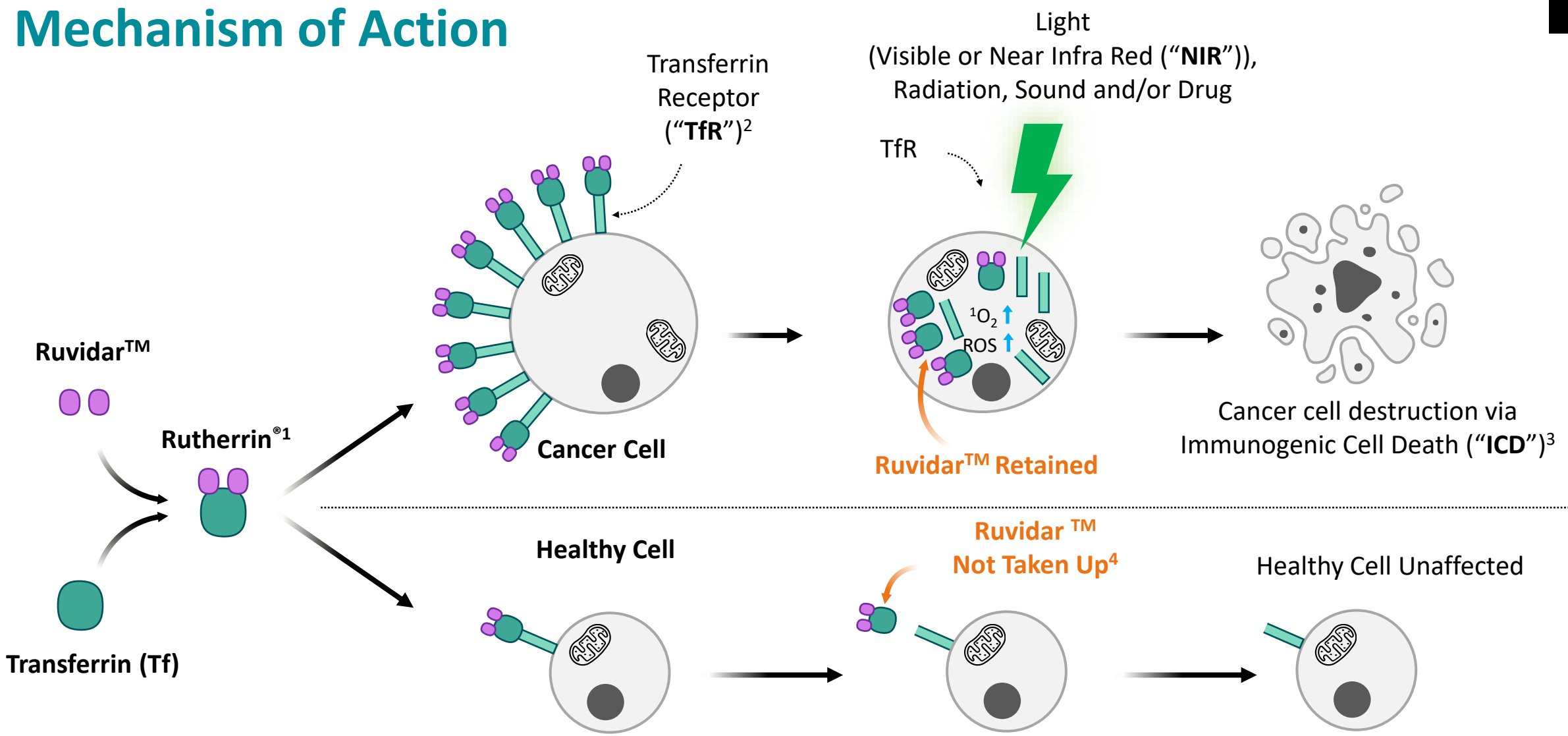


What is Cancer?

- Cancer occurs when cells sustain DNA damage and become immortal.
- Normal cells grow - then die - when given signals to do so.
- Cancer cells ignore these signals and continue to multiply, leading to tumours and eventually death, if not destroyed.
- Each human has approximately 30 trillion cells in our bodies (200 different types, leading to over 100 known types of cancer).
- All cells require iron to grow. Since cancer cells grow at a much higher rate than healthy cells, they require significantly more iron, which is absorbed through their greater number of transferrin receptor sites (■).
- Theralase® exploits this mechanism to target cancer cells for destruction versus health cells.



Mechanism of Action



1) 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

2) Jeong SM, Hwang S, Seong RH. Transferrin receptor regulates pancreatic cancer growth by modulating mitochondrial respiration and ROS generation. <https://doi.org/10.1016/j.bbrc.2016.02.023>

3) Kawamoto M., Horibe T., Kohno M., Kawakami K. A novel transferrin receptor-targeted hybrid peptide disintegrates cancer cell membrane to induce rapid killing of cancer cells. *BMC Cancer.* 2011; 11: 359

4) Seymour GJ, Walsh MD, Lavin MF, Stratton G, Gardiner RA. Transferrin receptor expression by human bladder transitional cell carcinomas. *Urol Res.* 1987;15(6):341-4. doi: 10.1007/BF00265663. PMID: 3324443.



Scientific Research

Small molecule researched and developed over the last 20 years

Optimized to destroy cancer, bacteria and viruses, while sparing healthy cells¹



Pipeline

Primary
Non-Muscle Invasive Bladder Cancer (“**NMIBC**”)²

Secondary
Glioblastoma Multiforme (“**GBM**”)³

Non-Small Cell Lung Cancer (“**NSCLC**”)⁴

Muscle Invasive Bladder Cancer (“**MIBC**”)

Vaccine for various enveloped viruses⁵



Clinical Stage

Phase II NMIBC registration clinical study interim clinical data (75 patients treated, 63 evaluable patients):

61.9% Complete Response (“**CR**”) for the primary objective⁶

43.6% CR duration for the secondary objective⁶

100% safety for the tertiary objective (n=63 patients)⁶

FDA Fast Track Designation Granted⁷



Management Team

Extensive preclinical and clinical research, pharmaceutical drug, laser design, manufacturing and commercialization experience¹

Partnered with leading scientific and clinical researchers from renowned research hospitals¹



Intellectual Property

28 issued patents and 17 patents pending for PDC and laser technology in the United States, Canada and internationally¹

Composition of matter patent expires in US in 2033 (Potentially 2038 with extension)

1) Annual Information Form – September 20, 2023

2) Press Release - Theralase Commences Phase II NMIBC Clinical Study – April 25, 2019

3) Press Release - Theralase® Demonstrates Significant Advantage in Treatment of Brain Tumours – June 11, 2018

4) Press Release - Theralase® Advances Anti-Cancer Technology in Destruction of Human Lung Cancer – March 5, 2018

5) Press Release - February 7, 2022 – Theralase® Demonstrates Proof-of-Concept for Canadian-Made COVID-19 Vaccine

6) Press Release - Theralase® Releases 3Q2024 Financial Statements – November 27, 2024

7) Press Release - Theralase® Granted FDA Fast Track Designation for NMIBC Phase II Clinical Study – November 23, 2020

Intellectual Property¹

Expiry	Patent	Description
April 2033	Metal-Based Thiophene Photodynamic Compounds and Their Use	Protects Ruvidar™ and all associated molecules in the USA, Canada, Russia, China, Europe, Brazil and India
March 2034	Metal-Based Coordination Complexes as Photodynamic Compounds and their Use	Protects Ruvidar™ and all associated molecules in the USA, Canada, Russia, China, Europe, Brazil and India
April 2035	Apparatus and Method for Multiwavelength Photodynamic Therapy	Protects multiwavelength photodynamic therapy in the USA, Canada, Russia, China, Brazil and India
January 2036	Metal-Glycoprotein Complexes and Their Use as Chemotherapeutic Compounds	Protects Rutherrin® and all associated molecules in the USA, Canada, Russia, China, Europe, Brazil and India
July 2036	Photodynamic Compounds and Methods for Activating Them Using Ionizing Radiation and/or Other Electromagnetic Radiation for Therapy and/or Diagnostics	Protects radiation activation of Rutherrin® in the USA
July 2036	Vaccine Containing Cancer Cells Inactivated by Photodynamic Treatment with Metal-Based Coordination Complexes, and Immunotherapy Method Using Same	Protects Ruvidar™ and all associated molecules as a vaccine platform in the USA, Canada, and Europe
October 2036	Fiber Optic Light Delivery, Monitoring and Apparatus Therefore	Protects Study Device in the USA and Canada

1) The listed patents (partial list) do not include the patent extensions afforded in the United States by "The Drug Price Competition and Patent Term Restoration Act" (Hatch-Waxman Act) of 1984 that provides patent holders on approved patented products with an extended term of protection under the patent to compensate for the delay in obtaining Food and Drug Administration ("FDA") approval.

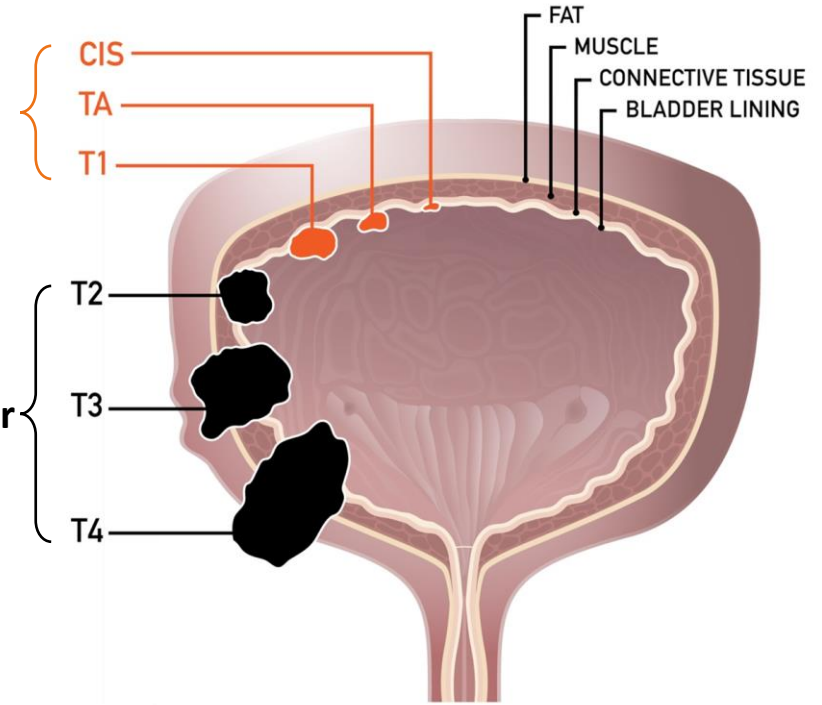
Bladder Cancer

9th Most Common Cancer Worldwide

4th leading cancer in men¹

Non-Muscle Invasive Bladder Cancer ("NMIBC")

Muscle Invasive Bladder Cancer ("MIBC")



83,190 in US¹, 12,300 in Canada², 200,000 in Europe³ (Total: 295,490)
614,298 new cases of bladder cancer per year worldwide in 2022⁴

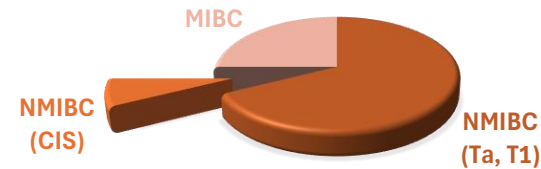
1) Key Statistics for Bladder Cancer | American Cancer Society (2024)
2) Bladder cancer statistics | Canadian Cancer Society (2024)
3) Bladder Cancer: The Forgotten Cancer.2022. [Bladder Cancer: The Forgotten Cancer - Uroweb](#)
4) International Agency for Research on Cancer (IARC). Globocan2022. [GLOBOCAN 2022: Bladder cancer 9th most common worldwide - World Bladder Cancer Patient Coalition](#)

Current Treatment Landscape

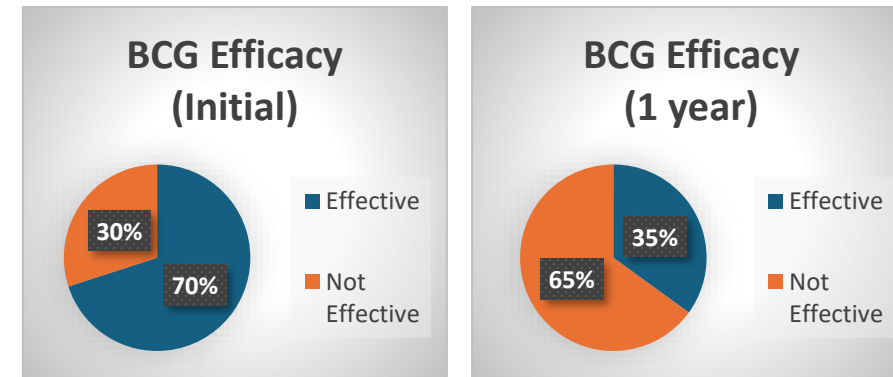
Bacillus Calmette Guérin (“**BCG**”) - Standard Of Care (“**SOC**”) treatment for NMIBC



75 to 80% of bladder cancers classified as NMIBC^{1,2}, with 10% of NMIBC classified as Carcinoma In-Situ (“**CIS**”)^{2,3}



Initial efficacy of BCG up to 70%^{2,4} (30% failure rate); however, BCG is not durable^{5,6} with 50% of BCG treated patients recur within 1 year⁷ (65% BCG-Unresponsive within 1 year⁶)



1) Ripoll, J., Ramos, M., Montañó, J. et al. Cancer-specific survival by stage of bladder cancer and factors collected by Mallorca Cancer Registry associated to survival. BMC Cancer 21, 676 (2021). <https://doi.org/10.1186/s12885-021-08418-y>
<https://seer.cancer.gov/statfacts/html/urinb.html>(accessed 04-Dec-2019)

2) [High-risk nonmuscle invasive bladder cancer - Mayo Clinic](#) – 2021

3) Llano A, Chan A, Kuk C, Kassouf W, Zlotta AR. Carcinoma In Situ (CIS): Is There a Difference in Efficacy between Various BCG Strains? A Comprehensive Review of the Literature. Cancers (Basel). 2024 Jan 5;16(2):245. doi: 10.3390/cancers16020245. PMID: 38254736; PMCID: PMC10813486.

4) Tang DH, Chang SS. Management of carcinoma in situ of the bladder: best practice and recent developments. Ther Adv Urol. 2015 Dec;7(6):351-64. doi: 10.1177/1756287215599694. PMID: 26622320; PMCID: PMC4647140. Steinberg RL, et al. Bladder Cancer 2015;1:105-126

5) Nepple KG et al. J Urol. 2010 Nov; 184:1915-1919

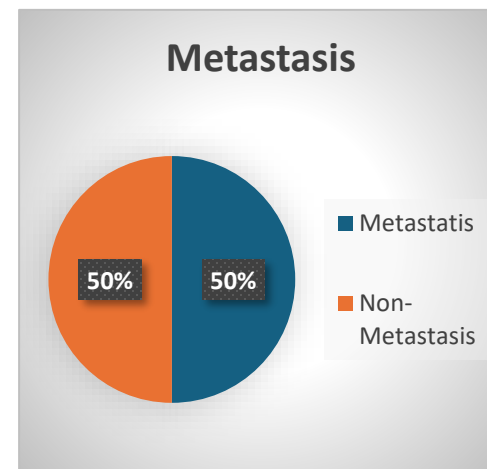
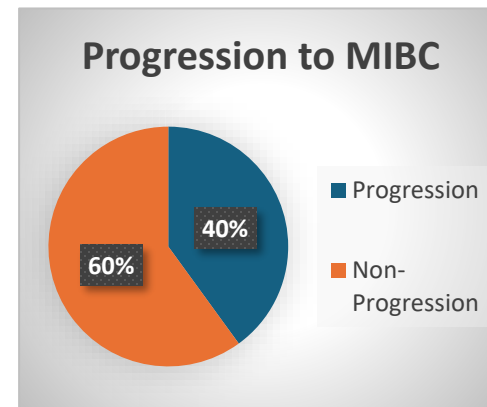
6) Hussain MHA. J Clin Oncol. 2009;27:5680-5684

7) Chang SS. AUA/SUO guideline [manuscript]. 2016

Current Treatment Landscape

40% of patients progress from BCG-Unresponsive CIS to MIBC within 5 years^{1,2,3}

50% of patients who progress, develop metastatic disease, resulting in death in nearly all cases



Radical cystectomy is the current standard of care for BCG-Unresponsive CIS

There is a critical need for effective bladder-sparing therapies for BCG-Unresponsive NMIBC⁴

1) Hussain MHA. J Clin Oncol. 2009;27:5680-5684

2) van den Bosch S. Eur Urol. 2011;60:493-500

3) Kamat AM, et al. Lancet 2016;388:2976-2810

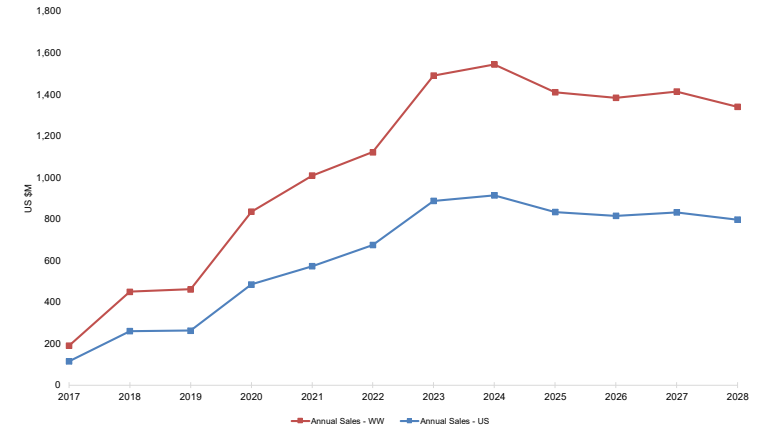
4) Li R, Sundi D, Zhang J, Kim Y, Sylvester RJ, Spiess PE, Poch MA, Sexton WJ, Black PC, McKiernan JM, Steinberg GD, Kamat AM, Gilbert SM. Systematic Review of the Therapeutic Efficacy of Bladder-preserving Treatments for Non-muscle-invasive Bladder Cancer Following Intravesical Bacillus Calmette-Guérin. Eur Urol. 2020 Sep;78(3):387-399. doi: 10.1016/j.eururo.2020.02.012. Epub 2020 Mar 4. PMID: 32143924; PMCID: PMC7771323.

Global Market Opportunity

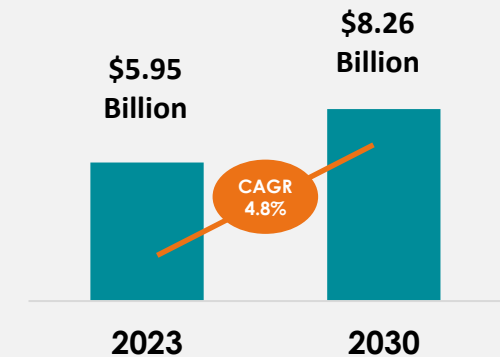
39,929⁶ x \$USD 200,000¹ = \$USD 8 Billion Annually

- Patients willing to pay between \$USD 50k to \$USD 150k per Quality Adjusted Life Year (“**QALY**”) for treatment (2 Years = \$USD 100k to \$USD 300k (Average = \$USD 200k)¹
- Bladder cancer patients face poor Quality of Life after radical cystectomy - high morbidity and high mortality²
- From diagnosis to death, it costs between \$USD 89,000 to \$200,000 to treat a bladder cancer patient³
- Bladder cancer has the highest lifetime treatment costs per patient of all cancers⁴

KEYTRUDA Sales - Bladder Cancer⁷



Global Bladder Cancer Market⁵



1) Willingness to pay per QALY for competitor drug, Pembrolizumab. Source: Cost-effectiveness of Pembrolizumab in Second-line Advanced Bladder Cancer, July 2018

2) Tyson MD 2nd, Barocas DA. Quality of Life After Radical Cystectomy. Urol Clin North Am. 2018 May;45(2):249-256. doi: 10.1016/j.ucl.2017.12.008. Epub 2018 Feb 21. PMID: 29650140.

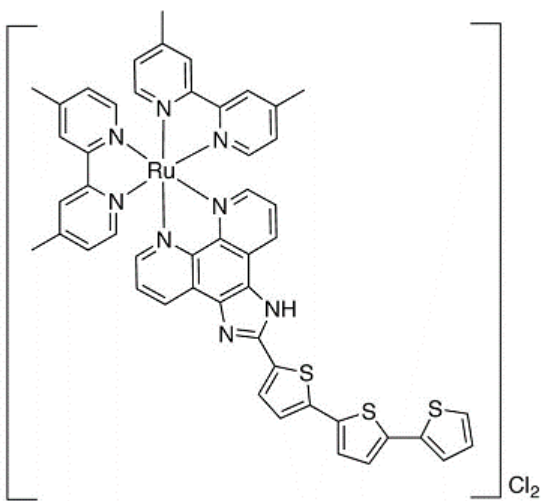
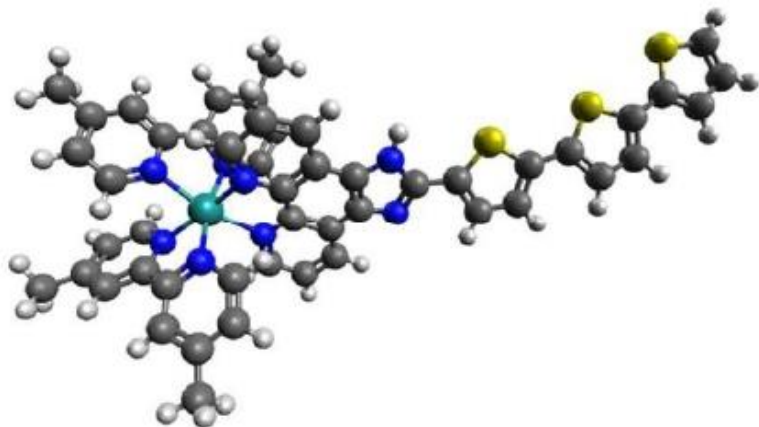
3) Sievert KD, Amend B, Nagele U, et al. Economic aspects of bladder cancer: what are the benefits and costs?. World J Urol. 2009;27(3):295-300. doi:10.1007/s00345-009-0395-z

4) Ida K, Miyake M, Murakami K et al. Bacillus Calmette-Guérin-unresponsive non-muscle invasive bladder cancer outcomes in patients without radical cystectomy. Int J Clin Oncol. 2021 Nov;26(11):2104-2112. doi: 10.1007/s10147-021-01988-8. Epub 2021 Jul 27. PMID: 34313904

5) Bladder Cancer Market: Global Industry Analysis and Forecast (2024 -2030). Maximize Market Research. March 2024

6) World Cancer Research Fund International. Bladder cancer statistics. www.wcrf.org/cancer-trends/bladder-cancer-statistic. (614,298 x 10% CIS x (30% Initial Failure Rate + (70% x 50% recurrence)) = 39,929)

Ruvidar™ (TLD-1433)



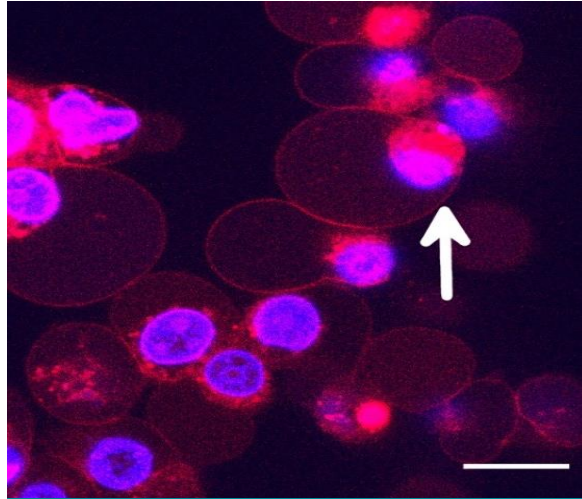
- Ruthenium-based small molecule
- Designed to destroy solid core tumours (i.e.: bladder, brain, lung and breast) when absorbed by the cancer cell
- Activity is significantly enhanced when energy activated ¹
- Good Manufacturing Practices (“**GMP**”) manufactured in kilogram batches with high yield and high purity (98%)
- < 0.5 grams used for NMIBC Study Treatment

1) 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

Study Treatment



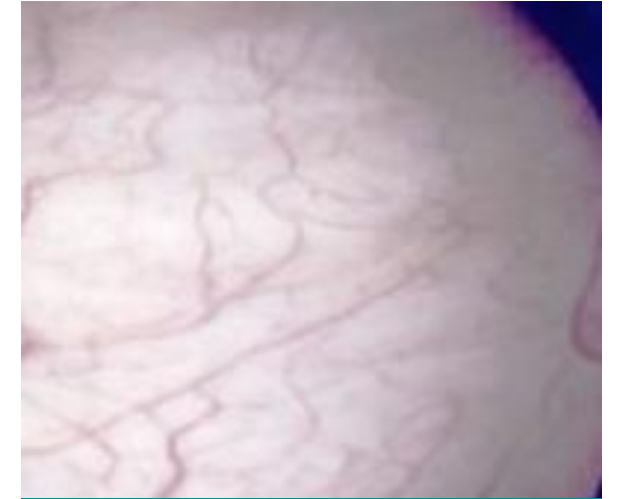
Ruvidar™ instilled in bladder via catheter demonstrating absorption into CIS ¹



Ruvidar™ localizes preferentially inside bladder cancer cells ^{2,3}



Green laser light activates Ruvidar™ through fiber optics



Bladder cancer cells destroyed by the production of singlet oxygen and / or Reactive Oxygen Species ("ROS")²

1) Phase Ib NMIBC clinical study patient cystoscopy photograph, after instillation of Study Drug, prior to TLC-3200 Light Activation, showing TLD-1433 localization to bladder cancer tumours

2) Kalinina S, Brey Mayer 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.

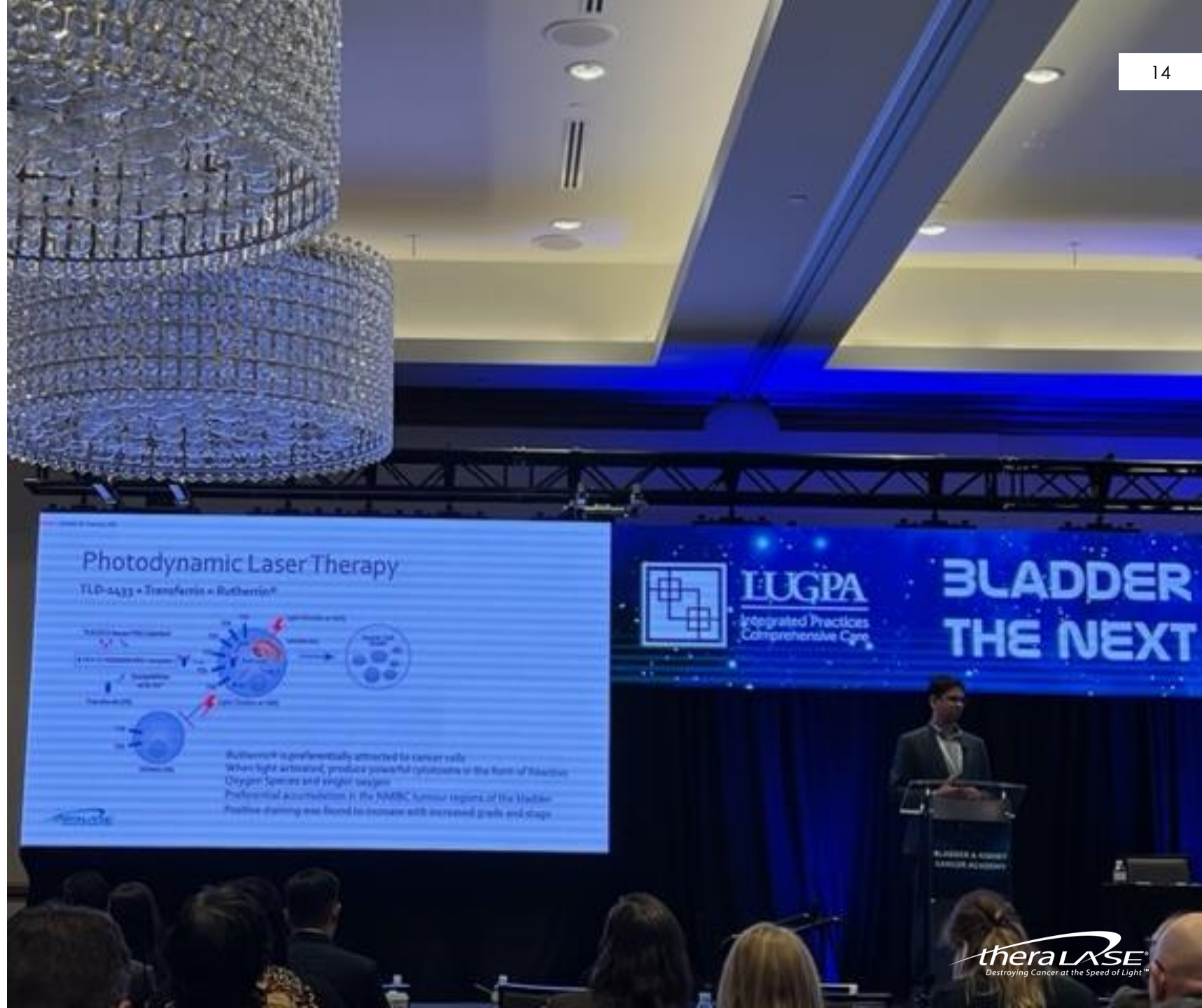
3) Seymour GJ, Walsh MD, Lavin MF, Strutton G, Gardiner RA. Transferrin receptor expression by human bladder transitional cell carcinomas. Urol Res. 1987;15(6):341-4

Clinical Target

A clinically meaningful initial Complete Response Rate (“CRR”) for Carcinoma In-Situ (“CIS”) or recurrence-free rate (for papillary tumors) of at least:

- 50% at 6 months
- 30% at 12 months
- 25% at 18 months

is recommended. (International Bladder Cancer Group (“IBCG”))¹



Photodynamic Laser Therapy

TLD-4433 + Transferrin + Ruthenium³⁺



Ruthenium is preferentially attracted to cancer cells
When light activated, produce powerful cytotoxins in the form of Reactive Oxygen Species and singlet oxygen
Preferential accumulation in the NMIBC tumour regions of the bladder
Positive staining was found to increase with increased grade and stage

1) Kamat AM et al. J Clin Oncol. 2016; 34: 1935-1944

Phase II NMIBC Clinical Study¹

Study design consistent with FDA Guidance:	Primary Endpoint	Secondary Endpoint	Tertiary Endpoint
<p>“In BCG-Unresponsive NMIBC, a single-arm clinical trial with Complete Response Rate (“CRR”) and duration of response as the primary endpoint can provide primary evidence of effectiveness to support a marketing application”²</p>	<p>Initial Efficacy (CR achieved at any point in time)</p> <ol style="list-style-type: none">1) Negative cystoscopy and negative cytology2) Positive cystoscopy (low grade disease) and negative cytology)3) Negative cystoscopy and positive cytology (if random bladder biopsies are negative)	<p>Duration of Efficacy (12 months duration of CR after diagnosis of initial CR)</p> <p>15 months from primary Study Procedure</p> <p>Patient followed for up to 36 months to demonstrate duration of response</p>	<p>Safety Incidence and severity of Adverse Events (“AEs”) > Grade 3, directly related to the Study Drug or Study Device, that do not resolve within 450 days post primary study procedure</p> <p>Grade 1 = Mild Grade 2 = Moderate Grade 3 = Severe Grade 4 = Life-threatening Grade 5 = Death</p>

1) Clinical Protocol TLD-1433-2 (Version 12.0). December 6, 2023

2) “BCG-Unresponsive Nonmuscle Invasive Bladder Cancer: Developing Drugs and Biologics for Treatment – Guidance for Industry”. February 2018. www.fda.gov/media/101468/download

Study Procedure

- 75 to 100 patients with BCG-Unresponsive NMIBC CIS
- 14 clinical study sites currently enrolling patients in Canada and the United States (Up to 15 in 1Q2025)
- Patient provided primary Study Procedure on Day 0 (1 hour of drug instillation, 1 hour of light activation)
- Outpatient procedure
- Surgeon has the option to deliver up to 2 more re-induction Study Procedures, if the patient recurs
- Patient followed up quarterly for 2 years and then semi-annually for 1 additional year (3 years in total)

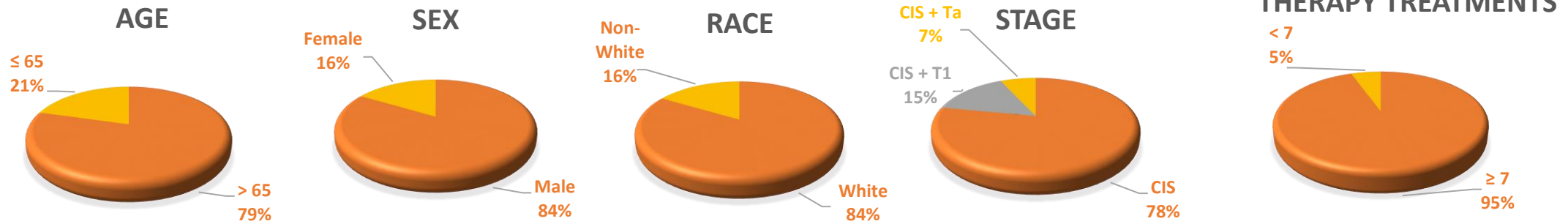


THE UNIVERSITY
OF BRITISH COLUMBIA



Phase II NMIBC Interim Clinical Data¹

Patient Demographics



Ruvidar™ has been demonstrated to achieve complete responses in patients, previously treated with and who failed therapy with: BCG, systemic PD-L1 immunotherapy, chemotherapy, intravesical oncolytic viruses and intravesical chemotherapies (gemcitabine with or without docetaxel).

1) Press Release - Theralase® Releases 3Q2024 Financial Statements – November 27, 2024

Phase II NMIBC Interim Clinical Data¹

Performance to Primary Endpoint:

	Primary Endpoint Performance (CR at any Point in Time)		
	#	%	Confidence Interval (95%)
Complete Response ("CR")	39	61.9%	[42.5, 81.3]
Total Response (CR and IR)	43	68.3%	[47.9, 88.7]

Performance to Secondary Endpoint:

	Secondary Endpoint Performance (Duration of CR) (450 Days)		
	#	%	Confidence Interval (95%)
Complete Response ("CR")	17	43.6%	[22.9, 64.3]

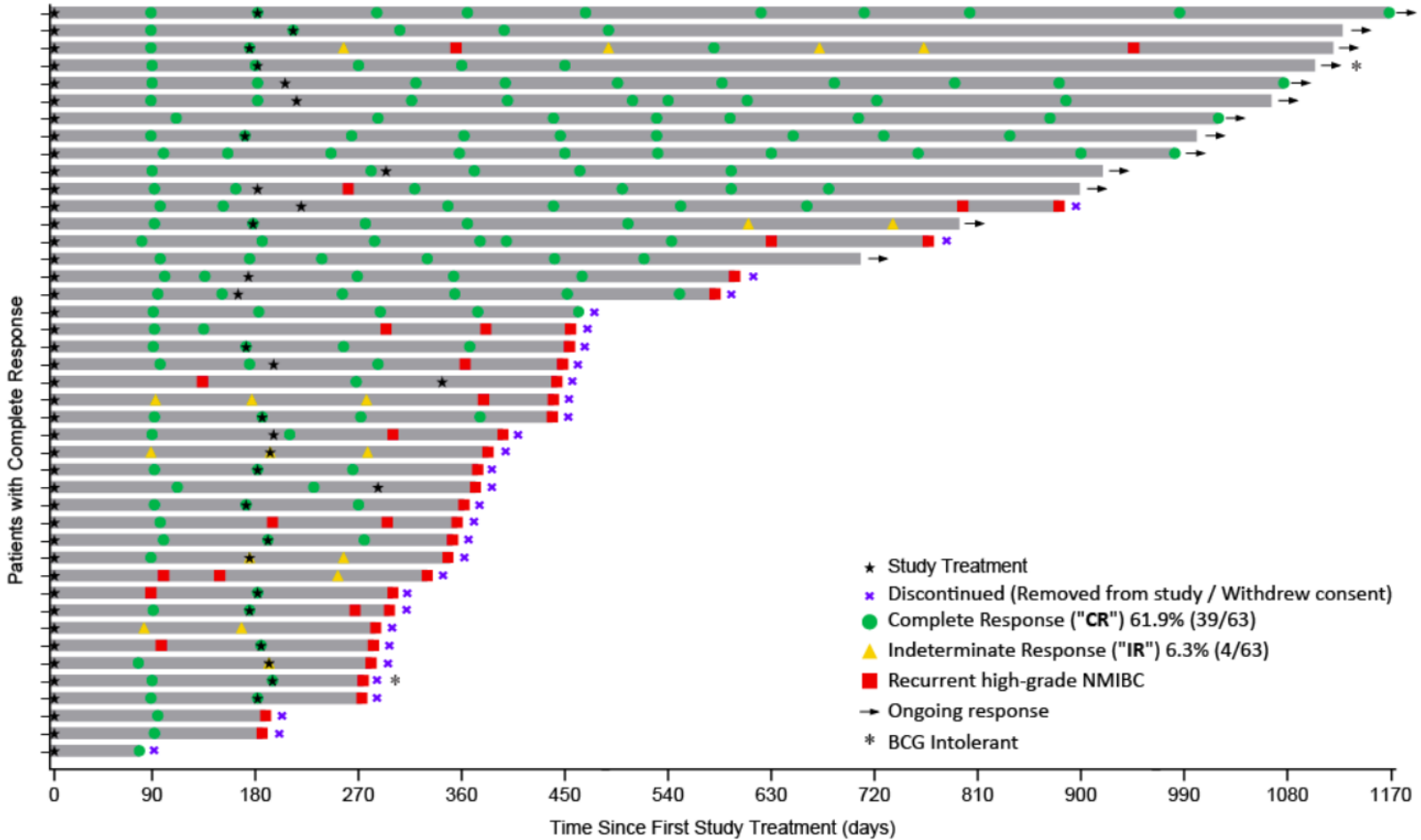
Performance to Tertiary Endpoint:

	Tertiary Endpoint Performance (Safety) (450 Days)	
	#	%
Safety	63	100.0%

Note: The data analysis is an analysis of the clinical data accrued to date and does not intend to represent a tendency or portray any conclusion as to the effectiveness, duration or safety of the investigational treatment.

Note: Indeterminate Response ("IR") is defined as negative cystoscopy (no evidence of Urothelial Cell Carcinoma ("UCC") in the bladder) and positive / suspicious urine cytology (detection of cancer in the urine, without a negative confirmatory bladder biopsy, suggesting UCC in the renal system other than the bladder).

Phase II NMIBC Interim Clinical Data¹

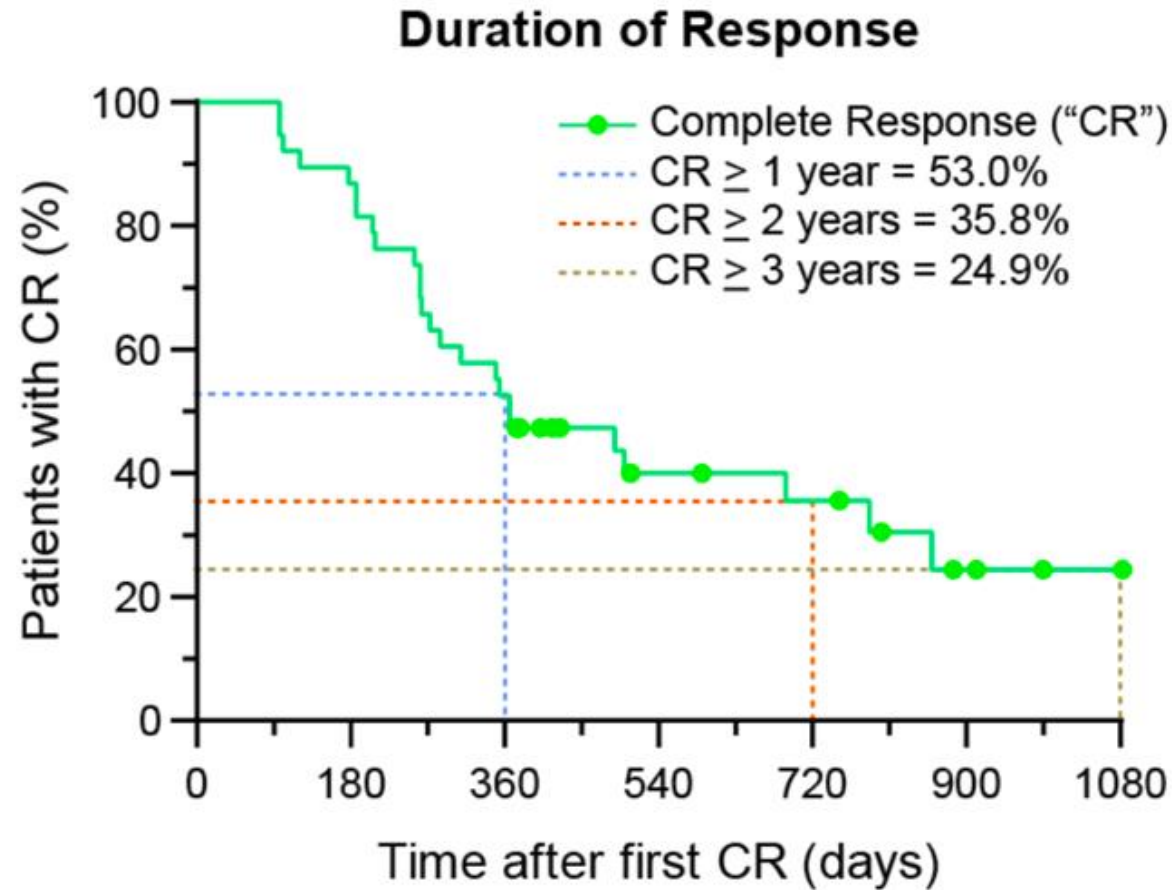


The Swimmer’s plot is a graphical representation of the interim clinical results (n=43) for patients who achieved a CR or IR at any point in time and their response up to and including ≥ 3 years (1080 days), graphically demonstrating a patient’s response to a treatment over time. As can be seen in the plot, clinical data is still pending for patients (indicated by arrows), who have demonstrated an initial CR at 90 days and continue to demonstrate a duration of that response.

1) Press Release - Theralase® Releases 3Q2024 Financial Statements – November 27, 2024



Phase II NMIBC Interim Clinical Data¹



The interim clinical data demonstrates that patients consenting to participate in Study II have a 61.9% chance of achieving CR. According to the KM Curve, if CR is obtained, then the patient has a $\geq 53.0\%$, $\geq 35.8\%$ and $\geq 24.9\%$ chance of remaining cancer free for 1, 2, and 3 years, respectively.

1) Press Release - Theralase® Releases 3Q2024 Financial Statements – November 27, 2024

Serious Adverse Events

For 75 patients treated in Study II, there have been 15 Serious Adverse Events (“SAEs”) reported:

- 1 – Grade 1 (resolved within 9 days)
- 3 – Grade 2 (resolved within 1, 1 and 33 days, respectively)
- 7 – Grade 3 (resolved within 1, 2, 3, 4, 4, 82 and unknown days, respectively)
- 3 – Grade 4 (resolved within 3, 6 and 8 days, respectively)
- 1 – Grade 5

Theralase® believes all SAEs reported to date are unrelated to the Study Drug or Study Device.

Note: A SAE is defined as any untoward medical occurrence that at any dose: Is serious or life-threatening, requires inpatient hospitalization or prolongation of existing hospitalization, results in persistent or significant disability/incapacity, is a congenital anomaly/birth defect or results in death.

FDA Approved Drugs

Company/ FDA Approved Drug (Date of Approval)	Number of Patients	Initial Complete Response ("CR")	Duration of Response			Pros	Cons	Annual Cost (\$USD 000s)	Market Capitalization (\$USD Billion)
			(12 months)	(24 months)	(36 months)				
IBCG Guidelines (extrapolated)	92	60.0%	30.0%	20.0%	15.0%				
Immunity Bio BCG + N803 ¹ (Intravesical SL-15 agonist) (2024)	77	62.3%	59.5%	40.0%	Not Reported	High initial efficacy and duration of efficacy.	Combinational product, combined with standard of care TICE BCG, which is in shortage in the US. BCG contributes efficacy in the patient population.	\$215 (Once a week for 6 weeks) (\$35.8 per dose + BCG)	\$1.9
Ferring Adstiladrin ² (2023)	98	51.0%	23.5%	18.4%	12.8%	First intravesical oncologic virus approved for BCG-Unresponsive NMIBC CIS.	Median Duration Of Response ("DOR") of 9.7 months. Contraindicated for patients, who are immunosuppressed or immune-deficient. Associated with increased glucose levels and increased serum creatinine.	\$211 (Once every 3 months) (\$60 per installation)	\$2.2 (Annual Revenue)
Merck Pembrolizumab (Keytruda*) ^{3,4} (2020)	96	40.6%	18.8%	9.4%	0%	First immunotherapy drug approved for BCG-Unresponsive NMIBC CIS.	Patients must have PD-L1 expression to generate a response. Only applicable to 20 to 40% of patient population. Associated with serious adverse events. Not uro-oncologist recommended.	\$150 (Every 3 weeks for up to 24 months)	\$319
Endo Pharmaceuticals Valrubicin (Valstar) ^{5,6,7} (1981)	90	21%	16.4%	Not Reported	Not Reported	First intravesical drug approved by the FDA for NMIBC.	Not a BCG-Unresponsive population. Not uro-oncologist recommended.	\$55 (Once a week for 6 weeks)	\$0.00014

1) Press Release – ImmunityBio Announces FDA Approval of ANKTIVA®, First-in-Class IL-15 Receptor Agonist for BCG-Unresponsive Non-Muscle Invasive Bladder Cancer – April 22, 2024

2) FDA Press Announcement. FDA Approves First Gene Therapy for the Treatment of High-Risk, Non-Muscle-Invasive Bladder Cancer.

3) Balar, A.V., et al., Pembrolizumab monotherapy for the treatment of high-risk non-muscle-invasive bladder cancer unresponsive to BCG (KEYNOTE-057): an open-label, single-arm, multicentre, phase 2 study. *Lancet Oncol*, 2021. **22**(7): p. 919-930.

4) Press Release – Merck's KEYTRUDA® (pembrolizumab) Showed a Complete Response Rate of Nearly 40 Percent in Patients with High-Risk Non-Muscle Invasive Bladder Cancer (NMIBC) Unresponsive to Standard of Care – October 20, 2018

5) Steinberg G, Bahnsen R, Brosman S, Middleton R, Wajsman Z, Wehle M. Efficacy and safety of valrubicin for the treatment of Bacillus Calmette-Guerin refractory carcinoma in situ of the bladder. The Valrubicin Study Group. *J Urol*. 2000 Mar;163(3):761-7. Erratum in: *J Urol*. 2008 Jan;179(1):386. PMID: 10687972.

6) Dinney CPN et al. Intravesical valrubicin in patients with bladder carcinoma in situ and contraindication to or failure after bacillus Calmette-Guérin. *Urol Oncol*. 2013 Nov;31(8):1635-42

7) Kim HS, Seo HK. Emerging treatments for bacillus Calmette-Guérin-unresponsive non-muscle-invasive bladder cancer. *Investig Clin Urol*. 2021 Jul;62(4):361-377. doi: 10.4111/icu.20200602. Epub 2021 May 27. PMID: 34085791; PMCID: PMC8246016.

*KEYTRUDA® is a registered trademark of Merck & Co. Inc.

Competitive (Non-FDA Approved) Drugs Versus Ruvidar™

Competitive Drug (Non-FDA Approved)	Number of Patients	Initial Complete Response ("CR")	Duration of Response			Pros	Cons	Annual Cost (\$USD 000s)	Market Capitalization (\$USD Billion)
			(12 months)	(24 months)	(36 months)				
IBCG Guidelines (extrapolated)	92	60.0%	30.0%	20.0%	15.0%				
Theralase® Ruvidar™¹ (Estimated for 2027)	63/100	61.9% CR (68.3% TR) (Interim)	53.0% (KM Curve estimated) 43.6% CR (Interim)	35.8% (KM Curve estimated) Pending	24.9% (KM Curve estimated) Pending	High initial efficacy. 3/5 of patients achieve CR after only 1 study procedure. Demonstrated 8 years shelf life of Ruvidar™	None.	\$Unknown (Single procedure)	\$0.6
CG Oncology Crestostimogene grenadenorepvec² (Intravesical oncolytic immunotherapy) (Estimated for 2026)	105	74.5%	63.5% (KM Curve estimated) 50.0%	56.6% (KM Curve estimated) 30.5%	Not Reported	High initial efficacy	Biological drugs are prone to manufacturing issues. Gene therapy is not readily adopted by all uro-oncologists due to complexities. Only applicable to 25% of high-grade patient population, who exhibit retinoblastoma negative protein.	\$Unknown (6 weekly treatments, then 6 weekly treatments or 3 weekly treatments based on response, then 3 weekly treatments every 3 months for first 12 months, every 6 months for next 24 months)	\$2.2
Johnson and Johnson Slow-Release Gemcitabine³ (Intravesical chemotherapy) (Estimated for 2026)	85	83.5%	57.4% (KM Curve estimated) 25.0%	Not Reported	Not Reported	High initial efficacy	Gemcitabine may result in little to no difference in the risk of disease progression compared to saline. Serious adverse events associated with chemotherapy. Median Duration Of Response ("DOR") of 30 weeks. 26.4% treatment related discontinuation.	\$Unknown (Dosed every 3 weeks for 24 weeks, followed by every 12 weeks through week 96)	\$372.3
enGene EG-70 (detaIimogene vorapIasmid) ⁴ (Non-viral gene therapy) (Estimated for 2027)	21/100	71% (Interim)	Not Reported	Not Reported	Not Reported	High initial efficacy	Phase II clinical study just commenced.	\$Unknown Unknown treatment schedule	\$0.3

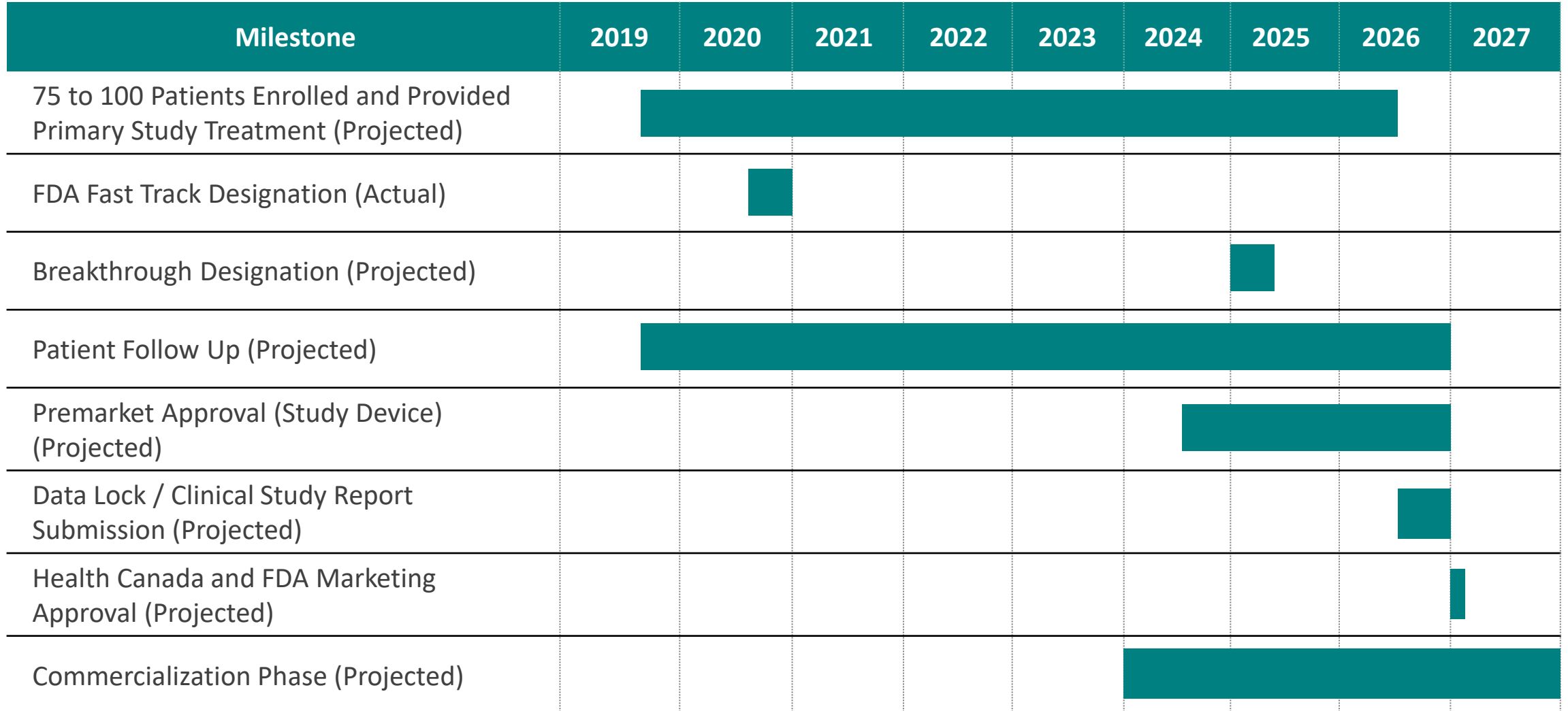
1) Press Release - Theralase® Releases 3Q2024 Financial Statements – November 27, 2024

2) CG Oncology Website – December 5, 2024

3) TAR-200 monotherapy shows greater than 80% complete response rate in patients with high-risk non-muscle-invasive bladder cancer. September 15, 2024

4) Press Release – enGene Reports First Quarter 2024 Financial Results and Recent Corporate Progress – March 11, 2024

Regulatory Timeline



Regulatory Strategy: Study Drug (IND / NDA) - Study Device (PMA) – Drug / Device Combination

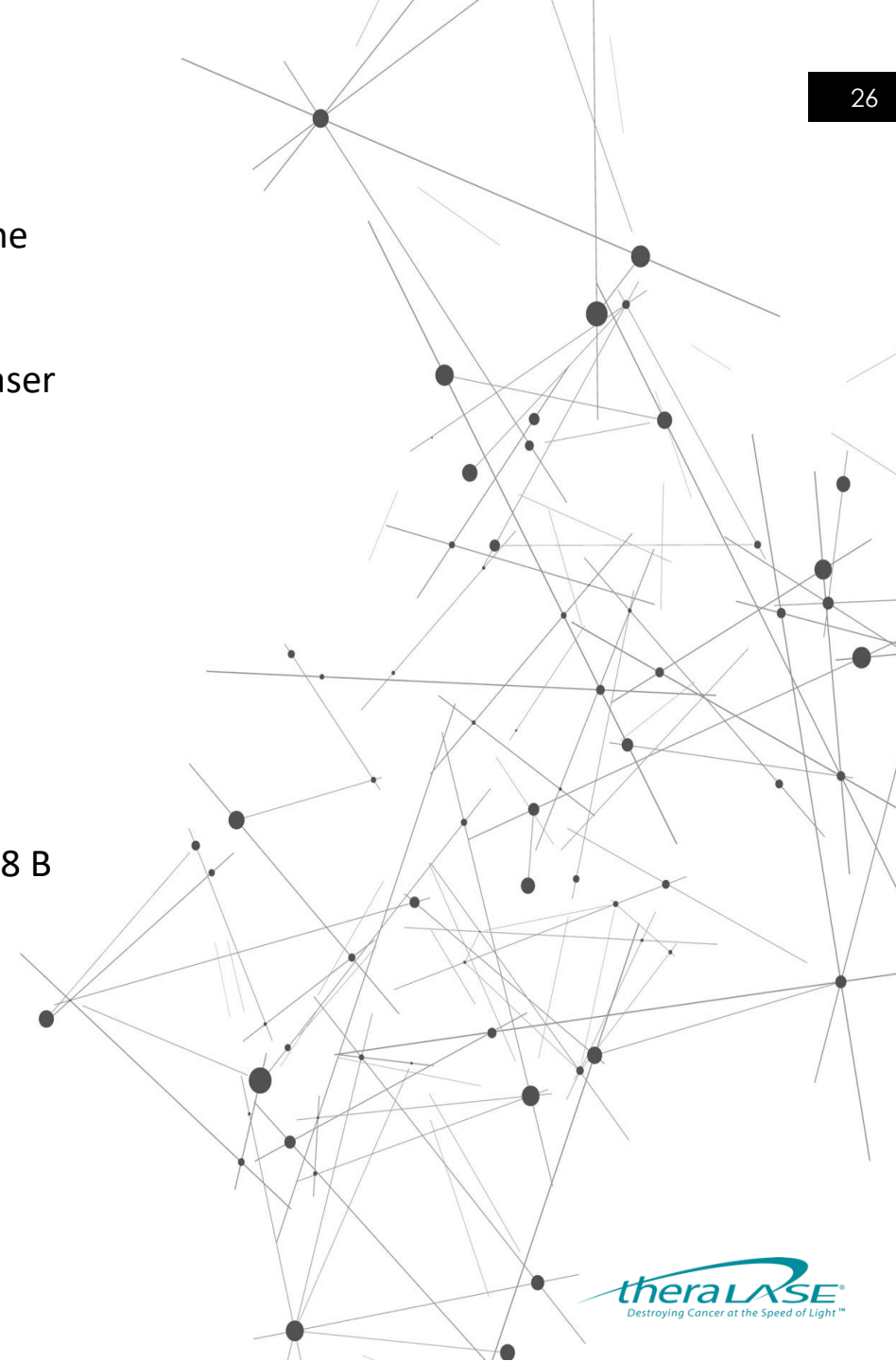
Capital Structure

TSXV:TLT		01/08/2025	
Common share price	\$CAN 0.31	Warrants	42,280,510
Market Capital	\$CAN 76.8 M	Options	19,620,000
Shares Outstanding	247,780,369	Finder Units	18,864
Fully Diluted	309,699,743	Insider Ownership	12.75% Fully Diluted



Investment Highlights

- Next standard of care treatment for bladder cancer (9th most common cancer in the world (4th in men))
- Unique value proposition, combining a patented small molecule and proprietary laser system
- Able to directly destroy bladder cancer, leaving healthy bladder cells intact and providing a secondary response through activation of the immune system
- 75 patients enrolled and provided the primary study treatment in an FDA Phase II registration clinical study
- Pending Health Canada and FDA approval in 2026, Theralase[®] will gain access to Canada, US and international bladder cancer markets estimated to be up to \$USD 8 B annually
- Best in class duration of response versus FDA approved drugs and drugs currently under clinical investigation





Contact Information

Roger DuMoulin-White, B.Sc., P.Eng., Pro.Dir.
President and Chief Executive Officer
rwhite@theralase.com, 416.699.5273 x 225

Arkady Mandel, M.D., Ph.D., D.Sc.
Chief Scientific Officer
amandel@theralase.com, 416.699.5273 x 260

Kristina Hachey, B.B.M., C.P.A.
Chief Financial Officer
khachey@theralase.com, 416.699.5273 x 224

Toll Free: 1.866.THE.LASE (843.5273)
Work: 416.699.LASE (5273)
www.theralase.com