Management's Discussion and Analysis of Financial Condition and Operations

The following Management's Discussion and Analysis ("**MD&A**"), of **Theralase® Technologies Inc**. ("**Theralase®**" or the "**Company**") should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2024.

This MD&A has been filed in accordance with the provisions of National Instrument 51-102 (*Continuous Disclosure Obligations*). Additional information relating to the Company can be found on Sedar at www.sedar.com .

This MD&A is prepared as of March 11th, 2025.

The Company's common shares are listed for trading on the TSX Venture Exchange (**Symbol: TLT**) and trade on the OTCQB marketplace (**Symbol: TLTFF).**

Forward Looking Statements:

The information provided herein is intended to provide a general outline of the operations of the Company*. This document contains certain forward-looking statements and information (collectively, "**Forward-Looking Statements**" or "**FLS**") within the meaning of applicable securities laws. FLS are statements and information that are not historical facts, but instead; include, financial projections and estimates; statements regarding plans, goals, objectives, intentions or expectations with respect to Theralase®'s future business, operations, research and development; including: anticipated timelines for the commencement or completion of certain activities, enrolment of patients in clinical studies or other information in future periods. FLS, which may be identified by words including, without limitation, "**believe**", "**anticipate**", "**should**", "**could**", "**would**", "**estimate**", "**expect**", "**plan**", "**will**", "**intend**", "**may**", "**pending**", "**objective**", "**exploring**", "**potential**", "**project**", "**possible**" and other similar expressions, and the negative of such expressions, are intended to provide information about management's current plans and expectations regarding future operations.*

FLS in this MD&A; include, but are not limited to, statements with respect to: future revenue projections, business initiatives or their timing; the competitive environment; business strategic objectives; research, development or commercialization plans, acquisition or disposition of assets; preclinical or clinical studies: status, timing or strategies; the supply or demand of products or services; the ability to meet current or future financial obligations; the ability to execute on business or growth strategies; management's assessment of business strategies or operations; the intention or ability to pay dividends on the common shares of the Company.

Readers are cautioned not to place undue reliance on FLS since there can be no assurance that the plans, intentions or expectations, upon which they are based will occur. By their nature, FLS involve numerous assumptions, known or unknown, risks or uncertainties, both general or specific, that contribute to the possibility that the predictions, forecasts, projections or other things contemplated by the FLS will not occur. Such FLS or information are based on a number of assumptions, which may prove to be incorrect; including, those assumptions listed below or those discussed elsewhere in this MD&A. Some of the assumptions made by Theralase®, upon which such FLS are based, include; but are not limited to, assumptions about: the ability to continue as a going concern, the business operations continuing on a basis consistent with prior years; the ability 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 or general administrative expenses; current or future success of research, development or commercialization initiatives; the ability to achieve development or commercialization milestones; market competition; the ability to secure all required regulatory, government or certification approvals; geographic protection over the intellectual property in the markets in which Theralase® does business; market acceptance or revenue generation of products under development; the stability of current economic or business conditions, the strength and/or stability of the economy in Canada, the United States or elsewhere; currency, exchange or interest rates or commodity prices being reasonably stable at current rates.

FLS reflect current expectations of management regarding future events or operating performance as of the date of this MD&A. Such information: involves significant risks or uncertainties; should not be read as guarantees of future performance or results; or will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the FLS; including, but not limited to, the risks related to: limited operating history; working capital or capital resources; ability to retain key personnel; protection of intellectual property; competition; implementation delays; strategic alliances; trade secret protection; product deficiencies; dependence on third party suppliers; volatility of share price; regulatory risks; early stage of product development; reliance on third parties; clinical study risk; clinical study timing delays; patient enrolment; failure to achieve milestones; currency risk; material weakness in internal controls over financial reporting; credit risk; product liability or clinical study liability. See "Risk and Uncertainties".

ALTHOUGH THE FLS CONTAINED IN THIS MD&A ARE BASED UPON WHAT THERALASE®'S MANAGEMENT BELIEVES TO BE REASONABLE ASSUMPTIONS, THERALASE® CANNOT ASSURE READERS THAT ACTUAL RESULTS WILL BE CONSISTENT WITH SUCH INFORMATION. FLS REFLECT MANAGEMENT'S CURRENT BELIEFS AND ARE BASED ON INFORMATION CURRENTLY AVAILABLE TO THERALASE®. READERS OF THIS MD&A ARE CAUTIONED NOT TO PLACE UNDUE RELIANCE ON THERALASE®'S FLS BECAUSE A NUMBER OF FACTORS, SUCH AS THOSE REFERRED TO IN THE PARAGRAPHS ABOVE, COULD CAUSE ACTUAL FUTURE RESULTS, CONDITIONS, ACTIONS OR EVENTS TO DIFFER MATERIALLY FROM THE TARGETS, EXPECTATIONS, ESTIMATES OR INTENTIONS EXPRESSED IN THE FLS CONTAINED IN THIS MD&A. THE FLS ARE MADE AS OF THE DATE OF THIS MD&A AND THERALASE® ASSUMES NO OBLIGATION TO UPDATE OR REVISE SUCH INFORMATION TO REFLECT NEW EVENTS OR CIRCUMSTANCES, EXCEPT AS MAY BE REQUIRED BY APPLICABLE LAW.

Company Profile:

Theralase® is a clinical stage pharmaceutical company dedicated to the research, development and commercialization of small molecules and their associated drug formulations that are able to be activated by light, radiation, sound and/or other drugs, for the safe and effective destruction of various cancers, bacteria and viruses. The Company in its Drug Division conducts preclinical research and clinical development of these small molecules, primarily in the treatment of cancer, with assistance from its Device Division to develop medical lasers to activate them. The Company in its Device Division designs, develops, manufactures and markets proprietary super-pulsed Cool Laser Therapy ("**CLT**") technology indicated and cleared by Health Canada and the Food and Drug Administration ("**FDA**") for the treatment of chronic knee pain and in off-label use for treating numerous nerve, muscle and joint conditions.

Non-Brokered Private Placement

On February 5, 2024, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 6,666,670 units at a price of $CAN 0.18 per Unit for aggregate gross proceeds of approximately $CAN 1,200,000 of which 1,310,502 units were purchased by certain insiders of the Corporation, representing gross proceeds of $235,890. Each Unit consisted of one common share of the Company and one non-transferable warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $CAN 0.25 for a period of 5 years following the date of issuance.

On April 24, 2024, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 4,167,778 units at a price of $0.18 per Unit for aggregate gross proceeds of approximately $750,200. Each Unit consisted of one common share of the Company and one non-transferable common share purchase warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $0.25 for a period of 5 years following the date of issuance.

On July 8, 2024, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 3,522,729 units at a price of $0.22 per Unit for aggregate gross proceeds of approximately $775,000. Each Unit consisted of one common share of the Company and one non-transferable common share purchase warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $0.30 for a period of 5 years following the date of issuance.

On September 24, 2024, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 2,720,000 units at a price of $0.20 per Unit for aggregate gross proceeds of approximately $544,000. Each Unit consisted of one common share of the Company and one non-transferable common share purchase warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $0.30 for a period of 5 years following the date of issuance.

On November 15, 2024, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 2,221,334 units at a price of $0.30 per Unit for aggregate gross proceeds of approximately $666,400. Each Unit consisted of one common share of the Company and one non-transferable common share purchase warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $0.45 for a period of 5 years following the date of issuance.

On March 11, 2025, the Company closed a non-brokered private placement of units. On closing, the Company issued an aggregate of 1,034,002 units at a price of $0.30 per Unit for aggregate gross proceeds of approximately $303,472 of which 251,668 units were purchased by certain insiders of the Corporation. Each Unit consists of one common share of the Company and one non-transferable common share purchase warrant. Each Warrant entitles the holder to acquire an additional Common Share at a price of $0.45 for a period of 5 years following the date of issuance.

Warrant Extension

On September 19, 2024, the Company extended the expiry date of 10,000,000 share purchase warrants, all of which are exercisable at $0.35 per share. The share purchase warrants were issued on September 22, 2024, pursuant to a private placement involving the issuance of 10,000,000 units of the Company. The new expiry date of the warrants is September 22, 2027.

On November 12, 2024, the Company extended the expiry date of 1,000,000 share purchase warrants, all of which are exercisable at $0.35 per share. The share purchase warrants were issued on November 17, 2024, pursuant to a private placement involving the issuance of 1,000,000 units of the Company. The new expiry date of the warrants is November 17, 2027.

Research Collaboration for Treatment for Parkinson's Disease

Theralase® is working in collaboration with researchers at the University of Windsor, Faculty of Human Kinetics and a Windsor based chiropractor to conduct a groundbreaking clinical study into how Theralase® CLT can be used as a treatment for Parkinson's Disease, a brain disorder that causes unintended or uncontrollable movements, such as shaking, stiffness and difficulty with balance and coordination. Theralase®'s CLT, with its super-pulsed laser technology, is one of the few technologies in the world able to make an impact on this disease and improve the outcomes of Parkinson's Disease.

Advancing the Theralase® Technology Platform:

The Company's primary focus is the Drug Division, with strategic objectives of: preclinical research, clinical development and commercialization of small molecules and the light, radiation, sound and/or other drugs that activate them, intended primarily for the destruction of various cancers, bacteria and viruses.

Theralase®'s patented lead study drug, Ruvidar™(TLD-1433), is currently under late-stage clinical investigation in a Phase II clinical study for the treatment of Bacillus Calmette Guérin ("**BCG**")- Unresponsive Non-Muscle Invasive Bladder Cancer ("**NMIBC**") Carcinoma In-Situ ("**CIS**").

The trade name Ruvidar™ was selected by the Company for its lead small molecule, Ruvidar™; where, Ru is the elemental symbol for Ruthenium (a rare transitional metal in Group 8 belonging to the platinum group, which the Theralase® small molecule is based upon), vita is Latin for "life" and dar is Russian for "gift"; hence, roughly translated, "Ruthenium, the gift of life". Iron, Ruthenium and Osmium are all transitional metals in Group 8, so named as they possess eight electrons in their outer shell, giving them similar chemical characteristics.

Ruvidar™, has been demonstrated preclinically to bind with transferrin, a human glycoprotein, forming the compound named, Rutherrin®. Transferrin is utilized by the human body to transport molecular iron to every cell in the body. Various cancer cells, in peer-reviewed publications, have demonstrated significantly more transferrin receptors versus healthy cells, allowing the preferential deposition of the Ruvidar® payload inside the cancer cell, versus a healthy cell, through endocytosis. When light or radiation activated, Ruvidar® has been demonstrated to destroy cancer cells through the production of singlet oxygen and/or Reactive Oxygen Species ("**ROS**"), from the inside out, inducing oxidative stress, leading to Immunogenic Cell Death ("**ICD**").

The Drug Division is in the preclinical research and development of Rutherrin® intended to be utilized as an injectable form of Ruvidar™, for the treatment of Glio Blastoma Multiforme ("**GBM**"), a deadly form of brain cancer, Non-Small Cell Lung Cancer ("**NSCLC**"), pancreatic cancer, lymphoma, Herpes Simplex Virus ("**HSV**") and Muscle Invasive Bladder Cancer ("**MIBC**").

There are no commercial and/or financial benefits of the Drug Division for the Company at the present time, resulting in zero revenue, sales or commercial distribution of this technology.

Theralase® conducts its own research and development in the Drug Division, as well as enlisting the support of external scientific, research, regulatory and Clinical Research Organizations ("**CROs**").

Phase II NMIBC Clinical Study ("Study II")

Theralase® designed Study II to utilize the Therapeutic Dose (0.70 mg/cm^2) of Ruvidar® and focus on the treatment of approximately 90 BCG-Unresponsive NMIBC patients presenting with persistent or recurrent CIS with or without resected T_a/T_1 (non-invasive/resected papillary disease/tumour that invades the subepithelial connective tissue) disease diagnosed within 12 months of completion of adequate BCG therapy (BCG-Unresponsive) or who are intolerant to BCG therapy ("**Study II**").

Study II was designed to enroll and treat patients in up to 15 Clinical Study Sites ("**CSSs**") located in Canada and the US. To date, Theralase® has successfully launched 16 CSSs; specifically, 6 CSSs in Canada and 10 CSSs in the US, with 2 US CSSs terminating patient enrollment in Study II, leaving 14 CSSs, 6 CSSs in Canada and 8 CSSs in the US.

Study II (NCT03945162) is an ongoing, Phase II, open-label, single-arm, multi-center study conducted in Canada and the US evaluating the safety and efficacy of the Company's Study Drug activated by the Study Device (collectively the "**Study Procedure**").

Study II Objectives:

Primary: Efficacy, evaluated by Complete Response ("**CR**") at any point in time in patients confirmed to have CIS (with or without resected papillary disease (T_a / T_1)) during the screening process.

CR is defined by at least one of the following:

- Negative cystoscopy and negative (including atypical) urine cytology
- Positive cystoscopy with biopsy-proven benign or low-grade NMIBC and negative cytology
- Negative cystoscopy with positive urine cytology, if urothelial cancer is suspected in the upper tract or prostatic urethra and random bladder biopsies are negative

Secondary: Duration of CR at 12 months post initial CR.

Tertiary: Safety, evaluated by the incidence and severity of Adverse Events ("**AEs**"), Grade 4 or higher that do not resolve within 450 days post treatment (Grade 1 = Mild, Grade 2 = Moderate, Grade 3 = Severe, Grade 4 = Life-threatening or disabling, Grade 5 = Death).

Indeterminate Response ("**IR**") is defined as patients who present with a negative cystoscopy and positive urine cytology, but do not have a confirmatory bladder biopsy at that assessment visit.

IR patients can be re-classified to CR patients, if they have a confirmatory bladder biopsy or subsequent assessments of CR can be carried back.

Patients who achieve CR or IR at 90 days and continue to demonstrate a CR or IR response at 450 days will be followed to assess the duration of their CR up to 1080 days.

The Study Treatment consists of a Study Drug (Ruvidar™) at the Therapeutic Dose (0.70 mg/cm^2) (equivalent to 0.65 mg/cm^2 of active drug moiety) instilled into the patient's bladder intravesically for approximately sixty (60) minutes and

subsequently activated by the Study Device ("**TLC-3200 Medical Laser System**" or "**TLC-3200**") to deliver an intended energy density of 90 J/cm^2 (approximately 60 to 180 minutes depending on bladder volume).

In 2018, Health Canada granted the Company both a Clinical Trial Application ("**CTA**") for the Study Drug (Ruvidar™) and an Investigational Testing Authorization ("**ITA**") for the Study Device (TLC-3200) to allow commencement of enrolling and treating patients in Study II.

On October 23, 2023, Theralase® was granted a Clinical Trial Application Amendment ("**CTA-A**") by Health Canada through receipt of a No Objection Letter ("**NOL**") for the optimization of the Phase II Non-Muscle Invasive Bladder Cancer ("**NMIBC**") clinical study ("**Study II**").

On February 9, 2024, Theralase® was granted an Investigational New Drug ("**IND**") by the FDA for the optimization of the Study II.

The Study II optimization consisted of:

1. **Post Study II Monitoring of Response** - Patients, who achieved a CR or Indeterminate Response ("**IR**") (collectively a Total Response ("**TR**")), demonstrated a duration of that response at 450 days and remained in Study II will be monitored by the Company up to 1080 days, to help define the long-term duration of the Study Procedure.

2. **Optional Maintenance Study II Treatment** -Patients originally received a mandatory maintenance Study Procedure at 180 days; however, this has been optimized to allow optional re-induction Study Procedures, at the discretion of the Principal Investigator ("**PI**") based on the patient's response. For patients who have achieved a CR or IR at any point in time and have demonstrated a duration of that CR or IR, no further re-induction Study Procedures would be prescribed; however, if the patient recurs at any scheduled assessment visit (i.e.: 90, 180, 270, 360 or 450 days), then that patient would be eligible to receive up to two (2) re-induction Study Procedures at the discretion of the PI to assist the patient in achieving a CR.

3. **Central Pathology Laboratory Review** - Use of a central pathology laboratory to validate local pathology laboratory results.

As of March 11th, 2025, the following CSSs are eligible to enroll patients into Study II and provide the primary Study Procedure to patients:

Clinical Study Sites	Location	Commenced
University Health Network ("**UHN**")	Toronto, Ontario, Canada	April 25, 2019
McGill University Health Centre ("**MUHC**")	Montreal, Quebec, Canada	July 30, 2019
London Health Sciences Centre ("**LHSC**")	London, Ontario, Canada	October 7, 2019
Nova Scotia Health Authority ("**NSHA**")	Halifax, Nova Scotia, Canada	February 25, 2020
University of British Columbia ("**UBC**")	Vancouver, British Columbia, Canada	December 7, 2020
Urology Associates P.C. ("**UAPC**")	Nashville, Tennessee, United States	January 20, 2021
Carolina Urologic Research Center ("**CURC**")	Myrtle Beach, South Carolina, United States	January 27, 2021
University of Wisconsin-Madison ("**UWM**")	Madison, Wisconsin, United States	February 24, 2021
Urology San Antonio P. A. ("**USAPA**")	San Antonio, Texas, United States	March 25, 2021
University of Chicago ("**UC**")	Chicago, Illinois, United States	June 11, 2021
St. Joseph's Healthcare Hamilton ("**SJHH**")	Hamilton, Ontario, Canada	December 5, 2024
Associated Medical Professionals of NY ("**AMPNY**")	Syracuse, New York, United States	December 9, 2024
Urology of Indiana ("**UI**")	Greenwood, Indiana, United States	December 9, 2024
Central Ohio Urology Group ("**COUG**")	Gahanna, Ohio, United States	December 9, 2024

Table 1.0: Study II Clinical Study Sites

On February 8th, 2024, Dr. Michael Jewett joined the Company in the role of an independent consultant, to assist the Company in the enrollment of patients in Study II. Under the terms of the consulting agreement, Dr. Jewett will be responsible for working with the existing clinical study sites and helping to onboard new clinical study sites to allow Theralase® to complete enrollment and provide the primary Study Procedure to up to 100 patients in Study II, by 4Q2024 / 1Q2025.

Study II commenced in April 2019 with an estimated completion time of approximately 8 years and an estimated cost of approximately $CAN 100 million. The timing and cost may vary significantly depending on numerous factors; including: number of CSSs enrolling and treating patients, patient enrollment rates in total and at each CSS, patient compliance and successful achievement of Study II primary, secondary and tertiary objectives.

Break Through Designation Update:

In 2020, the FDA granted Theralase® Fast Track Designation ("**FTD**") for Study II. As a Fast Track designee, Theralase® has access to early and frequent communications with the FDA to discuss Theralase®'s development plans and ensure the timely collection of clinical data to support the approval process. The accelerated communication with the FDA potentially allows, the Study Procedure, to be the first intravesical, patient-specific, light-activated, Ruthenium-based small molecule for the treatment of patients diagnosed with BCG-Unresponsive NMIBC CIS, (with or without recurrent / resected papillary T_a/T_1 tumours). FTD can lead to Break Through Designation ("**BTD**"), Accelerated Approval ("**AA**") or Priority Review, if certain criteria are met, which the FDA previously defined to the Company for BTD as clinical data on approximately 20 to 25 patients enrolled and provided the primary Study Procedure, who demonstrate significant safety and efficacy clinical outcomes.

To this list, the FDA has added: Post Study II Monitoring of Response and Central Pathology Laboratory Review, as further defined above.

The Company is currently working with the CSSs and a regulatory organization to update the pre-BTD submission with clinical data clarifications identified by the FDA. The Company plans to resubmit the pre-BTD submission to the FDA in 1Q2025 for FDA review of these clarifications. Once the pre-BTD submission has been accepted by the FDA, the Company plans to compile a BTD submission for review by the FDA in support of the grant of a BTD approval.

Theralase® has received the majority of the clinical data from the CSSs with a high percentage of patients showing a duration of their CR beyond 450 days, with some patients demonstrating CR for up to ≥ 3 years, post receiving the primary Study Procedure.

Study II Preliminary Clinical Data:

In recent discussions with the MSAB for Study II, the MSAB advised the Company to review the FDA Guidance to Industry[1] on how to best classify IR patients (patients assessed with negative cystoscopy and positive urine cytology, without confirmatory bladder biopsies), where the source of the positive urine cytology has not been determined.

The FDA Guidance to Industry[1] states as follow:

"For single-arm trials of patients with BCG-unresponsive disease, the FDA defines a complete response as at least one of the following:

- *Negative cystoscopy and negative (including atypical) urine cytology*
- *Positive cystoscopy with biopsy-proven benign or low-grade NMIBC and negative cytology*

[1] BCG-Unresponsive Nonmuscle Invasive Bladder Cancer: Developing Drugs and Biologics for Treatment – Guidance for Industry. August 2024; www.fda.gov/media/101468/download

For intravesical therapies without limited systemic toxicity, the FDA includes, in the definition of a CR, negative cystoscopy with malignant urine cytology if cancer is both a) cancer is found in the upper tract or prostatic urethra and b) mandatory templated random bladder biopsies are negative."
In accordance with the FDA Guidance to Industry[1], patients enrolled and provided the primary Study Procedure, where the source of the positive urine cytology has been identified (i.e.: upper tract or prostatic urethra Urothelial Cell Carcinoma ("**UCC**")) and confirmatory bladder biopsies are negative, Theralase® has reclassified these patients from IR to CR.

For patients, who have been enrolled and provided the primary Study Procedure in Study II, that have been diagnosed as IR and do not have confirmatory negative bladder biopsies (confirming that the source of the UCC is not from the bladder wall), then these patients have remained classified as IR, until additional clinical assessments are completed to prove or disprove a diagnosis of CR.

As a result, Theralase® updated its Study II's interim clinical study data analysis, where some patients have been reclassified from IR to CR on certain assessment days.

In accordance with the FDA Guidance to Industry[1], Theralase® will conduct sensitivity analyses, in which IR patients both considered to have achieved CR and those not considered to have achieved a CR, as a part of the final clinical report.

In 2016, Kamat et al. stated in the Journal of Clinical Oncology that the International Bladder Cancer Group ("**IBCG**") recommended that, "*Single-arm designs may be relevant for the BCG-unresponsive population. Here, a clinically meaningful initial complete response rate (for carcinoma in situ) or recurrence-free rate (for papillary tumors) of at least 50% at 6 months, 30% at 12 months, and 25% at 18 months is recommended.*"[2]

The interim clinical data presented exceeds these IBCG guidelines.

To date, Theralase® has enrolled and treated 79 patients in Study II, who have been provided the primary Study Procedure by the CSSs.

Theralase® plans to complete Study II accruement by mid 2025.

95% (75/79) of treated patients have been evaluated at the 90 days assessment for treatment safety and efficacy according to the clinical study protocol.

81% (64/79) of treated patients have completed the clinical study for treatment safety and efficacy or have been prematurely removed by the PI according to the clinical study protocol.

Performance to Primary Objective:

For the primary endpoint of Study II (CR at any point in time) 62.5% (40/64) [43.1, 81.9] of patients provided the Study Procedure (Study Drug activated by the Study Device) demonstrated a CR. Including patients, who demonstrated an IR (negative cystoscopy and positive or suspicious urine cytology), the TR increases to 68.8% (44/64) [48.5, 89.1].

This represents that approximately 2 out of 3 BCG-Unresponsive NMIBC CIS patients treated with Theralase®'s unique Study Procedure are demonstrating complete destruction of their bladder cancer.

[2] Kamat AM et al. J Clin Oncol. 2016; 34: 1935-1944

Primary Endpoint Performance (CR at any Point in Time)			
	#	%	Confidence Interval (95%)
Complete Response ("CR")	40	62.5%	[43.1, 81.9]
Total Response (CR and IR)	44	68.8%	[48.5, 89.1]

Table 2.0: Primary Endpoint Performance

Performance to Secondary Objective:

For the secondary endpoint of Study II (duration of CR) 45.0% (18/40) [24.2, 65.8] of treated patients who achieved a CR, maintained their CR response for at least 12 months (450 days from date of Study Procedure).

Secondary Endpoint Performance (Duration of CR) (450 Days)			
	#	%	Confidence Interval (95%)
Complete Response ("CR")	18	45.0%	[24.2, 65.8]

Table 3.0: Secondary Endpoint Performance

Performance to Tertiary Objective:

For the tertiary endpoint of Study II (safety of Study Procedure) 100% (64/64) experienced no Serious Adverse Events ("**SAEs**") directly related to the Study Drug or Study Device.

Tertiary Endpoint Performance (Safety) (450 Days)		
	#	%
Safety	64	100.0%

Table 4.0: Tertiary Endpoint Performance

In addition, 25.0% (10/40) [9.5, 40.5] of patients who demonstrated a CR, continue to demonstrate a CR at 24 months from date of first treatment and 20.0% (8/40) [6.1, 33.9] of patients continue to demonstrate a CR at 36 months from date of first treatment.

Note: For patients to be included in the statistical clinical analysis they must be enrolled in Study II, provided the primary Study Procedure and evaluated by a PI at the 90 days assessment through to 450 days assessment (cystoscopy and urine cytology) or have been removed from Study II, after the 90 day assessment and prior to the 450 day assessment. There are 64 patients that have completed Study II and have been statistically analyzed for efficacy. Evaluable Patients are defined as patients who have been evaluated by a PI at all assessment visits or have been removed from Study II. The data analysis presented above should be read with caution, as the clinical data is interim in its presentation. Study II is ongoing and new clinical data collected may or may not continue to support the current trends, with clinical data pending.

Patient Response Chart:

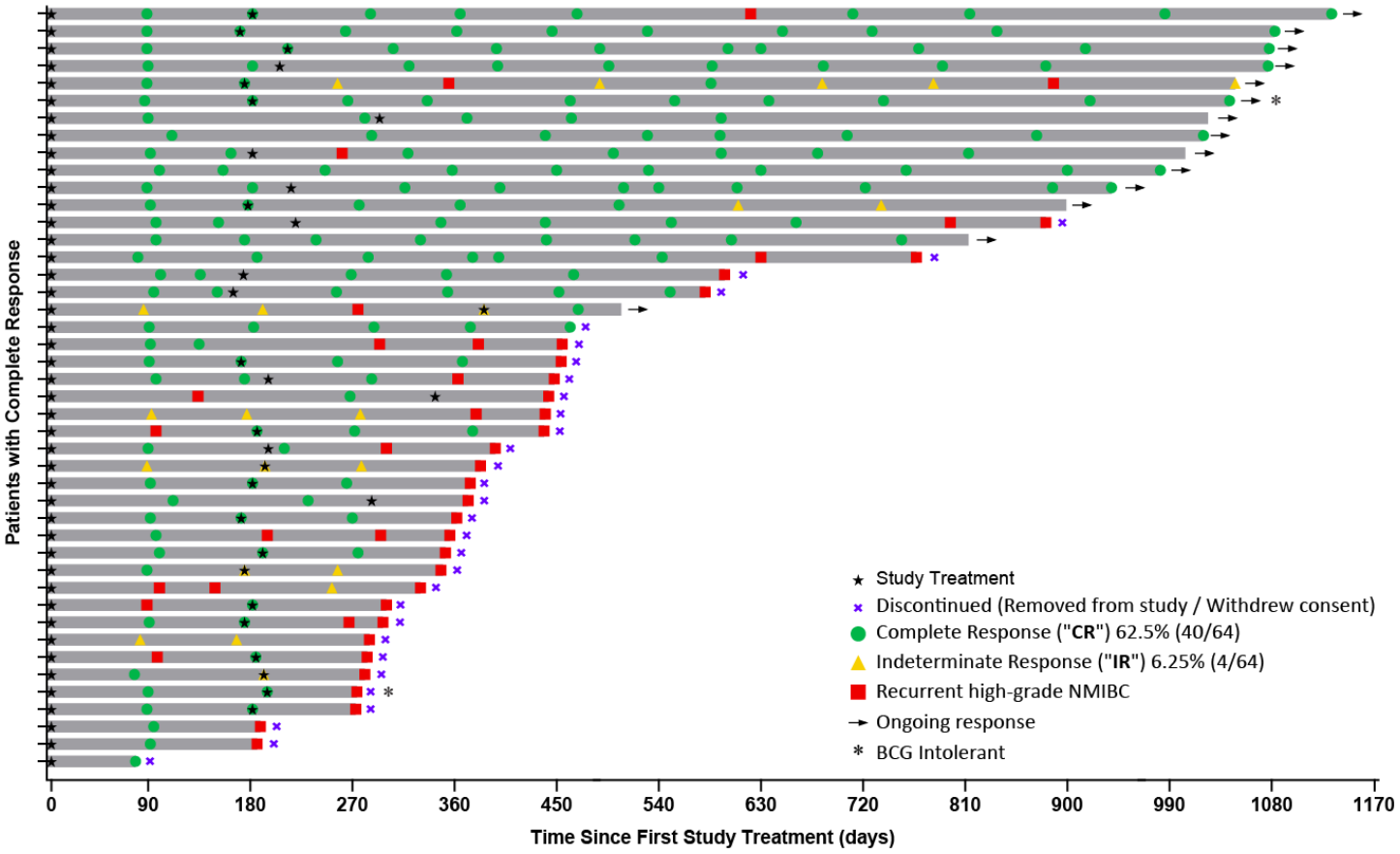

Figure 1.0: Swimmer's Plot

The Swimmer's plot is a graphical representation of the interim clinical results (n=64) for patients who achieved a CR at any point in time and their response up to and including 1170 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.

62.5% (40/64) of patients who have completed Study II (Patients provided primary Study Procedure and assessed at 90 days, who have been further assessed up to 450 days or prematurely removed from the study by the PI) achieved CR at any point in time, with 45.0% (18/40), of patients who demonstrated an initial CR continuing to demonstrate CR at 450 days and thus achieving the primary and secondary objectives of Study II.

Clinical data is still being collected, but all indications demonstrate that Study II has achieved its primary, secondary and tertiary objectives.

Kaplan-Meier Curve:

The Kaplan-Meier ("**KM**") Curve illustrates graphically, for patients who have achieved a CR, the duration of CR and probability of that CR continuing in the future, when all clinical data of the Study II is analyzed.

Note: Only patients that achieved the primary objective (CR at any point in time) have been analyzed and data is plotted relative to the date at which their first CR was observed. The green circle denotes censored observations, which means patients who achieved CR at their last assessment visit and are currently on-study or have been removed

from Study II. Thus, the KM Curve estimates the risk of a patient failing to maintain a CR over time, according to currently available interim data.

In summary, the interim clinical data demonstrates that patients consenting to participate in Study II have a 62.5% chance of achieving CR.

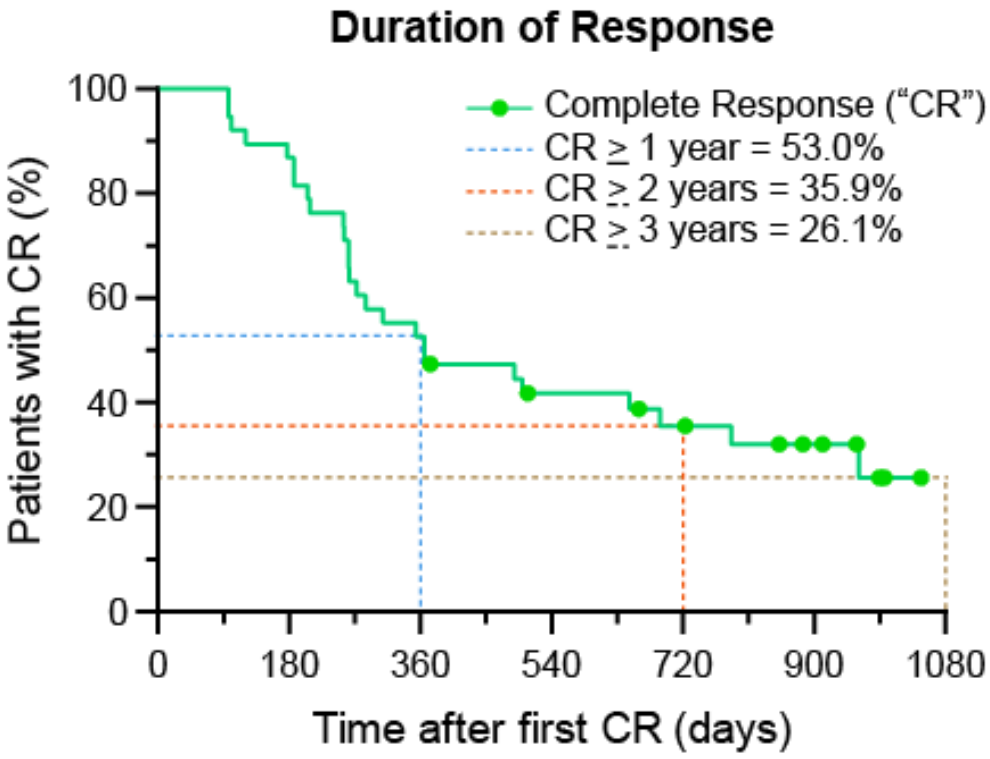

Figure 2.0: Kaplan Meier's Curve

According to the KM Curve, if CR is obtained, then the patient has a ≥ 53.0%, ≥ 35.9% and ≥ 26.1% chance of remaining cancer free for 1, 2, and 3 years, respectively.

Serious Adverse Events

For 79 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 II Drug or Study II 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.

Additional Oncology Targets:

Theralase® has been granted international patents supporting a comprehensive Intellectual Property ("**IP**") platform of its small molecules. The scientific and preclinical research and development of these small molecules has been optimized by fine-tuning the photophysical and photochemical properties of the small molecules, allowing them to demonstrate both Type I (oxygen limited) and Type II (oxygen dependent) photoreactions and activation in hypoxia.

By combining these small molecules with transferrin (human glycoprotein), as a delivery system it has been preclinically demonstrated that transferrin is able to significantly:

- Increase the resistance of Ruvidar™, the lead drug candidate, to photobleaching (loss of potency of the small molecule over time)
- Increase Reactive Oxygen Species ("**ROS**") production (ability to destroy cancer cells quickly and effectively)
- Increase selective tumour uptake (destruction of cancer cells, while sparing healthy cells) through the Transferrin Receptor ("**TfR**")
- Increase anti-cancer efficacy (efficiency in cancer cell destruction)
- Decrease systemic toxicity (damage to healthy cells and/or organs)

This allows Rutherrin® (Ruvidar™ + transferrin) to be a strong candidate for the systemic treatment of recurrent, deep seated and/or progressive cancers. The Company continues to conduct extensive scientific and preclinical research and development towards new oncology indications and has developed significant expertise and IP assets regarding its patented small molecules, in pursuit of this goal.

Due to the limitations of using laser light to activate Rutherrin® in deep oncological targets, Theralase®'s research strongly suggests that Rutherrin® may be activated with radiation therapy, which is able to increase the "tumour's damage zone" and the effectiveness of Theralase®'s PDT beyond the reach of light in the body.

Radiotherapy ("**RT"**) is one of the primary treatment methodologies for many types of cancer, although it is currently a challenge to enhance radiation damage to tumour tissue, while reducing side effects to healthy tissue.

Rutherrin® is a unique drug that offers the ability to enhance injury to tumor tissue by accelerating damage through the production of ROS and free radicals; thereby, acting as a radio enhancer or even radio synergist. Several preclinical strategies have been investigated by Theralase®'s research scientists to research, develop, optimize and advance highly selective and effective radio sensitizing properties of Rutherrin®.

Rutherrin® activation via RT is preferential to light activation due to the much deeper tissue penetration of RT.

Further research and development is currently underway into the mechanisms of action of Rutherrin®, its multidisciplinary applications, delivery methodologies, safety and efficacy.

Once Rutherrin®'s Maximum Tolerated Dose ("**MTD**") and hence Human Equivalent Dose ("**HED**") limits have been determined through Good Laboratory Practices ("**GLP**") toxicology studies, Theralase®, subject to regulatory approvals, plans to intravenously inject Rutherrin® into patients via a Phase 0/I/II adaptive clinical study design, to first determine localization to various cancer cells, including Glio Blastoma Multiforme ("**GBM**"), Non-Small Cell Lung Cancer ("**NSCLC**"), pancreatic cancer and Muscle Invasive Bladder Cancer ("**MIBC**") and then in an adaptive design activate Rutherrin®, in single and multiple doses, with radiation with the intent of safely and effectively destroying the cancer of interest.

Rutherrin®, if proven successful, would thus be able to "hunt" and "localize" into cancer cells and when activated by radiation "destroy" them; wherever, they may reside in the body.

GlioBlastoma Multiforme:

Theralase® completed experiments in GBM demonstrating an ability of Rutherrin® to localize to GBM.

Transferrin in the Rutherrin® product significantly increased both the total drug uptake and the specificity (> 20 times) compared to normal brain samples, while Ruvidar™ alone does not show any selectivity. The selective uptake remains for at least 24 hours after injection, and the drug is gradually cleared overtime, which suggests a need for a second Rutherrin® injection after 48-72 hours

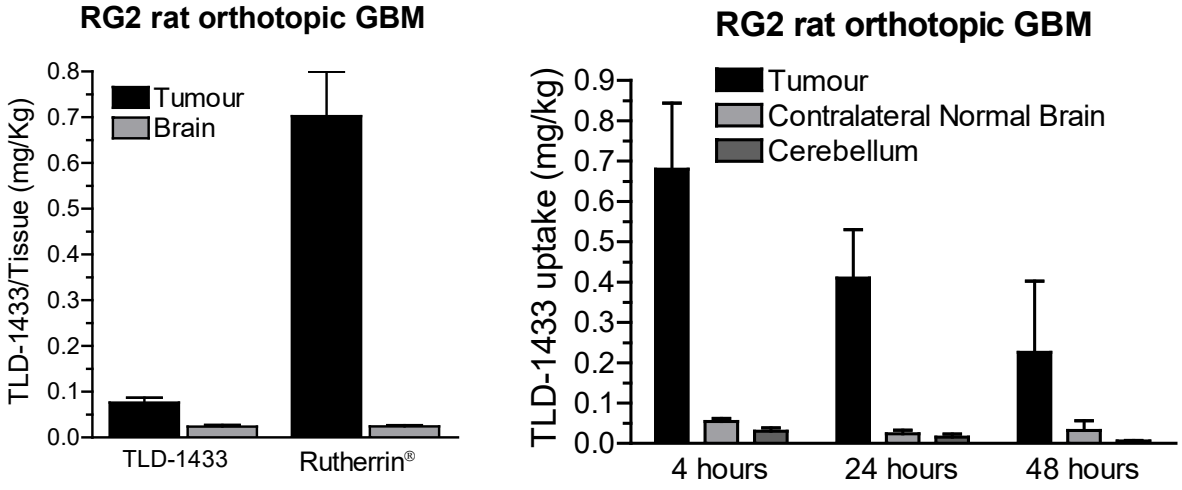

Figure 3.0: Rat Glioma Orthotopic Model Rutherrin® Localization

In the below experiment, tumours were more resistant to radiation and grew faster than the previous experiment. None of the radiation alone treated mice showed complete response (Figure 4.0). The combination of Rutherrin® with radiation treatment significantly delayed tumour progression and improved overall survival compared to radiation alone, with 25% of Rutherrin® and radiation groups demonstrating complete response. Mice with complete response were re-challenged with fresh tumour cells and none developed tumours, which suggests an immunity rate of 100%. In addition, strong efficacy was observed with a 3 mg/kg Rutherrin® dose, suggesting that radio-enhancement can be achieved with lower drug doses and lower uptake. There was no difference in response between the small animal irradiator (XRAD at 0.225 MeV) and clinical irradiator (LINAC at 6 MeV), suggesting that equivalent efficacy is anticipated when translating these animal efficacy studies into clinical studies. The lack of a higher response with clinical LINAC could be associated with the treatment being performed on superficial subcutaneous tumours, while Cherenkov light is emitted when the high energy charged particle passes through a certain depth of tissues; therefore, a higher response could be expected in a clinical study with deeper seated tumours like GBM or NSCLC.

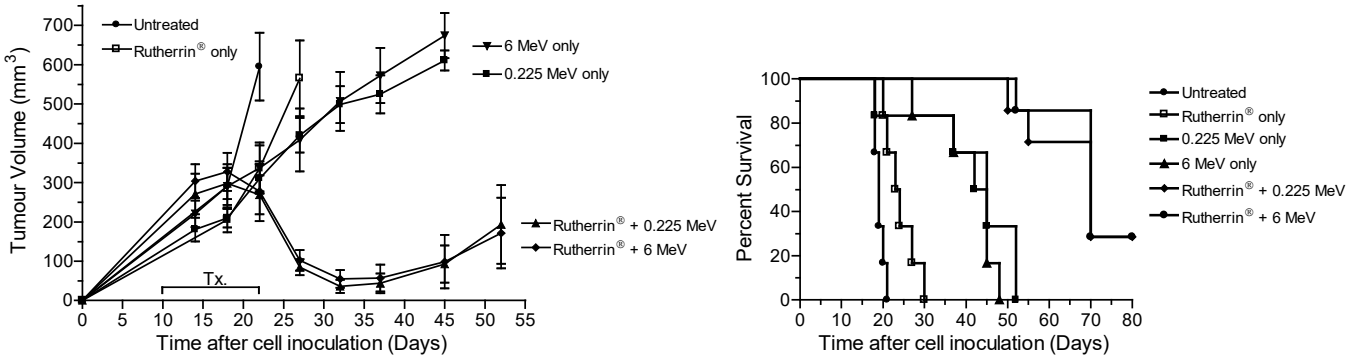

Figure 4.0: Efficacy of Rutherrin® and Comparison of Radiation Sources with Subcutaneous Mouse Model

Non-Small Cell Lung Cancer:

Theralase® completed experiments in NSCLC, using a Lewis Lung Cancer ("**LLC1**") orthotopic model. In this model, mouse lungs are subjected to lung cancer cells, which induces these mice to develop very aggressive, fast growing and metastatic lung tumours.

As shown below, lung tumours retained Rutherrin® longer than normal lung tissues (p>0.01), leading to a substantially improved selectivity of Rutherrin® to target lung cancer.

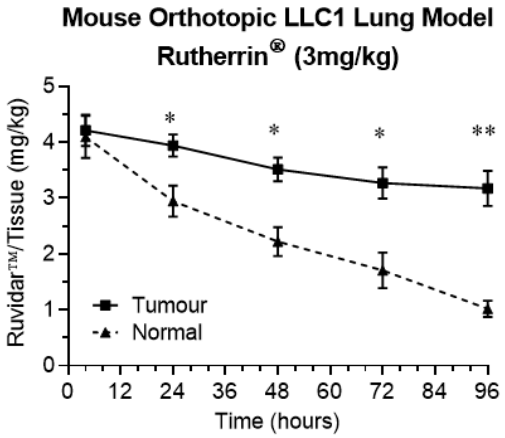

Figure 5.0: Rutherrin® Concentration in Normal and Tumour Lung After Single 3 Mg/Kg Intra Venous ("**IV**") Injection

In addition, the mice treated with x-ray activated Rutherrin® have demonstrated up to a 4-fold slower tumour progression, based on the Magnetic Resonance Imaging ("**MRI**") assessment of tumour volumes.

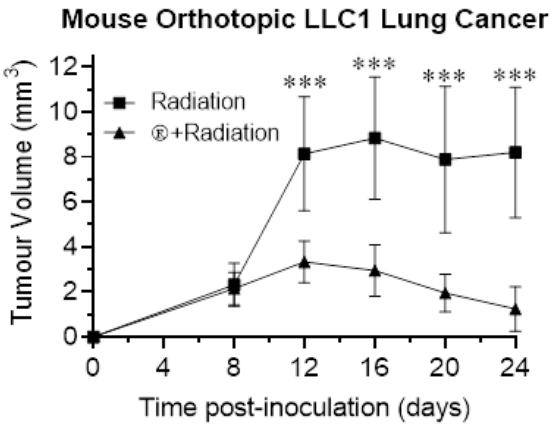

Figure 6.0: Tumour Volume Analysis in Mice After Tumour Inoculation and Treatment with Either Radiation Only or Combined Treatment of Rutherrin® and Radiation Treatment

As shown above, there is a significant delay in tumour progression in mice treated with X-ray activated Rutherrin® versus with radiation alone (p> 0.001). In fact, in mice treated with X-ray activated Rutherrin®, the tumour is notably regressing / being destroyed over time.

The Kaplan-Meier Curve shown below representing animal survival demonstrates a significant increase in Overall Survival ("**OS**") of mice treated with X-ray activated Rutherrin® versus radiation only.

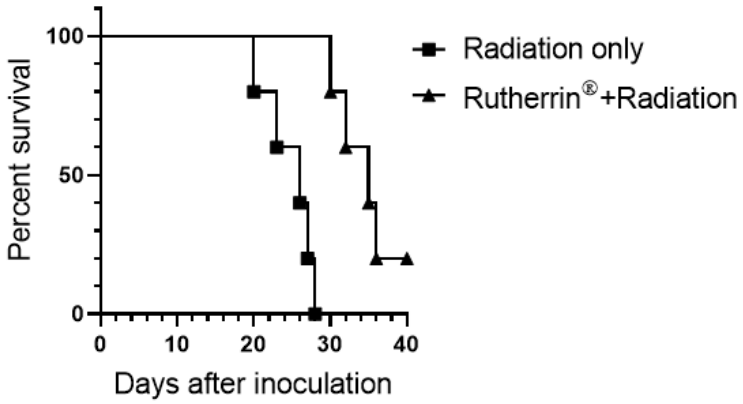

Figure 7.0: Kaplan-Meier Survival Analysis of Mice After Tumor Inoculation and Treatment with Radiation Only or Combined Treatment of Rutherrin® and Radiation Treatment

These results demonstrate that animals treated with a combination of Rutherrin® and radiation therapy demonstrated an increase in median survival from 26 to 35 days, versus radiation only. In scientific publications, mouse survival of 9 days has been equated to the equivalent of 1 year survival in humans, but more importantly, is that one animal treated with X-ray activated Rutherrin® (which had a positive lung tumour verified by CT scan) demonstrated a complete response and is now considered cancer free.

Drug Combination Preclinical Research:

Ruvidar™ and Rutherrin® have demonstrated an ability to "hunt" and localize to various cancer cells, viruses and bacteria and when activated by light and/or radiation safely and effectively destroy the target of interest.

Theralase® has expanded its research and development to include the evaluation of Ruvidar™ and Rutherrin® in its ability to increase the safety and/or efficacy of currently marketed drugs; including: oncology drugs (i.e.: bacteria-based, chemotherapy and immunotherapy) and non-oncological drugs.

Ruvidar™ + BCG:

In preclinical cell-based experiments, Ruvidar™ combined with BCG creating a new compound, nicknamed RuBCG, that was able to significantly increase the efficacy of BCG in cancer cell kill versus BCG or Ruvidar™ alone, when non-light activated. The Mechanism Of Action ("**MOA**") is believed to be through a reversal of the cell wall charge of the BCG bacteria and in return a significant enhancement of bladder cancer cell kill by RuBCG.

BCG is an attenuated form of Mycobacterium bovis, a bacterium with established efficacy in the treatment of urinary bladder cancer. It has been used clinically for decades, as the standard of care in the treatment of NMIBC. BCG is believed to work by invading bladder cancer cells and triggering an immune response, allowing the body's own immune system to attack and destroy the bladder cancer cells. Unfortunately, BCG is effective in only 75% of patients treated and lacks a duration of response, as 50% of treated patients recur within 1 year of treatment.

A possible explanation for why BCG works for certain patients, fails in others and lacks a durable response may lie in the fact that BCG possesses a strong negative electrical charge. Cancer cells also possess a strong negative electrical charge. This results in the formation of a repulsion between the BCG bacterium and bladder cancer cells, which would thus make it difficult for BCG to adhere to and be absorbed by bladder cancer cells to affect a response. As a result, BCG remains unable to securely bind to the target bladder cancer cells and thus is ineffective in their destruction. This charge repulsion between BCG and bladder cancer cells is demonstrated clinically, by patients being required to undergo multiple BCG induction treatments, with high doses of BCG, in the hopes of achieving a meaningful anti-cancer effect.

A novel way to increase BCG effectiveness would be to "switch" the charge of negatively charged BCG to positively charged BCG, thus enabling bladder cancer cell adhesion and penetration of the negatively charged cancer cells.

As shown below, when Ruvidar™ was combined with BCG, it was able to reverse the negative charge of BCG to a positive charge, thus allowing potentially greater BCG uptake by NMIBC cells and a corresponding higher kill rate.

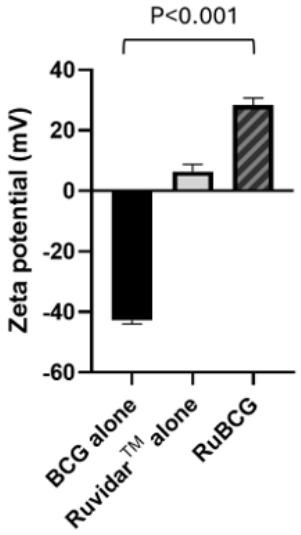

Figure 8.0: Inversion of BCG Surface Charge by Ruvidar™ in RuBCG Formulation

Therefore, Theralase® has been able to demonstrate preclinically that Ruvidar™ was able to override the negative surface charge of BCG making their attachment and uptake in NMIBC more efficient.

As shown below, RuBCG was able to increase the immunogenicity (ability to produce an immune response) in bladder cancer cells, by significantly decreasing the immune checkpoint inhibitor, Programmed Death Ligand-1 ("**PD-L1**").

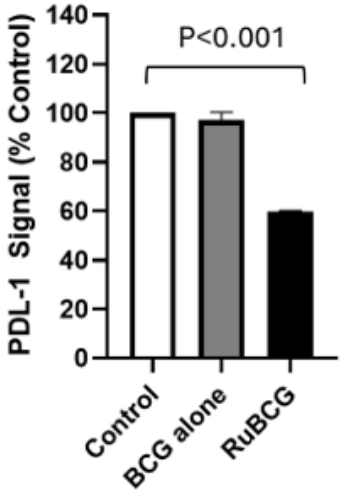

Figure 9.0: Increase in Immunogenicity of T24 cells (Human Bladder Cancer) Upon Incubation with RuBCG

As shown below, RuBCG increased cell kill of T24 (human bladder cancer cells) versus the individual toxicities of Ruvidar™ or BCG alone, when non-light activated.

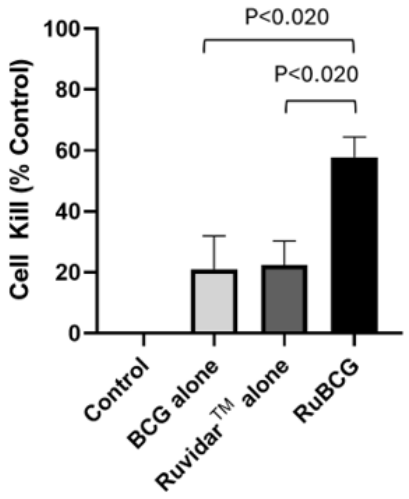

Figure 10.0: Increase in Cytotoxicity of T24 (Human Bladder Cancer Cells) Upon Incubation with RuBCG

Rutherrin® + Chemotherapy:

Rutherrin® has been proven preclinically to be effective in increasing the efficacy of chemotherapy and reducing multidrug resistance.

Chemotherapy is currently one of the principal treatment methods for cancer, along with radiation and surgery. Clinically, many tumours undergo a satisfactory response, when first exposed to chemotherapeutic drugs; however, despite the initial success of these treatments, growing resistance to treatment with these drugs becomes a common occurrence. This results in the steady loss of therapeutic response over time for cancer patients, despite the wide spectrum of drugs and treatments available. This phenomenon is termed Multi-Drug Resistance ("**MDR**").

Although there are several different mechanisms associated with the development of MDR in patients, a common cause is believed to be the overexpression of a plasma membrane superfamily of transporter proteins, called the ATP-Binding Cassette ("**ABC**") transporter, which act as an energy-dependent drug efflux pump, preventing adequate intracellular accumulation of a broad range of cytotoxic drugs. In other words, the chemotherapeutic drugs are expelled by the cancer cells, before they have a chance to be effective. This underlines the critical importance of identifying compounds that could inhibit the efflux pump activities.

In order to determine the effect of Rutherrin® on MDR in cancer cells, cells were treated with Rutherrin®, before addition of one of the following drugs:

1. Hoechst 33342 (nuclear dye commonly used to study ABC transporter drug efflux)
2. Temozolomide (chemotherapy used to treat brain cancer)
3. Gemcitabine (chemotherapy used to treat various cancers)
4. Cisplatin (platinum-based chemotherapy used to treat various cancers)

Following incubation, cells were washed and the amount of intracellular drug was quantified using High-Performance Liquid Chromatography ("**HPLC**") coupled with Mass Spectrometry.

The amount of drug was normalized to cells, which were not treated with Rutherrin®, as a control.

As shown below, treatment with Rutherrin® significantly enhanced the retention of all tested chemotherapeutic drugs, presumably through the inhibition of the ABC transporter efflux pump, resulting in higher intracellular drug accumulation,

which would increase exposure of the cancer cells to the respective chemotherapy and consequently improve overall treatment efficacy.

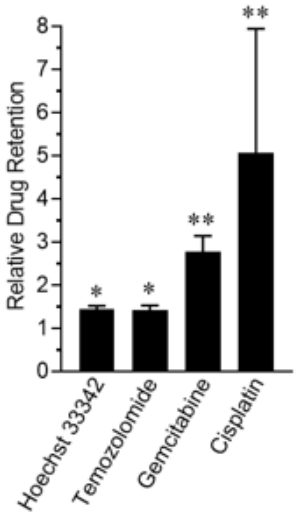

Figure 11.0: Relative Chemotherapeutic Drug Retention in Rutherrin® Treated Cells Normalized to Drug-Only Treated Cells

To further investigate this phenomenon and to demonstrate cancer cell kill, *in vitro* cells were treated with Rutherrin®, before addition of various chemotherapeutic drugs to analyze cell survival.

<u>These chemotherapeutic drugs include:</u>

1. Vandetanib (chemotherapy used to treat thyroid cancer)
2. Vemurafenib (chemotherapy used to treat melanoma)
3. Vinblatine (chemotherapy used to treat lymphoma, breast cancer and testicular cancer)
4. Cisplatin (platinum-based chemotherapy used to treat various cancers)
5. Temozolomide (chemotherapy used to treat brain cancer)
6. Gemcitabine (chemotherapy used to treat various cancers)

As shown below, the addition of Rutherrin® significantly increased the cancer cell kill for all tested chemotherapeutic drugs, suggesting a universal effect of Rutherrin® on chemotherapeutic drugs in their destruction of cancer cells, rendering the cancer cells more susceptible to chemotherapy.

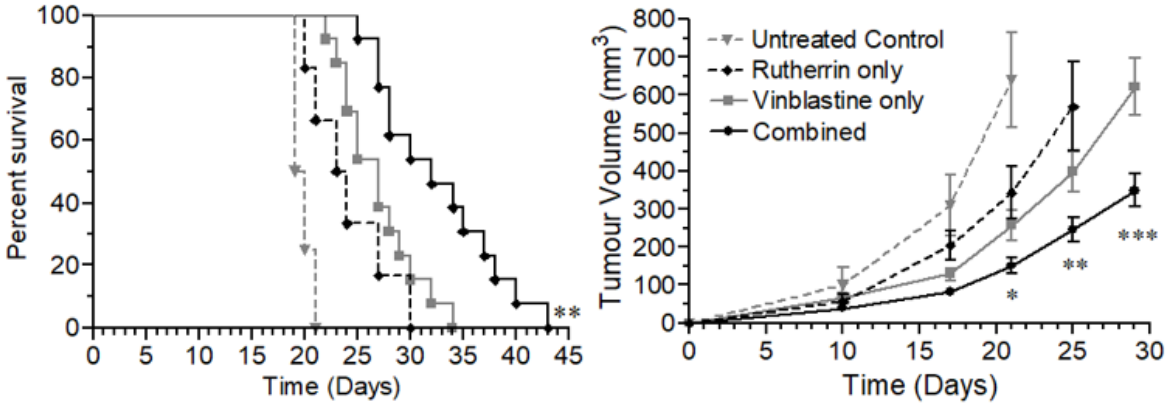

Figure 12.0: Kaplan-Meier Survival Curve and Tumor Volume Analysis in Mice After Subcutaneous Tumour Inoculation and Treatment With Either: Control, Rutherrin® Only, Vinblastine Only or Combined Rutherrin®, Plus Vinblastine Treatment

To further validate the research, a mouse animal model was utilized, where the mice were injected subcutaneously with mouse colorectal cancer cells and divided into four treatment groups; specifically: Untreated Control, Rutherrin® only, Vinblastine only and Rutherrin® combined with Vinblastine.

As shown above, the combination of Rutherrin® and Vinblastine significantly delayed tumor volume progression and enhanced overall animal survival, compared to control or either treatment alone. This research was completed using Rutherrin® with no light or radiational activation.

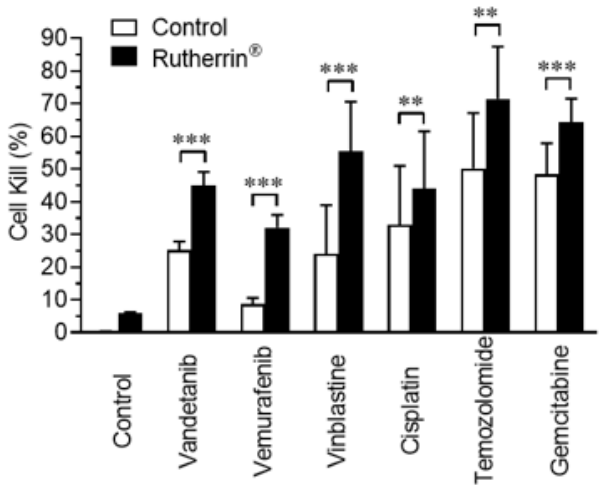

Figure 13.0: Cell Kill Percent After Treatment with Chemotherapeutic Drugs (Listed on X-axis) (+/- Rutherrin® Treatment)

Rutherrin® + Immunotherapy:

Rutherrin® has been preclinically proven effective in increasing the efficacy of immunotherapy. Immunotherapy, the latest technology in the war on cancer, can come in various forms; including: checkpoint inhibitors, Chimeric Antigen Receptor ("**CAR**") T-Cell therapy, cytokines, immunomodulators, cancer vaccines, monoclonal antibodies and oncolytic viruses, but the fundamental MOA of all of these immunogenic drugs is to stimulate the immune system to destroy cancer cells.

Cancer cells hide from the immune system by overexpressing proteins on their cellular surface, known as checkpoint proteins, that prevent the immune system from recognizing and subsequently destroying them. They thus remain incognito to the one failsafe that can protect the human body, the immune system.

The MOA of checkpoint inhibitors is to block the PD-L1 (checkpoint protein) on the cancer cell surface, allowing the immune system to detect and destroy the cancer cell; however, resistance to immunotherapy remains one of the major challenges in this form of treatment. In an attempt to overcome this resistance, multiple immunotherapy treatments are delivered to the patient, which may ultimately lead to a diminishing return in efficacy and a corresponding increase in patient serious adverse events and even treatment-related death.

Theralase®'s latest research demonstrates that Rutherrin® enhances the MOA of immunotherapy by not only killing cancer cells directly, but also significantly reducing the amount of PD-L1 proteins expressed by cancer cells; hence, reducing the number of target checkpoint proteins that need to be blocked by checkpoint inhibitors.

This results in an elegant one-two-three punch on the destruction of cancer cells; where, Rutherrin® delivers the first punch, targeting and destroying cancer cells directly, as well as the second punch, by reducing the number of PD-L1 proteins expressed. This allows immunotherapeutic drugs to deliver the third and final punch, blocking the PD-L1 proteins remaining, allowing the immune system to significantly increase their recognition of cancer cells and hence their destruction. As a result, this technological advance increases both the safety and efficacy of immunotherapy, as less treatments would be required to induce the same clinical effect.

As shown below, treatment of human cancer cells; specifically, NMIBC and GBM with Rutherrin® significantly reduces the expression of PD-L1 checkpoint proteins on the surface of the cancer cells; hence, allowing immunogenic drugs a greater opportunity to block those remaining. This would allow the immune system a much better opportunity to identify them and target them for destruction.

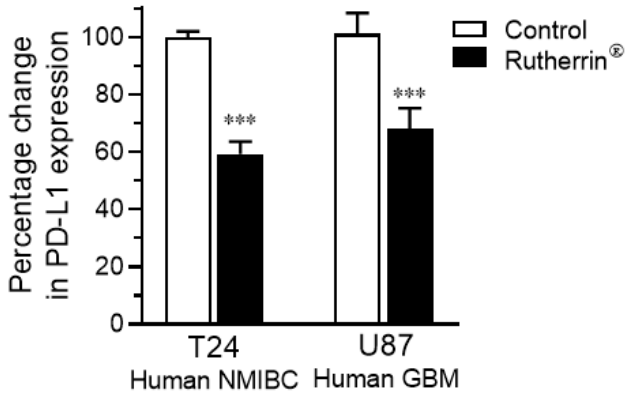

Figure 14.0: Percentage Change in PD-L1 Expression in NMIBC and GBM Cancer Cells

As a primary MOA, Rutherrin®, has been demonstrated clinically to destroy NMIBC, when activated by light, and preclinically to destroy GBM and Non-Small Cell Lung Cancer ("**NSCLC**"), when activated by x-ray radiation.

As a secondary MOA, Rutherrin®, has been demonstrated preclinically to unmask cancer cells through dual immunogenic check points; specifically, CD47 (previously reported by Theralase®) and now PD-L1 inhibition. This down regulation of immunogenic check points allows the cancer cell to be detected and destroyed by the immune system, resulting in a process known as Immunogenic Cell Death ("**ICD**"). ICD is characterized by the secretion of Damage-Associated Molecular Patterns ("**DAMPs**"), which are transported to the cell surface during ICD.

Calreticulin (**"CRT**"), one of the DAMPs found in the lumen of the endoplasmic reticulum, is translocated to the surface of dying cells, after the induction of ICD, where it functions as an "*eat me*" signal for the immune system.

As shown below, radiation alone (Control) causes a mild increase in the percentage of cells expressing CRT on their surface, while the combined treatment of Rutherrin®, plus x-ray radiation significantly increases the surface expression of CRT. The activation of the immune system, due to increased CRT expression, introduces new opportunities for higher cancer cell kill, both locally and against distant/metastatic tumours.

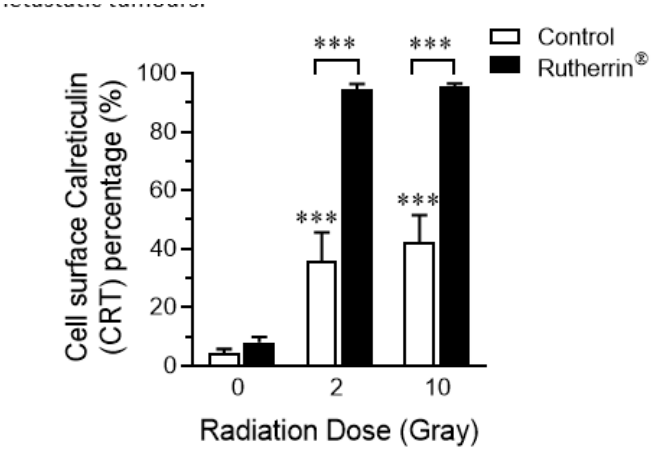

Figure 15.0: Calreticulin Surface Expression After Rutherrin and X-Ray Radiation Treatment

Rutherrin® + Non-Cancer Drugs:

In preclinical research, Rutherrin® was able to repurpose non-cancer drugs for cancer therapy. Drug repurposing is the process of finding new uses for existing clinically approved drugs. Repurposing is a drug development strategy that received heightened attention after the Food and Drug Administration ("**FDA**") granted emergency use authorization of several repurposed drugs to treat the Covid-19 virus. Drug repurposing, defined as researching new indications for already approved drugs or advancing previously studied, but unapproved drugs, is a core approach in drug development. Some reports state that about 30 to 40% of new drugs and biologics approved by the FDA are repurposed or repositioned products, while only 10% of new drug applications achieve approval.

Repurposing drugs has several advantages, such as:

- Cutting research and development costs
- Reducing the drug development timeline
- Reusing drugs that have already demonstrated safety in humans
- Overcoming some of the challenges and knowledge gaps in testing drugs for rare diseases

There is a growing attraction in analyzing off-patent drugs that have established safety, pharmacokinetics (how the human body interacts with a drug) and efficacy to repurpose them for other indications; specifically, cancer, to significantly reduce the cost and time to bring them to market.

Theralase® has demonstrated in preclinical research that Rutherrin® is able to accomplish this task with various drugs, by significantly enhancing their efficacy in the destruction of cancer cells and repurposing their use in the treatment of multiple cancer indications.

- **Withaferin A,** a steroid primarily used as an anti-inflammatory drug to combat cancer-associated inflammation is being investigated to improve immune checkpoint blockers for cancer treatments.
- **Amiodarone**, an anti-arrhythmic medication used to treat and prevent specific types of cardiac dysrhythmias is being investigated as a cancer treatment.
- **Metformin**, which is the most widely prescribed medicine for type 2 diabetes has been investigated for its potential as an anti-cancer treatment.

Cells were treated with Rutherrin®, before addition of each of the drugs mentioned above, to analyze cell survival. As shown below, Rutherrin® significantly increased the cancer cell kill for all tested non-cancer drugs, without light and/or radiation activation, suggesting that Rutherrin® can be combined with these drugs to repurpose them in the destruction of cancer.

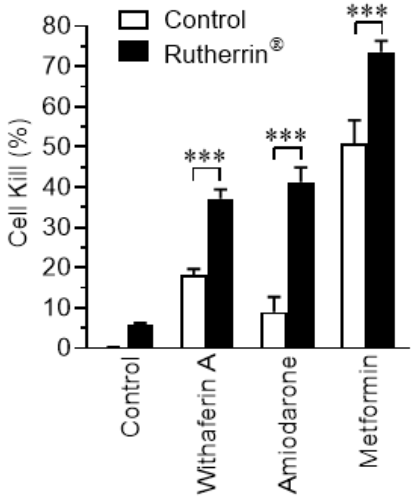

Figure 16.0: Cell Kill (%) After Treatment with Various Drugs (+/- Rutherrin®)

Additional Virus Targets:

Theralase® executed a Sponsored Research Agreement ("**SRA**") with the University of Manitoba ("**UM**") Medical Microbiology department in July 2020, which was extended to June 2024, to commence development of a coronavirus vaccine utilizing Theralase®'s patented and proprietary small molecules. The primary objective of the SRA was to investigate the efficacy of Theralase®'s lead small molecule to destroy a variety of viruses; including: H1N1 Influenza, Zika and coronaviruses (Biological Safety Level ("**BSL**") 2). The secondary objective was to optimize the concentration of the small molecule 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 COVID-19) (BSL-3).

The Company's small molecule technology was effective in the destruction of H1N1 Influenza, Zika virus, Herpes Simplex Virus ("**HSV**"), CoV OC43 coronavirus (BSL-2) at low nanomolar concentrations. In collaboration, with National Microbiology Laboratory, Public Health Agency of Canada ("**PHAC"**) the research and development was expanded to includeSARS-CoV-2 (BSL-3), responsible for COVID-19.

Note: COVID-19 is caused by coronavirus (BSL-3), not coronavirus (BSL-2).

A rapid test was established to measure coronavirus destruction and using this new assay the Theralase® small molecule technology was able to destroy coronavirus (BSL-2) with drug doses 5 times lower than what was used to kill H1N1 Influenza and Zika viruses. These drug doses are significantly lower than those used by the Company to treat cancers and are therefore considered safe for human use.

Further studies have shown that the human coronavirus ("**CoV**") appears to be much more sensitive to the action of the activated Theralase® small molecule vaccine, with a dose as low of 3.3 nM required to inactivate 50%, whereas; 9.2 nM was required to inactivate the same amount of H1N1 Influenza virus and 12 nM was required to inactivate the same amount of Zika virus. The amount of small molecule required to inactivate 99.9% of each virus are 61 nM for CoV, 322 nM for Zika virus and 497 nM for H1N1 Influenza virus, respectively; thus, the Theralase® small molecule is 3 to 5 times more effective against CoV compared to the other tested viruses.

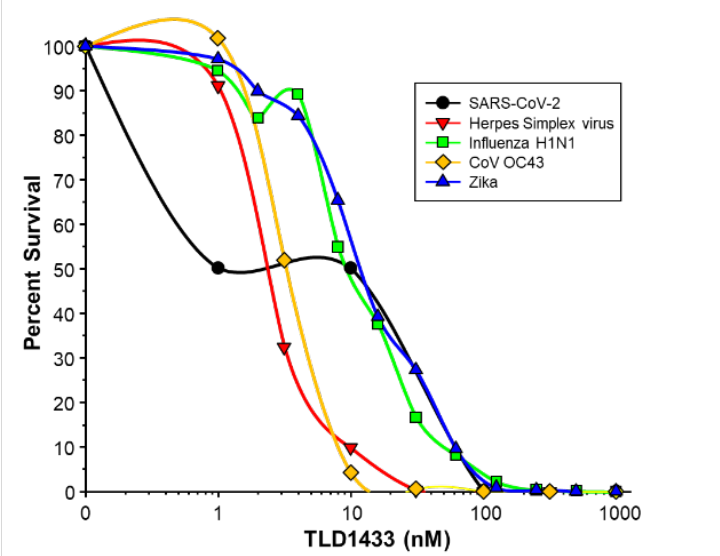

Figure 1. Planktonic inactivation of indicated viruses by light-activated TLD1433. Aliquots of each virus were treated with different concentrations of the Theralase® PDC TLD1433 and incubated for 30-60min. Treated viruses were then irradiated and after an additional "rest" incubation of 15min, residual infectivity of each treatment was titrated by either standard plaque assay (Herpes, IAV H1N1 and Zika), or by immuno-focus assay (CoV OC43), or by $TCID_{50}$ assay (SARS-CoV-2) and compared to non-treated (set as 100%).

Figure 17.0: Planktonic Inactivation of Indicated Viruses by Light-Activated Ruvidar™ (TLD-1433)

The Theralase® compound is also effective without activation, but on average, its activation results in a 4.2 fold increase in Zika virus inactivation, a 12 fold increase in H1N1 Influenza inactivation and an 18.7 fold increase in CoV inactivation.

Further research by UM also identified that the spike protein responsible for the transmission of a coronavirus into a host cell, remained intact after light-activated Ruvidar™ inactivation, suggesting that the vaccine developed by this technology could potentially stimulate a protective antibody immune response in a mammalian host.

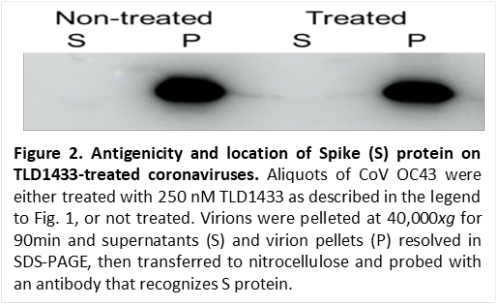

Figure 2. Antigenicity and location of Spike (S) protein on TLD1433-treated coronaviruses. Aliquots of CoV OC43 were either treated with 250 nM TLD1433 as described in the legend to Fig. 1, or not treated. Virions were pelleted at 40,000*xg* for 90min and supernatants (S) and virion pellets (P) resolved in SDS-PAGE, then transferred to nitrocellulose and probed with an antibody that recognizes S protein.

Figure 18.0: Antigenicity and Location of Spike Protein on TLD-1433 Treated Coronaviruses

In April 2021, Theralase® executed a Collaborative Research Agreement ("**CRA**") with the PHAC for the research and development of a Canadian-based SARS-CoV-2 ("**COVID-19"**) vaccine. Under the terms of the agreement, Theralase® and PHAC were collaborating on the development and optimization of a COVID-19 vaccine by treating the SARS-CoV-2 virus grown on cell lines with Theralase®'s patented small molecule and then light activating it with Theralase®'s proprietary TLC-3000A light technology to inactivate the virus and create the fundamental building blocks of a COVID-19 vaccine. This inactivated virus could then be purified and used to inoculate naive animals, followed by challenge with the SARS-CoV-2 virus, to ascertain the efficacy of the vaccine. The project was entitled, "**Photo Dynamic Compound Inactivation of SARS-CoV-2 Vaccine**" and commenced in mid-April 2021.

In February 2022 Theralase® reported that PHAC had demonstrated that light-activated Ruvidar™, was effective in rapidly inactivating the SARS-CoV-2 virus by up to 99.99%, compared to control in an in vitro study. Further research is required to confirm these findings.

The research completed at the laboratory of Kevin Coombs, Ph.D., UM in conjunction with National Microbiology Laboratory and Theralase® was accepted in a peer-reviewed publication, Heliyon, and can be reviewed at: https://doi.org/10.1016/j.heliyon.2024.e32140.

Heliyon is an all-science, open access journal that is part of the Cell Press family. Any paper reporting scientifically accurate and valuable research, which adheres to accepted ethical and scientific publishing standards, will be considered for publication.

Theralase® in conjunction with UM and PHAC subsequently modified their focus to avian influenza (H5N1). These results have now laid the groundwork for the next phase of the CRA, which is evaluating the Theralase® H5N1 vaccine in the ability to prevent animals from contracting H5N1, when exposed to the virus, which commenced in 2Q2024 and is expected to be completed by 4Q2025.

Herpes Simplex Virus

Infectious agents account for millions of deaths every year.[3] Currently, the most effective way to protect against infection involve the use of vaccines and anti-microbials. Vaccines are known to be useful, when administered prior to infection; whereas, antibiotics and anti-virals are most useful after infection or before immunity to a vaccine has had time to develop.

The primary disadvantages of vaccines are that knowledge of the agent is required in advance to manufacture an effective vaccine and substantial time is needed to produce relevant vaccines. Furthermore, the developed vaccine may not match the eventual strain that circulates.[4]

A growing number of anti-viral agents have been developed and some are effective against numerous viruses; however, because viruses replicate and many lack genome proof-reading capabilities, resistance to the anti-viral agent may develop rapidly.[5,6,7]

HSV are large double-stranded DNA viruses that infect more than 90% of the human population and can establish life-long latency in human hosts.[8] Currently, effective FDA approved anti-herpetic drugs include acyclovir and later-generation derivatives (penciclovir, valacyclovir, famciclovir and ganciclovir), which inhibit viral DNA synthesis.

In previous work, Dr. Kevin Coombs, a professor of virology at the University of Manitoba demonstrated that the small molecule, Ruvidar™ could inhibit numerous pathogenic human viruses, when added to solutions of viruses, both with and without light-activation. In these latest experiments, Dr. Coombs evaluated the ability of Ruvidar™ to restrict HSV-1 replication in Vero cells, both by itself and in combination with acyclovir in the absence of light-activation to mimic deep tissue application.

Light-activated Ruvidar™ has been previously demonstrated to be even more effective in the inactivation of HSV versus non-light-activated Ruvidar™.

Ruvidar™ successfully inhibited HSV-1 replication at significantly lower concentrations and more effectively than did the gold standard acyclovir alone. Dr. Coombs also discovered additive and synergistic, anti-HSV-1 effects, when combinational therapy was tested.

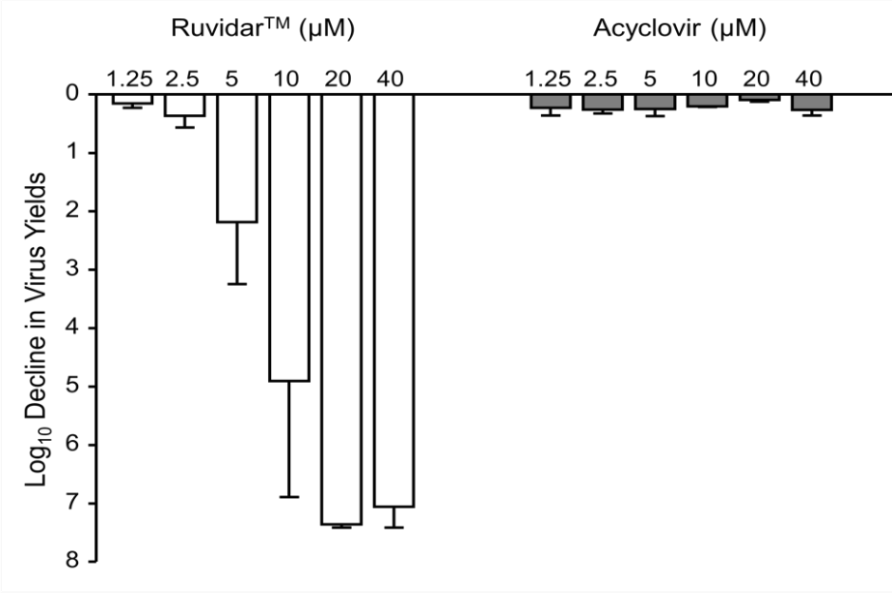

Figure 19.0: Effects of Ruvidar™ versus Acyclovir on HSV-1 Yields When Added 24 Hours Post Infection ("**HPI**").

Vero cells were infected with HSV-1 at Multiplicity of infection ("**MOI**") (the number of virions that are added per cell during infection) ~ 1.5, incubated for 24 hours, then treated at 24 hpi with indicated concentrations of drugs for an additional 44 hours. Virus yields were then determined and reductions in virus yields compared to non-treated controls. Error bars represent the Standard Error of Mean from at least three replicates.

Herpes Simplex Virus ("**HSV**"), known as herpes, is a common infection that can cause painful blisters or ulcers. It primarily spreads by skin-to-skin contact. It is treatable but not curable.[9]

There are two types of HSV: [1]

Type 1 ("**HSV-1**") mostly spreads by oral contact and causes infections in or around the mouth (oral herpes or cold sores). It can also cause genital herpes. Most adults are infected with HSV-1.

Type 2 ("**HSV-2**") spreads by sexual contact and causes genital herpes.

An estimated 3.8 billion people under age 50 (64%) globally have HSV-1, the main cause of oral herpes. An estimated 520 million people aged 15 to 49 (13%) globally have HSV-2, the main cause of genital herpes.[9]

The global HSV treatment market size was estimated at $USD 2.5 billion in 2023 and is expected to grow at a Compound Annual Growth Rate ("**CAGR**") of 8.1% from 2024 to 2030.

The market growth can be attributed to the growing concerns over HSV infection, including, oral and genital herpes. Moreover, the infection is highly contagious, spreading via saliva, vaginal secretion or semen and is acquired unknowingly. These factors highlight the increasing need for treatment throughout the projected period.[10]

North America accounted for the largest market share of 32.4% in 2023, which can be attributed to higher consumption of branded herpes drugs, escalating healthcare expenditure, increasing launch of generics and favorable reimbursement policies.[10]

The HSV-1 lifecycle begins upon contact with mucosal surfaces and it is in this niche, where the virus actively replicates inducing local lesion formation. The virus then enters local sensory nerve endings and migrates back to neuronal cell bodies in the peripheral nervous system. It is in this location where the virus enters into a latent, non-replicative stage until later reactivation.[11]

The ability of HSV-1 to infect and establish latency in neurons allows for lifelong infection and can provide the virus with access to other sites such as the central nervous system. Recent research has implicated HSV-1 infection with the development of disease later in life, including Parkinson's and Alzheimer's diseases.[12,13]
Similarly, reactivation of HSV-1 in autonomic nerves that innervate coronary arteries may introduce lytic virus to vascular endothelial cells, causing local injury, thrombosis and arteriosclerosis, as well as potentially contributing to various other cardiovascular disorders.[14,15]

Evidence has also accumulated indicating that, in addition, HSV may be a cause of human cancers.[16]

Despite longstanding attempts at therapy and prevention, HSV remains among the most prevalent human infectious viral pathogens; therefore, it's imperative to keep HSV from replicating by implementing advanced vaccines and more effective drugs to combat and defeat this pervasive scourge to the human race.

In the latest Theralase® research, Balb/C mice were infected with human HSV-1 virus.

On day 6 post-infection, 20 uL of 1% Ruvidar® solution was applied topically over the area of well-developed lesions, once daily for 4 days.

Four days of Ruvidar® treatment resulted in complete healing of the HSV-1 cutaneous lesions.

Prior to Ruvidar™ Treatment **After Ruvidar™ Treatment**

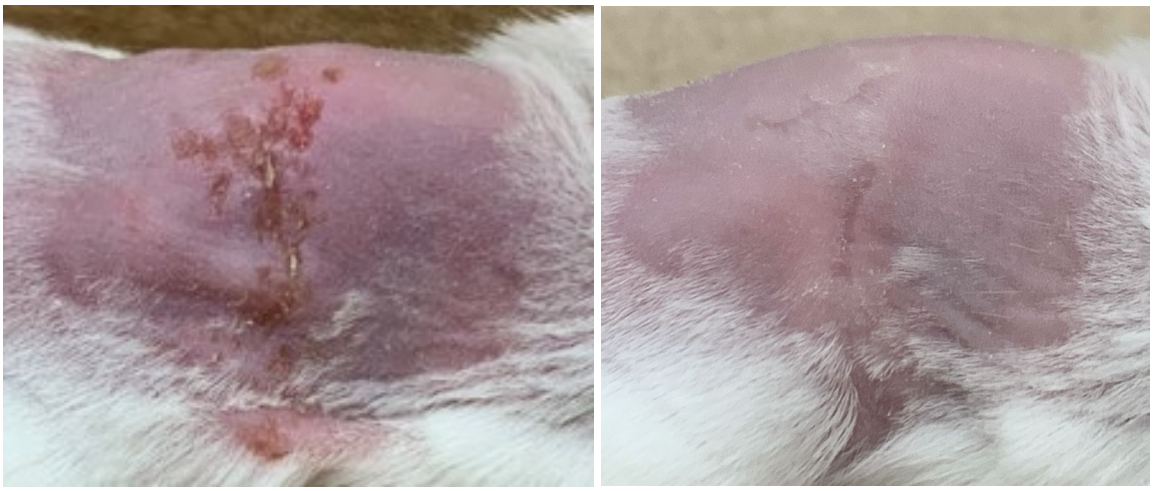

Figure 20.0: Four days of Ruvidar® Treatment in Balb/C Mice with HSV-1 Infected Cutaneous Lesions

The results support the safety and efficacy of topically applied non-light activated Ruvidar® against cutaneous HSV-1 lesions in a mouse model.

Non-Hodgkin's Lymphoma

Rutherrin® is the Company's lead compound currently under development for Intra Venous ("**IV**") administration to treat numerous cancers; including: brain, lung, pancreatic and muscle invasive bladder cancer.

NHL is a cancer that starts in lymphocytes, a type of white blood cell, located in the bone marrow, blood and lymphatic system. Lymphocytes help protect the body against germs and abnormal cells; including, cancer cells.[17]

NHL ranked as the 5th to 9th most common cancer in most countries globally, with an estimated 544,000 new cancer cases and 260,000 cancer deaths in 2020.[18]

The global market for NHL is estimated to reach $USD 16.5 billion by 2031.[19]

In the latest research, mice were inoculated with A20 mouse lymphoma cells subcutaneously ("**SQ**") on day 0. At day 10, tumours reached 3 to 5 mm in size.

<u>To simulate proposed human treatments, mice were treated for 3 weeks with:</u>

- Rutherrin® IV (3 times per week)
- Metformin intraperitoneally (daily)
- Radiation (5 times per week)

All treatments were stopped after 3 weeks of treatment and tumour volumes were assessed.

The results support the use of Rutherrin®, activated by both Metformin and radiation, in the effective treatment of NHL in a SQ mouse model.

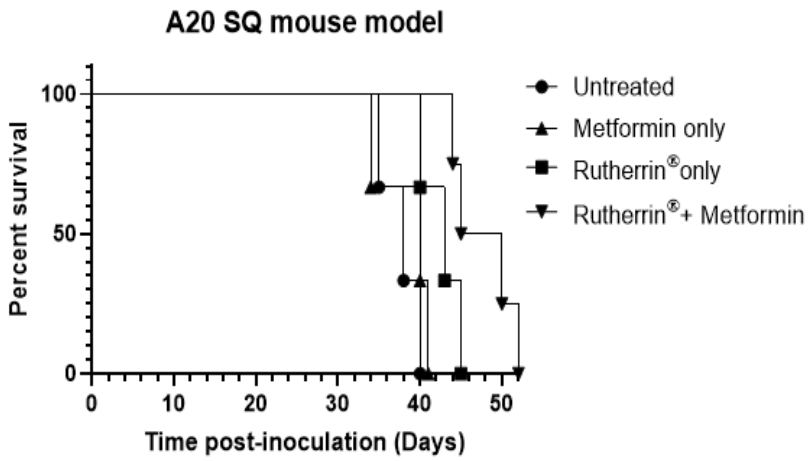

Figure 21.0: Treatment without Radiation

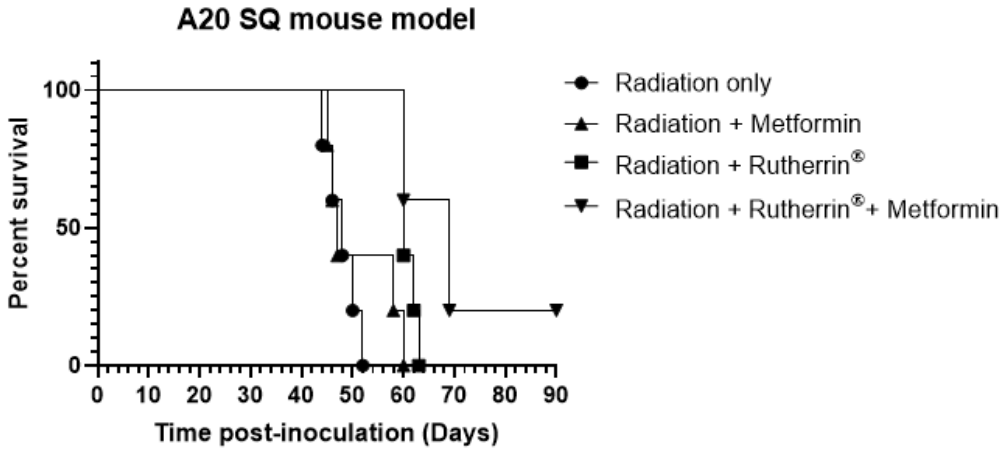

Figure 22.0: Treatment with Radiation

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[19] Global Non-Hodgkin Lymphoma Market $16.5 Billion by 2031. December 2024

Intellectual Property Portfolio Growth

Theralase® received the following decisions to grant a patent in 2024:

Country	Patent Title
Canada	Vaccine Containing Cancer Cells Inactivated by Photodynamic Treatment with Metal-Based Coordination Complexes and Immunotherapy Method Using Same

The patent protects Theralase® small molecule technology in the treatment of a patient with a cancer vaccine; specifically, programmed to destroy their cancer. This is fundamentally accomplished by obtaining a sample of their cancer and treating it extracorporeally with a Theralase® small molecule and then activating the small molecule with either light or radiation. This inactivated cancer is then injected back into the patient intravenously, programming the patient's immune system to recognize, attack and destroy the particular cancer of interest.

Overview of Financial Performance:

During the year ended December 31st, 2024, the Company's financial performance and its operating results reflect the continued investment by the Company into its future prosperity through the research, development, preclinical and clinical initiatives culminating in the successful completion of the Phase Ib NMIBC clinical study and the launch of Study II.

Summary of Selected Audited Annual Information:

(Canadian Dollars)

For the twelve-month periods ended December 31st:

	2024	2023
Total revenues	$ 1,033,431	$ 1,070,307
Net loss	(4,256,114)	(4,570,879)
Basic and diluted loss per share	$ (0.018)	$ 0.022
Total assets	$ 3,246,949	$ 3,276,806
Total liabilities	1,179,501	1,371,364
Deficit	(67,496,119)	(63,240,005)
Shareholders' Equity	$ 2,067,448	$ 1,905,442

Summary of Quarterly Results:

(Canadian Dollars)

	2024			
For the period ending:	**March 31**	**June 30**	**September 30**	**December 31**
Total revenues	$ 175,554	$ 100,847	$ 346,583	$ 410,447
Net loss	(1,266,711)	(1,133,750)	(937,534)	(918,119)
Basic and diluted loss per share	$ (0.006)	$ (0.004)	$ (0.004)	$ (0.004)

As at:	**March 31**	**June 30**	**September 30**	**December 31**
Total assets	$ 3,246,059	$ 3,384,859	$ 3,222,164	$ 3,246,949
Total liabilities	1,275,610	1,727,356	1,083,190	1,179,501
Deficit	(64,506,716)	(65,640,466)	(66,578,000)	(67,496,119)
Shareholders' Equity	$ 1,970,449	$ 1,657,503	$ 2,138,974	$ 2,067,448

	2023			
For the period ending:	**March 31**	**June 30**	**September 30**	**December 31**
Total revenues	$ 207,161	$ 218,926	$ 280,608	$ 363,612
Net loss	(1,408,953)	(1,155,234)	(1,015,668)	(991,024)
Basic and diluted loss per share	$ (0.007)	$ (0.005)	$ (0.005)	$ (0.005)

As at:	**March 31**	**June 30**	**September 30**	**December 31**
Total assets	$ 3,200,969	$ 3,380,338	$ 3,000,125	$ 3,276,806
Total liabilities	1,350,759	1,342,906	1,368,257	1,371,364
Deficit	(60,078,080)	(61,233,313)	(62,248,981)	(63,240,005)
Shareholders' Equity	$ 1,850,210	$ 2,037,432	$ 1,631,868	$ 1,905,442

Fourth Quarter Results:

Summary of the fourth quarter results for the three-month period ended December 31:

	2024	2023
Sales	**410,447**	363,612
Cost of sales	**147,268**	144,292
Gross margin	**263,179**	219,320
Operating expenses		
Selling expenses	**96,701**	84,448
Administrative expenses	**439,096**	439,078
Research and development expenses	**652,975**	696,683
(Gain) loss on foreign exchange	**4,973**	(3,805)
Interest accretion on lease liabilities	**5,422**	7,031
Interest income	**(17,870)**	(13,090)
	1,181,298	1,210,345
Net loss and comprehensive loss for the period	**(918,119)**	(991,024)

For the three-month period ended December 31, 2024, total revenue increased to $410,447 from $363,612 for the same period in 2023, a 13% increase.

Cost of sales for the three-month period ended December 31, 2024 was $147,268 (36% of revenue) resulting in a gross margin of $263,178 or 64% of revenue compared to a cost of sales of $144,291 (40% of revenue) resulting in a gross margin of $219,320 or 60% of revenue. The percentage decrease in cost of sales, year over year, is attributed to a write-down of obsolete inventory of $89,325 in 2023.

Selling and marketing expenses for the three-month period ended December 31, 2024, increased to $96,701 or 24% of sales, from, from $84,448 or 23% of sales in 2023, a 15% increase. Selling and marketing expenses increased year over year, due to increased spending in commissions and travel.

Administrative expenses for the three-month period ended December 31, 2024, were $439,069 (2023 - $439,079).

Net research and development expenses totaled $652,974 for the three-month period ended December 31, 2024, compared to $696,683 in 2023, a 6% decrease. Research and development expenses decreased primarily due to decreased expenses for Study II patient enrollment and treatment.

Liquidity and Capital Resources:

As of December 31st, 2024, total current assets aggregated $1,583,666 compared with total current liabilities of $985,948 netting working capital of $597,717 and a current ratio (current assets versus current liabilities) of approximately 1.6:1.

The Company's objective is to maintain a sufficient capital base to support future research, development and strategic business initiatives allowing the Company to invest in its future and maintain investor, creditor and market confidence. The capital structure of the Company consists of cash, cash equivalents and shareholders' equity.

The Company is not subject to any externally imposed capital requirements and the Company does not use financial ratios to manage capital. There were no changes in the Company's approach to capital management during the years presented.

Going Concern:

The consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards (**"IFRS"**) as issued by the International Accounting Standards Board (**"IASB"**) and includes interpretations of the IFRS Interpretations Committee (**"IFRISIC"**) on a going concern basis, which contemplates the realization of assets and the discharge of liabilities in the normal course of business for the foreseeable future.

For the year ended December 31, 2024, the Company had a net loss of $4,256,114 (2023 -$4,570,879), an accumulated deficit of $67,496,119 (2023 - $63,240,005) and has historically used net cash in operations.

These conditions indicate the existence of material uncertainties that cast substantial doubt about the Company's ability to continue as a going concern, which is dependent upon achieving a profitable level of operations and obtaining additional financing, neither of which are assured.

The Company's objective is to maintain a sufficient capital base to support future research, development and strategic business initiatives allowing the Company to invest in its future and maintain investor, creditor and market confidence. Sales of the TLC-2000, the Company's existing product line have not met expectations and have not been sufficient in and of themselves to enable the Company to fund all its continuing development and commercialization efforts and, accordingly the Company will require additional capital to continue to research and develop its drug technology and market its device products as it continues to develop sales opportunities. The Company is currently seeking new financing opportunities and intends to complete a financing round in Q1 and Q2 2025. The Company has successfully raised capital

through equity offerings in 2024, 2023 and 2022; however, there is no guarantee that the Company will be able to raise additional capital on terms and conditions agreeable to the Company. The Company continues to closely monitor its expenses to preserve cash resources until new financing is obtained. These material uncertainties may cast significant doubt about the Company's ability to continue as a going concern.

Management believes the Company will be able to continue in operation for the foreseeable future and secure additional financing to satisfy its liabilities and commitments in the normal course of business. Accordingly, it is appropriate to prepare these consolidated financial statements on a going concern basis.

Results of Operations:

Sales:

For the year ended December 31st, 2024, total revenue decreased to $1,033,431 from $1,070,307 for the same period in 2023, a 3% decrease.

	2024	2023
Sales Revenue	**$ 900,195**	$ 907,352
Service Revenue	**119,273**	141,063
Other Revenue	**13,963**	21,892
	$1,033,431	$1,070,307

The TLC-2000 represented 85% of sales for the year ended December 31, 2024 and 83% of sales for the same period in 2023.

In Canada, revenue increased 7% to $896,090 from $840,229. In the US, revenue decreased 49% to $115,732 from $228,395. International sales increased to $21,609 from $1,683.

Cost of Sales:

Cost of sales for the year ended December 31, 2024 was $479,406 (46% of revenue) resulting in a gross margin of $554,026 (54% of revenue). In comparison, the cost of sales for the same period in 2023 was $508,173 (47% of revenue) resulting in a gross margin of $562,144 (53% of revenue). Cost of sales is represented by the following costs: raw materials, subcontracting, direct and indirect labour and the applicable share of manufacturing overhead.

The gross margin increase, as a percentage of sales, year over year, is attributed to a write-down of obsolete inventory of $89,325 in 2023.

Operating Expenses:

For the year ended December 31, 2024, selling expenses increased to $354,636, from $278,866 for the same period in 2023, a 27% increase and consisted of the following items:

	2024	2023
Sales salaries	**$ 233,420**	$ 167,556
Advertising	**31,668**	19,166
Commission	**47,023**	49,781
Travel	**26,368**	28,239
Stock based compensation	**2,895**	621
Amortization and depreciation allocation	**13,262**	13,503
Total selling expenses	**$ 354,636**	$ 278,866

The increase in selling expenses is primarily a result of increased spending for sales salaries (39%), and advertising (65%).

Administrative expenses for the year ended December 31, 2024, decreased to 1,734,066 from $1,895,460 for the same period in 2023, a 9% decrease and consisted of the following items:

	2024	2023
Insurance	**$ 52,680**	$ 54,592
Professional fees	**234,526**	326,492
Rent	**41,216**	41,216
General and administrative expenses	**196,622**	251,991
Investor Relations	**327,756**	273,102
Administrative salaries	**434,763**	451,226
Director and advisory fees	**89,717**	85,734
Stock based compensation	**330,260**	377,349
Amortization and depreciation allocation	**26,526**	33,759
Total administrative expenses	**$ 1,734,066**	$ 1,895,460

The decrease in administrative expenses is primarily a result of reduced spending on professional fees (28%) and general and administrative expenses (22%).

Stock based compensation expense decreased 12% in 2024, due to the cumulative effect of accounting for vesting of stock options granted in the current and prior years.

Net research and development expenses for the year ended December 31, 2024, decreased to $2,735,674 from $2,982,073 for the same period in 2023, an 8% decrease, and consisted of the following items:

	2024	2023
Research and development (net of investment tax credit)	**$ 2,356,654**	$ 2,529,085
Stock based compensation	**187,938**	243,271
Amortization and depreciation allocation	**209,082**	209,717
Total research and development expenses	**$ 2,753,674**	$ 2,982,073

The decrease in research and development expenses is attributed to the decrease in costs for Study II patient enrollment and treatment. Research and development expenses represented 57% of the Company's operating expenses and represent investment into the research and development of the Company's Drug Division.

Net Profit (Loss):

The net loss for the year ended December 31, 2024, was $4,256,114, which included $827,397 of net non-cash expenses (i.e.: amortization, stock-based compensation expense and foreign exchange gain/loss). This compared to a net loss in 2023 of $4,570,879, which included $933,790 of net non-cash expenses. The Drug Division represented $3,584,871 of this loss (84%) in 2024.

The decrease in net loss is primarily attributed to decreased spending on research and development expenses in Study II.

Cash Flows:

Cashflows for the twelve-month periods ended December 31st are as follows:

	2024	2023
Net loss and comprehensive loss	**$ (4,256,114)**	$ (4,570,879)
Items not involving cash	**827,397**	933,790
Cash provided by operations	**(3,428,717)**	(3,637,089)
Net change in non-cash working capital	**102,651**	(435,717)
Cash (used in) provided by operating activities	**(3,326,066)**	(4,072,806)
Cash (used in) provided by investing activities	**(19,967)**	(37,265)
Cash (used in) provided by financing activities	**3,570,879**	2,645,364
Net change in cash and cash equivalents during the period	**224,846**	(1,464,706)
Cash and cash equivalents, beginning of year	**43,911**	1,508,617
Cash and cash equivalents, end of period	**268,757**	43,911

Funds used in operating activities, after taking into account net changes in other non-cash operating items were $3,326,066 for the year ended December 31, 2024, compared to funds used of $4,072,806 in 2023. The decrease is attributed to lower administrative and research and development expenses offset by increased spending in selling expenses.

Funds used in investing for the year ended December 31, 2024, amounted to $19,967 compared to $37,265 in 2023. The decrease is attributed to decreased spending on equipment related to Study II.

Funds received in financing activities amounted to $3,570,879 for the year ended December 31, 2024, compared to funds received of $2,645,364 in 2023. The increase is attributed to the February 5th, April 24th, July 8th, September 24th and November 15th, 2024 non-brokered private placements.

Assets (other than Cash):

The Company holds essential and valuable intellectual property rights and assets; including: patents, trademarks, development and other related costs.

Net Investment in Leases:

Net investment in leases represents amounts owing from customers to whom the Company sold products under a finance lease with a payment term of 60 months.

	2024	2023
Lease beginning balance	**$ 1,193,605**	$ 694,204
New leases for the period	**538,547**	694,149
Interest charge for the period[1]	**70,053**	44,230
Lease payments for the period[2]	**(363,888)**	(238,979)
Total	**$ 1,438,316**	$ 1,193,605

1) Lease investments are discounted using prime rate at time of inception.
2) Lease investments does not include any variable payments of $0.50 per minute of use.

Principal receivables of the Company's investment in leases until maturity are as follows:

	Undiscounted Lease Receivable	Discounted Lease Receivable	Unearned Finance Income
2025	$ 458,491	380,825	77,667
2026	461,079	409,062	52,017
2027	367,668	343,363	24,305
2028	223,611	209,811	13,800
2029	91,453	88,447	3,006
2030	8,463	6,806	1,657
Total	**$ 1,610,765**	**$ 1,438,315**	**$ 172,451**

Commitments:

As of December 31, 2024, the Company's commitments consisted of the following:

	Total	2025	2026	2027	2028	2029	2030	2031
Research Agreement (a)	$ 29,354	$ -	$ 29,354	$ -	$ -	$ -	$ -	$ -
Research Agreement (b)	107,120	55,020	8,800	8,800	8,800	8,800	8,800	8,100
Total	**$ 136,474**	**$ 55,020**	**$ 38,154**	**$ 8,800**	**$ 8,800**	**$ 8,800**	**$ 8,800**	**$ 8,100**

a) Research Commitments under a research agreement with a Clinical Research Organization for the TLC-3200 cancer therapy project. Under the terms of this agreement, the Company is required to pay $126,324 ($USD 96,800) for the period from July 23, 2019 through to the end of the Phase II Clinical Study. The Company has paid $101,355 ($USD 76,400) relating to this commitment, of which $29,354 ($USD 20,400) is the remaining commitment.

b) Research Commitments under a research agreement with a Contract Manufacturer for the TLC-3200 cancer therapy project. Under the terms of this agreement, the Company is required to pay $478,700 for the period from April 29, 2021 through to November 15, 2031. The Company has paid $371,530 relating to this commitment, of which $107,170 is the remaining commitment.

The Company indemnifies its directors and officers against any and all costs, charges and expenses, including settlement of claims in respect of any civil, criminal or administrative action incurred in the performance of their service to the Company to the extent permitted by law. The Company maintains liability insurance for its officers and directors.

Lease Liabilities and Right-of-Use-Assets:

The Company leases premises consisting of its office and manufacturing facilities. On May 20th, 2022, the Company extended the lease of its premises for an additional 5 years until September 30th, 2027.

Principal and interest repayments of the Company's leased premises and office equipment until maturity are as follows:

	Property	Office Equipment
2025	115,575	2,148
2026	117,300	895
2027	87,975	-
	$ 320,850	**$ 3,043**

Share Capital Analysis:

As of March 11, 2025, the share capital of the Company consisted of 248,814,371 common shares. Each common share entitles the holder to one vote per share.

As of March 11, 2025, there were 19,620,000 options outstanding, of which 5,360,000 were vested and exercisable into an equivalent number of the Company's common shares.

As of March 11, 2025, there were 43,310,762 warrants outstanding. Each whole warrant entitles the holder thereof to purchase one additional common share. The warrants are exercisable as follows:

- 10,000,000 at a price of $CAN 0.35 until September 22nd, 2027
- 1,000,000 at a price of $CAN 0.35 until November 17th, 2027
- 4,805,400 at a price of $CAN 0.35 until June 30th, 2025
- 1,840,000 at a price of $CAN 0.35 until September 7, 2025
- 5,318,183 at a price of $CAN 0.28 until November 29, 2028
- 6,670,836 at a price of $CAN 0.25 until February 5, 2029
- 4,167,778 at a price of $CAN 0.25 until April 24, 2029
- 3,522,729 at a price of $CAN 0.30 until July 8, 2029
- 2,730,500 at a price of $CAN 0.30 until September 24, 2029
- 2,221,334 at a price of $CAN 0.45 until November 15, 2029
- 1,034,002 at a price of $CAN 0.45 until March 11, 2030

As of March 11, 2025, there were 18,864 finder's units that were issued in connection with the November 29, 2023, non-brokered private placement. Each finder's unit entitles the holder thereof to acquire one common share and one common share purchase warrant at a price of $CAN 0.22 per unit until November 29, 2028.

Segmented Information:

For management purposes, the Company is organized into two separate reportable operating divisions, the Drug Division and the Device Division. The Drug Division is responsible for the research and development of small molecules primarily for the treatment of cancer with assistance from the Device Division to develop medical lasers to activate them. The Device Division is responsible for the Company's medical laser business, which researches, develops, manufactures and distributes Cool Laser Therapy systems to healthcare practitioners predominantly for the healing of pain.

The following table displays revenue and direct expenses from the drug and device division for the twelve-month periods ended December 31:

	2024			2023		
	Device	**Drug**	**Total**	Device	Drug	Total
Sales	**$ 1,033,431**	**$ -**	**$ 1,033,431**	$ 1,070,307	$ -	$ 1,070,307
Cost of sales	**479,405**	**-**	**479,405**	508,173	-	508,173
Gross margin	**554,026**	**-**	**554,026**	562,134	-	562,134
Operating Expenses						
Selling expenses	**354,636**	**-**	**354,636**	278,866	-	278,866
Administrative expenses	**744,758**	**989,307**	**1,734,065**	788,154	1,107,306	1,895,460
Research and development expenses	**175,217**	**2,578,457**	**2,753,674**	43,828	2,938,245	2,982,073
Loss on foreign exchange	**5,041**	**5,041**	**10,081**	(1,991)	(1,991)	(3,981)
Interest accretion on lease liabilities	**12,068**	**12,068**	**24,135**	15,203	15,203	30,406
Interest income	**(66,451)**	**-**	**(66,451)**	(49,811)	-	(49,811)
	1,225,269	**3,584,871**	**4,810,140**	1,074,249	4,058,764	5,133,013
Loss for the period	**$ (671,243)**	**$ (3,584,871)**	**$ (4,256,114)**	$ (512,115)	$ (4,058,764)	$ (4,570,879)
Total Assets	**$ 2,468,374**	**$ 778,575**	**$ 3,246,949**	$ 2,527,201	$ 749,605	$ 3,276,806
Total Liabilities	**404,381**	**775,120**	**1,179,501**	579,443	787,521	1,371,364

The following table displays revenue and direct expenses from the device division product sales by product line and geographic area for twelve-month periods ended December 31:

	2024			2023		
	Canada	**USA**	**International**	Canada	USA	International
Sales by Product Line						
TLC-1000	**$ 86,878**	**$ 72,451**	**$ -**	$ 118,316	$ 64,227	$ -
TLC-2000	**809,211**	**43,281**	**21,609**	721,912	164,168	1,683
	896,090	**115,732**	**21,609**	840,229	228,395	1,683
Expenses						
Cost of Sales	**415,693**	**53,688**	**10,024**	398,934	108,440	799
Selling Expenses	**278,587**	**62,921**	**13,127**	235,473	34,309	9,084
	694,281	**116,608**	**23,151**	634,407	142,749	9,883
	$ 201,810	**$ (877)**	**$ (1,543)**	$ 205,822	$ 85,646	$ (8,200)

As at December 31, 2024 and December 31, 2023, the Company's long-lived assets used in operations are all located in Canada. Timing of revenue is recognized at a point in time.

Selected Financial Information and Accounting Policies:

The audited consolidated financial statements for the year ended December 31, 2024, and all other financial statements referred to herein, have been prepared in accordance with International Financial Reporting Standards ("**IFRS**"), consistently applied, and all amounts and currencies reported therein, and in this MD&A, are in Canadian dollars, unless otherwise noted. The ongoing accounting policies are more particularly described in the Notes to the audited annual consolidated financial statements for the year ended December 31st, 2024. Please refer to the Company's annual and quarterly financial statement filings, including material interim press releases, at www.sedarplus.ca.

Use of Financial Instruments:

The Company's financial instruments consists of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities. The fair value of cash, accounts receivable, accounts payable and accrued liabilities approximate carrying value because of the short-term nature of these instruments.

IFRS 7 Financial Instruments Disclosures establishes a fair value hierarchy that reflects the significance of inputs used in making fair value measurements as follows:

Level 1: quoted prices in active markets for identical assets or liabilities;

Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. from derived prices); and

Level 3: inputs for the asset or liability that are not based upon observable market data.

Cash and cash equivalents, trade and other receivable and payables and accrued liabilities are valued at Level 1. These are stated at fair value due to the short-term maturities of these instruments.

The investment in leases is fair valued using Level 3. All future receipts have been discounted using the Bank prime rate of interest as at December 31, 2024. No Level 3 adjustment was required. (See page 32 for reconciliation)

(i) Credit risk:

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Company's trade and other receivable. The amounts receivable reported in the consolidated balance sheets are net of allowances for credit losses, estimated by the Company's management based on prior experience and its assessment of the current economic environment. The Company reviews its trade receivable and investment in leases regularly and reduces amounts to their expected realizable values by adjusting the allowance for credit losses when management determines that the account may not be fully collectible. The Company has adopted credit policies in an effort to minimize those risks. The carrying value of trade and other receivables and investment in leases represent the Company's maximum exposure to credit risk.

(ii) Liquidity risk:

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages its liquidity risk by continuously monitoring forecasted and actual cash flows, as well as anticipated investing and financing activities. The Company does not have material long-term financial liabilities.

(iii) Interest rate risk:

Interest rate risk is the risk that changes in interest rates will affect the Company's income or the value of the financial instruments held. Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The Company's exposure to interest rate risk is as follows:

Cash and cash equivalents	Short-term fixed and variable interest rate
Financed trade receivables	Long-term fixed interest rate

(iv) Foreign currency exchange risk:

The Company is exposed to foreign currency exchange risk. This risk arises from the Company's holdings of US dollar denominated cash, trade and other receivables and payables and accrued liabilities. Changes arising from this risk could impact the Company's reported foreign currency exchange gains or losses.

The Company has not entered into any conventional or other financial instruments designed to minimize its investment risk, currency risk or commodity risk. No off-balance sheet arrangements have been established nor are there any pending proposals or indicated business requirements to this effect.

Critical Accounting Policies, Estimates and Judgments:

As noted above, the Company's audited consolidated financial statements as of December 31, 2024 and audited consolidated financial statements as of December 31, 2023, respectively, and for the year ended December 31, 2024 and 2023, respectively, have been prepared in accordance with IFRS. The policies applied are based on IFRS issued and outstanding as of March 11, 2025 which is the date at which the Company's Board of Directors approved the audited consolidated financial statements.

Additionally, the preparation of the audited consolidated financial statements in accordance with IFRS often requires management to make estimates about and apply assumptions or subjective judgment to future events and other matters that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. Assumptions, estimates and judgments are based on historical experience, expectations, current trends and other factors that management believes to be relevant at the time at which the audited consolidated financial statements are prepared. Management reviews, on a regular basis, the Company's accounting policies, assumptions, estimates and judgments, in order to ensure

that the audited consolidated financial statements are presented fairly and in accordance with IFRS.

Critical accounting estimates and judgments are those that have a significant risk of causing material adjustment and are often applied to matters or outcomes that are inherently uncertain and subject to change. As such, management cautions that future events often vary from forecasts and expectations and that estimates routinely require adjustment. A summary of those areas where the Company's management believe critical accounting policies affect the significant judgments and estimates used in the preparation of the consolidated financial statements can be found in note 2 to the audited consolidated financial statements of December 31, 2024 and 2023.

Disclosure of Internal Controls:

Management has established processes, which are in place to provide them sufficient knowledge to support management representations that they have exercised reasonable diligence that:

(i) the consolidated financial statements do not contain any untrue statement of material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it is made, as of the date of and for the periods presented by the consolidated financial statements; and

(ii) the consolidated financial statements fairly present in all material respects the financial condition, financial performance and cash flows of the Company, as of the date of and for the periods presented by the consolidated financial statements.

In contrast to the certificate required under National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* ("**NI 52-109**"), the Company utilizes the Venture Issuer Basic Certificate, which does not include representations relating to the establishment and maintenance of Disclosure Controls and Procedures ("**DC&P**") and Internal Control over Financial Reporting ("**ICFR**"), as defined in NI 52-109.

In particular, the certifying officers filing the Certificate are not making any representations relating to the establishment and maintenance of:

(i) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(ii) a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP. The Company's certifying officers are responsible for ensuring that processes are in place to provide them with sufficient knowledge to support the representations they are making in the certificate.

Investors should be aware that inherent limitations on the ability of certifying officers of a venture issuer to design and implement on a cost-effective basis DC&P and ICFR as defined in NI 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

In connection with the audits of the Company's consolidated financial statements for the years' ended December 31, 2024 and 2023, the Company's independent registered public accountants identified certain material weaknesses in the Company's internal control over financial reporting. Such material weaknesses continue to exist as of March 11, 2025. A "material weaknesses" is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company's annual or interim consolidated financial statements will not be prevented or detected on a timely basis. The material weaknesses relate to not having a

full segregation of duties within members of its accounting staff dedicated to financial reporting functions so that all journal entries and account reconciliations are reviewed by someone other than the preparer, heightening the risk of error or fraud. If the Company is unable to remediate the material weakness, or other control deficiencies are identified, the Company may not be able to report its financial results accurately or prevent fraud.

Risks and Uncertainties:

The Company's operations involve certain risks and uncertainties that are inherent to the Company's industry. The most significant known risks and uncertainties faced by the Company are described below.

Limited Operating History:
The Company is still in the development and commercialization stages of its businesses and therefore will be subject to the risks associated with early-stage companies, including uncertainty of the success and acceptance of its products, uncertainty of revenues, markets and profitability and the continuing need to raise additional capital. The Company's business prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in this stage of development. Such risks include the evolving and unpredictable nature of the Company's business, the Company's ability to anticipate and adapt to a developing market, acceptance by consumers of the Company's products, the ability to identify, attract and retain qualified personnel and the ability to generate sufficient revenue or raise sufficient capital to carry out its business plans. There can be no assurance that the Company will be successful in adequately mitigating these risks.

Working Capital and Capital Resources:
The Company has not been able to consistently generate sufficient profits from its revenue to provide the financial resources necessary to continue to have sufficient working capital for the development of its products and marketing activities. There is no assurance that future revenues will be sufficient to generate the required funds to continue product development, business development and marketing activities or that additional funds required for such working capital will be available from financings.

These conditions indicate the existence of material uncertainties that cast substantial doubt about the Company's ability to continue as a going concern. The Company's ability to continue as a going concern is dependent upon achieving a profitable level of operations and obtaining additional financing, neither of which is assured. The Company has been able, to date, to raise capital via private placements to continue to market its products and continues to develop sales opportunities which could result in additional sales of its products in the future.

In order to achieve its long-term development and commercialization strategy for the Company's range of therapeutic laser systems and small molecule anti-cancer technology, the Company may need to raise additional capital through the issuance of shares, collaboration agreements or strategic partnerships that would allow the Company to finance its activities. There is no assurance that additional funds will be available as required or that they may be available on acceptable terms and conditions. Additional financing may also result in dilution of shareholder value.

Key Personnel:
The Company's success is dependent upon its ability to attract and retain a highly qualified work force, and to establish and maintain close relationships with research centers. Competition is intense and the Company's success will depend, to a great extent, on its senior and executive managers, scientific personnel and academic partners. The loss of one or more of its key employees or the inability to attract and retain highly skilled personnel could have a material adverse effect on the Company's development of its products, operations or business prospects.

Protection of Intellectual Property:
The Company's success will depend in part on its ability to obtain patents, protect its trade secrets and operate without infringing the exclusive rights of other parties. There is no guarantee that any patent that will be granted to the Company will bring any competitive advantage to the Company, that its patent protection will not be contested by third parties, or

that the patents of competitors will not be detrimental to the Company's commercial activities. It cannot be assured that competitors will not independently develop products similar to the Company's products, that they will not imitate the Company's products or that they will not circumvent or invalidate patents granted to the Company.

Although the Company does not believe that its products infringe the proprietary rights of any third parties, there can be no assurance that infringement or invalidity claims (or claims for indemnification resulting from infringement claims) will not be asserted or prosecuted against the Company or that any such assertions or prosecutions, valid or otherwise, will not materially adversely affect the Company's business, financial condition or results of operations. Irrespective of the validity of the successful assertion of such claims, the Company could incur significant costs and diversion of resources with respect to the defense thereof, which could have a material adverse effect on the Company. The Company's performance and ability to develop markets and compete effectively are dependent to a significant degree on its proprietary and patented technology. The Company relies on its patents and trade secrets, as well as confidentiality agreements and technical measures, to establish and protect its proprietary rights. While the Company will endeavor to protect its intellectual property, there can be no assurance that the steps taken will prevent misappropriation or that agreements entered into for that purpose will be enforceable. The laws of certain other countries may afford the Company little or no effective protection of its intellectual property.

Competition:

Many of the Company's current and potential competitors have longer operating histories, larger customer bases, greater name and brand recognition and significantly greater financial, sales, marketing, engineering, scientific, technical and other resources than the Company. These competitors have research and development capabilities that may allow them to develop new or improved products that may compete with the Company's products. New technologies and the expansion of existing technologies may also increase competitive pressures on the Company. Increased competition may result in reduced operating margins as well as loss of market share and could result in decreased usage in the Company's products and may have a material adverse effect on the Company.

Implementation Delays:

Many of the Company's products will be in development, testing or preliminary stage and there may be delays or other problems in the introduction of the Company's products. The Company cannot predict when customers that are in a testing or preliminary use phase of the Company's products will adopt a broader use of the products. The market for the Company's products is relatively new and continues to evolve. The Company's products will involve changes in the manner in which businesses have traditionally used such products. In some cases, the Company's customers will have little experience with products offered by the Company. The Company will have to spend considerable resources educating potential customers about the value of the Company's products. It is difficult to assess, or predict with any assurance, the present and future size of the potential market for the Company's products or its growth rate, if any. The Company cannot predict whether or not its products will achieve market acceptance.

Strategic Alliances:

The Company's ability to successfully complete the research and development of its products and its growth and marketing strategies are based, in significant part, in the strategic alliances it has in place and the licenses and agreements securing those strategic alliances. The Company's success will depend upon the ability to seek out and establish new strategic alliances and working relationships. There can be no assurance that existing strategic alliances and working relationships will not be terminated or adversely modified in the future, nor can there be any assurance that new relationships, if any, will afford the Company the same benefits as those currently in place.

Trade Secret Protection:

Because the Company relies on third parties to develop its products, the Company must share trade secrets with them. The Company seeks to protect its proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with its collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically restrict the ability of its collaborators, advisors, employees and

consultants to publish data potentially relating to its trade secrets. The Company's academic collaborators typically have rights to publish data, provided that the Company is notified in advance and may delay publication for a specified time in order to secure its intellectual property rights arising from the collaboration. In other cases, publication rights are controlled exclusively by the Company, although in some cases the Company may share these rights with other parties. The Company also conducts joint research and development programs which may require the Company to share trade secrets under the terms of research and development collaboration or similar agreements. Despite the Company's efforts to protect its trade secrets, the Company's competitors may discover the Company's trade secrets, either through breach of these agreements, independent development or publication of information including the Company's trade secrets in cases where the Company does not have proprietary or otherwise protected rights at the time of publication. A competitor's discovery of the Company's trade secrets may impair the Company's competitive position and could have a material adverse effect on the Company's business and financial condition.

Product Deficiencies:

Given that the Company's products are either fairly new, or are in various stages of development, there may be difficulties in product design, performance and reliability which could result in lost revenue, delays in customer acceptance of the Company's products and legal claims against the Company, which would be detrimental, perhaps materially to the Company's market reputation and ability to generate further sales. Serious defects are frequently found during the period immediately following the introduction of new products or enhancements to existing products and undetected errors or performance problems may be discovered in the future. Product defects may expose the Company to liability claims, for which the Company may not have sufficient liability insurance.

Dependence on Third Party Suppliers:

The Company has established relationships with certain third-party suppliers upon whom it relies on to provide key materials and components for completion of its products. In the event of the inability of these third parties to supply such materials and components in a timely manner or to supply materials and components that continue to meet the Company's quality, quantity or cost requirements, the Company would be required to purchase these materials and components from other suppliers. There is no assurance that other suppliers can be found in such circumstances who can supply the materials and components in a timely manner or that meet the Company's quality, quantity or cost requirements.

Volatility of Share Price:

The market price of the Company's common shares is subject to volatility. General market conditions as well as differences between the Company's financial, scientific and clinical results, and the expectations of investors, as well as securities analysts can have a significant impact on the trading price of the Company's common shares.

Regulatory Approvals:

The Company is directly and indirectly engaged in the design, manufacture, sale and international marketing of therapeutic and medical laser equipment, as well as the research and development of light activated small molecules, all of which are subject to regulatory oversights, audits and controls by various national regulatory agencies (i.e.: FDA, Health Canada and CE) and authoritative quality standards bodies (i.e.: UL, CSA, ISO and TUV), which all possess strict quality certification procedures. The Company is in full compliance with all the governing regulatory and quality standards and approval requirements pertaining to the medical laser devices it currently designs, manufactures and markets and the small molecules it researches and develops. No assurance can be given that current regulations relating to regulatory approval will not change or become more stringent and product approvals may be withdrawn if compliance with regulatory standards is not maintained.

Early Stage of Product Development:

Given the early stage of the Company's product development, the Company can make no assurance that its research and development programs will result in regulatory approval or commercially viable products. To achieve profitable operations, the Company alone or with others, must successfully develop, gain regulatory approval and market its future products. To obtain regulatory approvals for its product candidates being developed and to achieve commercial success,

clinical studies must demonstrate that the product candidates are safe and tolerable for human use and that they demonstrate efficacy equal to or greater than standard of care.

Many product candidates never reach the stage of clinical testing and even than those that do have only a small chance of successfully completing clinical development and gaining regulatory approval. Product candidates may fail for a number of reasons, including, but not limited to: being unsafe for human use or due to the failure to provide therapeutic benefits equal to or better than the standard of treatment at the time of testing. Unsatisfactory results obtained from a particular study relating to a research and development program may cause the Company or its collaborators to abandon commitments to that program. Positive results of early preclinical research may not be indicative of the results that may be obtained in later stages of preclinical or clinical research. Similarly, positive results from early-stage clinical studies may not be indicative of favorable outcomes in later-stage clinical studies. The Company can make no assurance that any future studies, if undertaken, will yield favorable results.

Reliance on Third Parties:

The Company relies and will continue to rely on third parties to conduct a significant portion of its preclinical and clinical development activities. Preclinical activities include: in-vivo studies providing access to specific disease models, pharmacology and toxicology studies and assay development. Clinical development activities include: trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management. If there is any dispute or disruption in the Company's relationship with third parties, or if they are unable to provide quality services in a timely manner and at a feasible cost, the Company's active development programs may face delays. Further, if any of these third parties fails to perform as the Company expects or if their work fails to meet regulatory requirements, the Company's testing could be delayed, cancelled or rendered ineffective.

Clinical Study Risk:

Before obtaining marketing approval from regulatory authorities for the sale of the Company's product candidates, the Company must conduct preclinical studies in animals and extensive clinical studies in humans to demonstrate the safety, tolerability and efficacy of the product candidates. Clinical testing is expensive and difficult to design and implement, can take many years to complete and has uncertain outcomes. The outcome of preclinical experiments and early clinical studies may not predict the success of later clinical studies, and interim results of a clinical study do not necessarily predict final results. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical studies due to lack of efficacy or unacceptable safety profiles, notwithstanding promising results in earlier studies. The Company does not know whether the clinical studies it may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market any of the Company's product candidates in any jurisdiction. A product candidate may fail for safety, tolerability or efficacy reasons at any stage of the testing process. A major risk the Company faces is the possibility that none of the Company's product candidates under development will successfully gain market approval from Health Canada, the FDA or other regulatory authorities, resulting in the Company being unable to derive any commercial revenue from them after investing significant amounts of capital in multiple stages of preclinical and clinical testing.

From time to time, scientific studies or clinical studies on various aspects of biopharmaceutical products are conducted by academic researchers, competitors or others. The results of these studies, when published, may have a significant effect on the market for the biopharmaceutical product that is the subject of the study. The publication of negative results of scientific studies or clinical studies or adverse safety events related to the Company's product candidates, or the therapeutic areas in which the Company's product candidates compete, could adversely affect the Company's share price and the Company's ability to finance future development of its product candidates; hence, the Company's business and financial results could be materially and adversely affected.

Clinical Study Timing Delays:

The Company cannot predict whether any clinical studies will begin as planned, will need to be restructured, or will be completed on schedule, or at all. The Company's product development costs may increase significantly if the Company

experiences delays in clinical testing. Significant clinical study delays could shorten any periods during which the Company may have the exclusive right to commercialize its product candidates or allow the Company's competitors to bring products to market before the Company, which would impair the Company's ability to successfully commercialize its product candidates and may harm the Company's financial condition, results of operations and / or prospects. The commencement and completion of clinical studies for the Company's products may be delayed for a number of reasons, including delays related, but not limited, to:

- failure by regulatory authorities to grant permission to proceed or placing the clinical study on hold;
- patients failing to enroll or remain in the Company's studies at the rate the Company expects;
- suspension or termination of clinical studies by regulators for many reasons, including concerns about patient safety or tolerability
- any changes to the Company's manufacturing process that may be necessary or desired;
- delays or failure to obtain clinical supply from contract manufacturers of the Company's products necessary to conduct clinical studies;
- product candidates demonstrating a lack of safety, tolerability or efficacy during clinical studies;
- patients choosing an alternative treatment for the indications for which the Company is developing any of its product candidates or participating in competing clinical studies;
- patients failing to complete clinical studies due to dissatisfaction with the treatment, side effects or other reasons;
- reports of clinical testing on similar technologies and products raising safety, tolerability and/or efficacy concerns;
- competing clinical studies and scheduling conflicts with participating clinicians;
- clinical investigators not performing the Company's clinical studies on their anticipated schedule, dropping out of a study, or employing methods not consistent with the clinical study protocol, regulatory requirements or other third parties not performing data collection and analysis in a timely or accurate manner;
- failure of the Company's Contract Research Organizations, to satisfy their contractual duties or meet expected deadlines;
- inspections of clinical study sites by regulatory authorities, Review Ethics Boards ("**REB**"), or Institutional Review Boards / Review Ethics Boards ("**IRBs** / **REBs**") or ethics committees finding regulatory violations that require the Company to undertake corrective action, resulting in suspension or termination of one or more sites or the imposition of a clinical hold on the entire study;
- one or more IRBs or ethics committees rejecting, suspending or terminating the study at an investigational site, precluding enrollment of additional subjects, or withdrawing its approval of the study; or
- failure to reach agreement on acceptable terms with prospective clinical study sites.

The Company's product development costs may increase if the Company experiences delays in testing or approval or if the Company needs to perform more or larger clinical studies than planned. Additionally, changes in regulatory requirements and policies may occur, and the Company may need to amend study protocols to reflect these changes. Amendments may require the Company to resubmit its study protocols to regulatory authorities or IRBs or ethics committees for re-examination, which may impact the cost, timing or successful completion of that study. Delays or increased product development costs may have a material adverse effect on the Company's business, financial condition and prospects.

Patient Enrollment:

As the Company's product candidates advance from preclinical testing to clinical testing, and then through progressively larger and more complex clinical studies, the Company may need to enroll an increasing number of patients that meet the Company's eligibility criteria. There is significant competition for recruiting cancer patients in clinical studies, and the Company may be unable to enroll the patients it needs to complete clinical studies on a timely basis or at all. The factors that affect the Company's ability to enroll patients are largely uncontrollable and include, but are not limited to, the following:

- size and nature of the patient population
- eligibility, inclusion and exclusion criteria for the study
- design of the clinical study protocol
- competition with other companies for clinical sites or patients
- the perceived risks and benefits of the product candidate under study
- the patient referral practices of physicians
- the number, availability, location and accessibility of clinical study sites

Failure to Achieve Milestones:

From time to time, the Company may announce the timing of certain events it expects to occur, such as the anticipated timing of results from the Company's clinical studies or product sales. These statements are forward-looking and are based on the best estimates of management at the time relating to the occurrence of such events; however, the actual timing of such events may differ from what has been publicly disclosed. The timing of events such as initiation or completion of a clinical study, filing of an application to obtain regulatory approval or announcement of additional clinical studies for a product candidate or adoption / sales of the Company's products may ultimately vary from what is publicly disclosed. These variations in timing may occur as a result of different events, including the nature of the results obtained during a clinical study or during a research phase or any other event having the effect of delaying the publicly announced timeline. The Company undertakes no obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as otherwise required by law. Any variation in the timing of previously announced milestones could have a material adverse effect on the Company's business plan, financial condition or operating results and the trading price of common shares.

Currency Risk:

The Company's primary risks are exposure to foreign currency exchange risk. These risks arise from the Company's holdings of US and Canadian dollar denominated cash, accounts receivable and accounts payable. Changes arising from these risks could impact the Company's reported foreign exchange gains or losses.

Credit Risk:

Credit risk is the risk of financial loss to the Company, if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Company's accounts receivable and investment in leases. The amounts reported in the balance sheet are net of allowances for bad debts, estimated by the Company's management based on prior experience and their assessment of the current economic environment. The Company reviews its trade receivables and investments in leases accounts regularly and reduces amounts to their expected realizable values by adjusting the allowance for doubtful accounts as soon as the account is determined not to be fully collectible. The Company has adopted credit policies in an effort to minimize these risks.

Product Liability:

The Company has obtained product liability insurance which covers each occurrence up to $5 million with a cap of $10 million. A product liability claim could potentially be greater than this coverage. The Company's profitability would be adversely affected by any successful product liability claim in excess of its insurance coverage.

Clinical Trial Liability:

The Company has obtained clinical trial liability insurance coverage in the aggregate of $CAN 5 million. This coverage is limited, and a clinical trial liability claim could potentially be greater than this coverage. The Company's profitability would be adversely affected by any successful product liability claim in excess of its insurance coverage.

March 11th, 2025

Kristina Hachey, CPA
Chief Financial Officer