



RAKOVINA THERAPEUTICS INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED

DECEMBER 31, 2022

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

The following management's discussion and analysis ("MD&A") of Rakovina Therapeutics Inc. ("Rakovina" or the "Company") should be read in conjunction with the audited consolidated financial statements and accompanying notes for the year ended December 31, 2022 (the "financial statements"), which have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All dollar amounts are expressed in Canadian dollars unless otherwise noted.

This MD&A is dated April 28, 2023

FORWARD-LOOKING STATEMENTS

Certain statements and information in this MD&A contain forward-looking statements or forward-looking information under applicable Canadian securities legislation that may not be based on historical fact, including, without limitation, statements containing the words "believe", "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "predict", "project", "potential", "ongoing", "could", "would", "seek", "target" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words and similar expressions.

Forward-looking statements are necessarily based on estimates and assumptions made by us in light of our experience and perception of historical trends, current conditions and expected future developments, as well as factors that we believe are appropriate. Forward-looking statements in this MD&A include, but are not limited to, statements relating to:

- the initiation, timing, cost, progress and success of our research and development programs;
- our ability to safely dose, re-dose, formulate and develop drug candidates;
- our ability and our current and potential future partners' ability to advance product candidates into, and successfully complete, clinical trials;
- the expected therapeutic benefits, effectiveness and safety of our product candidates, including our belief that our approach may reduce the risk, time and cost of developing therapeutics by avoiding some of the uncertainty associated with certain research and pre-clinical stages of drug development;
- our ability to obtain funding for our operations, including funding for research and commercial activities;
- our ability to obtain marketing approval for any of our products and to achieve profitability;
- our ability to establish and maintain relationships with collaborators with acceptable development, regulatory and commercialization expertise and the benefits to be derived from such collaborative efforts;
- our ability to enter into agreements or partnerships with pharmaceutical or biotechnology companies that have sales and marketing capabilities, which will enable us to increase our returns from our product candidates or to further accelerate development of our product candidates;
- the manufacturing capacity of third-party manufacturers for our product candidates;
- the implementation of our business model and strategic plans;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our expectations regarding federal, provincial and foreign regulatory requirements;
- the timing of, and our ability and our collaborator's ability, and the costs of obtaining and maintaining, regulatory approvals in the United States, Canada and other jurisdictions for our product candidates;
- the rate and degree of market acceptance and clinical utility of our future products, if any;
- our expectations regarding market risk, including interest rate changes and foreign currency fluctuations;
- our ability to engage and retain the consultants or employees required to grow our business;
- the compensation that is expected to be paid to consultants or employees of the Company;
- our future financial performance and projected expenditures;
- developments relating to our competitors and our industry, including the success of competing therapies that are or become available;
- our expectations regarding the kt-2000 series, kt-3000 series and kt-4000 series candidates;
- our expectations regarding the size and growth of the cancer therapeutics and PARP-inhibitor markets; and estimates of our expenses, future revenue, capital requirements and our needs for additional financing

Such forward-looking statements reflect our current views with respect to future events, are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Rakovina as of the date of such statements, are inherently subject to significant medical, scientific, business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance, achievements, prospects or opportunities to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. In making the

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

forward-looking statements included in this MD&A, the Company has made various material assumptions, including, but not limited to: (i) obtaining positive results of clinical trials; (ii) obtaining regulatory approvals; (iii) assumptions regarding general business and economic conditions; (iv) assumptions regarding the cost and timing of each study; (v) that the Company's current positive relationships with third parties will be maintained; (vi) the availability of financing on reasonable terms; (vii) the Company's ability to attract and retain skilled consultants; (viii) assumptions regarding market competition; (ix) the products and technology offered by the Company's competitors and (x) the Company's ability to protect patents and proprietary rights.

In evaluating forward-looking statements, current and prospective shareholders should specifically consider various factors, including the risks outlined herein under the heading "*Risk Factors*". Should one or more of these risks or uncertainties, or a risk that is not currently known to us, materialize, or should assumptions underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this MD&A and we do not intend, and do not assume any obligation, to update these forward-looking statements except as required by applicable securities laws. Investors are cautioned that forward-looking statements are not guarantees of future performance and are inherently uncertain. Accordingly, investors are cautioned not to put undue reliance on forward-looking statements.

COVID-19 Update

In March 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic and the Company continues to evaluate the COVID-19 situation and monitor any impacts or any potential impacts to the business. Rakovina has implemented health and safety measures in accordance with health officials and guidance from local government authorities. While the pandemic has had a limited impact on the Company's operations to date, future research activities could be impacted as a result of the pandemic. As the COVID-19 health crisis continues, the Company will continue to rely on guidance and recommendations from local health authorities, Health Canada and the Centers for Disease Control and Prevention to update the Company's policies.

COMPANY OVERVIEW

Rakovina was incorporated under the *Business Corporations Act* (British Columbia) on May 6, 2019 under the name "Vincero Capital Corp." Prior to completing its qualifying transaction on March 25, 2021, the Company listed its shares on February 7, 2020 on the TSX Venture Exchange ("TSX-V") as a capital pool company ("CPC") (as defined in the TSX-V Policy 2.4 – *Capital Pool Companies*). As a CPC, the Company had no assets other than cash and did not carry on any operations.

On March 25, 2021, the Company announced that, pursuant to a business combination agreement dated August 28, 2020, as amended from time to time (the "Business Combination Agreement"), between the Company and NewGen Therapeutics, Inc. ("NewGen"), the Company had completed its qualifying transaction (the "Qualifying Transaction" or "QT"). The Qualifying Transaction was effected by way of a "three-cornered" amalgamation, in which: (a) a subsidiary of NewGen (the "Subco") was to amalgamate with a wholly-owned subsidiary of the Company ("Vincero Subco") to form an amalgamated company ("Amalco"); (b) all issued and outstanding shares of the Subco were exchanged for shares of the Company on a 1:1 basis; (c) all issued and outstanding warrants of the Subco were replaced by warrants of the Company on the same terms; and (d) Amalco became a wholly-owned subsidiary of the Company under the name "Rakovina Research Ltd.". The Qualifying Transaction was a reverse-takeover of the Company and upon completion thereof, the Company changed its name to "Rakovina Therapeutics Inc.". On April 1, 2021, following the completion of the Qualifying Transaction, the common shares of the Company (the "Common Shares") resumed trading on the TSX-V under the symbol "RKV". The Company's first financial year-end subsequent to the completion of the Qualifying Transaction was December 31, 2021. A Notice of Change in Corporate Structure was filed by the Company on March 31, 2021. For more information on the Qualifying Transaction, please refer to the filing statement of the Company dated March 17, 2021 available under the Company's profile on SEDAR at www.sedar.com.

Following completion of the Qualifying Transaction, the Company continued to conduct the biotechnology business previously conducted by Subco until March 23, 2021, when Subco and a subsidiary of the Company were amalgamated, with Amalco being the successor entity. The Company's head office and registered and records office is located at Suite 105, 1008 Beach Avenue, Vancouver, British Columbia, V6E1T7.

The Company, through its wholly owned subsidiary Rakovina Research Ltd., is principally engaged in the research and development of new cancer treatments based on three novel series of small-molecule DNA-damage response inhibitors ("DDR").

The DNA-damage response ("DDR") field has become an important area of research in the cancer field. DDR systems are responsible for detecting and repairing damage to the DNA within our cells. Such damage can occur naturally due

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

to errors during DNA replication or can be caused by exposure to mutagens such as ultraviolet light or toxins within the environment. The DDR systems within our cells are essential for cellular survival.

Certain types of cancer are known to take advantage of a defect in one or more of the DDR systems, which can allow a mutation to avoid detection and become entrenched in the cell leading to the formation of a tumor. When this occurs, the cancerous cell loses the function of a critical DDR system and becomes highly reliant on alternative DDR pathways or survival.

There are currently four "first-generation" FDA approved DDR-targeting drugs known as PARP inhibitors, which target an enzyme called poly ADP-ribose polymerase ("PARP"), which is a key component of a DDR pathway called base excision repair ("BER"). First-generation PARP inhibitors have become standard-of-care in the treatment of certain types of breast, ovarian and prostate cancer that harbor a mutation in the BRCA gene. BRCA mutations result in a defect in a cells homologous repair ("HR") system and put a person at an elevated risk of developing these cancers. Cells with HR-defects become heavily reliant on the BER system for survival, and thus are uniquely susceptible to treatment with a targeted therapy such as a PARP-inhibitor which blocks or suppresses BER.

While PARP-inhibitors have greatly improved treatment outcomes for patients whose tumors harbor a BRCA mutation, scientists and clinicians have also gained an understanding of their limitations. Such limitations include a limited ability to enter the brain to treat central nervous system ("CNS") metastases, the emergence of resistance to treatment and limited utility in cancers not harboring a HR-defect. Recent research in the field is focused on the development of next-generation DDRi to address these limitations and further improve treatment outcomes.

The Company is currently conducting lead-optimization and preclinical research in the development of next-generation DDRi at the University of British Columbia ("UBC") pursuant to a research collaboration agreement signed with the university (the "UBC Collaboration Agreement"). The UBC Collaboration Agreement provides us with access to a world class research infrastructure at the Jack Bell Research Center and Robert Ho Research Center in Vancouver, British Columbia including capabilities in molecular pathology, cell imaging, mass spectrometry, protein production and biophysics as well as a vivarium for the conduct of *in vivo* pharmacology and toxicology research. In addition, an associated clinical trial unit has capability and experience in running Phase 1 thru Phase 3 human clinical trials in the cancer field. The research is led by the Company's president, Mads Daugaard, who is also a professor at UBC. The Company's goal is to advance one or more drug candidates into human clinical trials and obtain marketing approval for new cancer therapeutics from Health Canada, the United States Food and Drug Administration and similar international regulatory agencies.

Lead-optimization research conducted in collaboration with UBC evaluates three novel series drug candidates (kt-2000, kt-3000, and kt-4000) against proprietary benchmark target product profiles established for each series of drug candidates. The aim of our research is to demonstrate potential superiority to first-generation DDRi to address significant unmet medical needs in the treatment of cancer.

In general, milestones in lead-optimization and drug discovery research include establishing superiority of kt-2000, kt-3000 and kt-4000 series compounds benchmarked against select FDA-approved anti-cancer therapeutics in relevant *in vitro* and *in vivo* models and confirming preclinical safety, biodistribution and pharmacokinetic profiles within acceptable parameters for medicines in the oncology field. The superiority of kt-2000, kt-3000 and kt-4000 series drug candidates may be established based upon improved efficacy in treatment-resistant tumors and tumors of the central nervous system, improved safety or improved pharmacokinetics and biodistribution compared to FDA-approved PARP inhibitors and other FDA-approved cancer therapeutics.

The primary goal of our lead optimization research program will be realized by selecting one or more lead clinical candidates from the kt-2000, kt-3000 and/or kt-4000 series by achieving the following milestones:

1. Identification of one or more lead drug candidates that meet the proprietary benchmark target product profile demonstrating potential superiority to first-generation DDRi to address significant unmet medical needs in the treatment of cancer; and
2. Demonstration of an acceptable safety, biodistribution and pharmacokinetic profile to support advancement of a lead drug candidate to pivotal toxicology studies and human clinical trials.

kt-2000 Series

We acquired worldwide rights, excluding the People's Republic of China, Hong Kong and Taiwan, to develop and commercialize the kt-2000 series through the QT. The kt-2000 series candidates are a patented class of next-generation oral targeted small molecule PARP inhibitors with established *in vitro* and *in vivo* proof of concept. Based

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

on research completed to date, the kt-2000 series lead candidates demonstrate potency comparable to FDA approved PARP-inhibitors and potent anti-cancer activity in preclinical animal models.

The kt-2000 lead candidates are being optimized around potential differentiating factors and competitive advantages, including PARP-1 selectivity and the ability to cross the blood brain barrier. Current FDA-approved PARP inhibitors have limited ability to treat cancer that metastasizes to the brain and exhibit toxicity that has been associated with PARP-2 inhibition. We believe a potent PARP-1 selective, brain-penetrating kt-2000 series drug candidate may provide a significant improvement over the current standard of care.

Research and development activity over the next 12 months will focus on investigation and optimization of multiple lead candidates from the kt-2000 series in preclinical models. Additional kt-2000 series analogues will also be synthesized and evaluated as potential lead candidates

kt-3000 Series

The kt-3000 series drug candidates are a patented, novel class of bi-functional small-molecule drug candidates designed to potently inhibit PARP and histone deacetylase (HDAC). Our pre-clinical research demonstrates that kt-3000 drug candidates have the potential to overcome acquired treatment resistance to FDA-approved PARP-inhibitors.

Published research demonstrates that inhibiting HDAC restores sensitivity to PARP inhibitors by preventing BRCA activity. The combination of a PARP-inhibitor and an HDAC inhibitor has shown promise in the laboratory but has been highly toxic in the clinical setting. By targeting dual mechanisms in a single molecule, we believe that kt-3000 series drug candidates have the potential to overcome clinical resistance that arises in response to PARP inhibitor treatment without the toxicity observed when combining two separate treatments.

We have presented preclinical data at peer reviewed scientific meetings demonstrating that select kt-3000 candidates retain anti-cancer activity despite the activation of resistance genes compared to an FDA-approved PARP-inhibitor, which loses potency upon re-establishment of BRCA activity. We recently published a manuscript demonstrating that a kt-3000 lead candidate achieves higher efficacy than treatment with single-agent PARP or HDAC inhibitors in pre-clinical models. These data indicate the dual activity of kt-3283 is 30- to 80-times more potent in Ewing sarcoma models than an FDA-approved PARP inhibitor, and 30- to 60-times more potent than an FDA-approved HDAC inhibitor. In an Ewing sarcoma metastasis model, kt-3283 prevented metastatic cancer growth in the lungs of mice inoculated with an aggressive Ewing sarcoma cell line.

We believe that our research provides proof-of-concept to support advancement of kt-3000 lead candidates based on their potential to address unmet medical needs in the treatment of Ewing sarcoma and potentially other cancers including leukemia, breast cancer, liver cancer, glioblastoma, prostate cancer and anaplastic thyroid cancer.

Select kt-3000 series drug candidates have been advanced to pilot toxicology and pharmacology studies. Lead candidates are being evaluated in in vivo models to support future regulatory filings to allow initiation of human clinical trials. Additional kt-3000 series analogues will also be synthesized and evaluated as potential lead candidates.

kt-4000 Series

The kt-4000 drug candidates are a patented rationally designed class of small-molecule drug candidates that have been engineered to cause targeted DNA-damage to a tumor cell's DNA while simultaneously inhibiting the tumor's DNA damage response. The kt-4000 series DDR inhibitors molecular structure includes a potent moiety which cause targeted breaks in a tumor cell's DNA strands while also inhibiting DNA-damage repair mechanisms leading to cancer cell death.

We have presented preclinical data at a peer-reviewed scientific meeting demonstrating that select kt-4000 drug candidates cause double-strand DNA breaks while inhibiting PARP-mediated repair resulting in cell-cycle arrest and cancer cell death in a manner distinct from first-generation PARPi.

We believe that kt-4000 series drug candidates have the potential to expand the general utility of DDR-inhibitors to treat tumors that have become or are inherently resistant to first-generation DDRi. During the next 12 months, suitable candidates will be further evaluated in preclinical models.

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

RECENT ACHIEVEMENTS & HIGHLIGHTS

- On April 19, 2023, we presented new preclinical *in vitro* and *in vivo* data demonstrating the potential of our kt-3000 series against treatment-resistant Ewing sarcoma, a rare childhood tumor, at the annual meeting of the American Association of Cancer Research (AACR).
- On March 30, 2023, we announced the engagement of Red Cloud Securities and Proactive Investors North America Inc as part of our evolving strategy to improve trading liquidity and increase awareness of our next-generation cancer therapy development pipeline.
- On March 23, 2023, we announced the extension of the expiry of 11,414,750 common share purchase warrants from March 24, 2023, to March 24, 2024. The exercise price of each warrant remains at \$0.40.
- On March 22, 2023, we announced the receipt of \$122,865 in non-dilutive funding from the National Research Council of Canada industrial Research Assistance Program.
- On March 17, 2023, we presented new preclinical data describing progress in our lead optimization activities for our novel kt-3000 series at the EACR-AACR Basic and Translational Research Conference
- On January 26, 2023, we announced that our president & chief scientific officer presented an address at the 6th Annual DDR-Inhibitors Summit describing research results supporting the activity of kt-3000 series drug candidate in pre-clinical models of Ewing sarcoma
- On November 14, 2022, we announced the publication of a manuscript entitled "A bi-functional PARP-HDAC inhibitor with activity in Ewing sarcoma". We believe data presented in the manuscript provides proof-of-concept to support advancement of kt-3000 lead candidates based on their potential to address unmet medical needs in the treatment of Ewing sarcoma and potentially other cancers including leukemia, breast cancer, liver cancer, glioblastoma, prostate cancer and anaplastic thyroid cancer.
- On October 28, 2022, we presented preclinical data related to our kt-3000 series at the 34th EORTC-NCI-AACR on Molecular Targets and Cancer Therapeutics in Barcelona, Spain.
- On June 23, 2022, we announced the results of our annual general meeting at which all four members of the Company's board of directors were re-elected by the shareholders of the company. Additional results from the meeting included the approval of the company's appointed auditor, approval of our amended and restated omnibus equity incentive plan and disinterested shareholders approved certain amendments to our existing escrow agreement dated June 5, 2019.
- On May 11, 2022, we presented preclinical data on our kt-3000 series lead candidate demonstrating novel bi-functional mechanism as a potential treatment for Ewing sarcoma and other soft-tissue tumors at the 2022 AACR Special Conference on Sarcomas.
- On April 11, 2022, we presented preclinical data supporting potential broad anti cancer activity of our novel kt-4000 series drug candidates at the American Association of Cancer Research (AACR) annual meeting.
- On January 27th, 2022, Rakovina Therapeutics' president and chief scientific officer participated as an expert panelist at the 5th Annual DDR, ATR and PARP Inhibitors Summit along side senior scientists from AstraZeneca and the National Brain Tumor Society to discuss insights and future directions for DDRi in the treatment of Cancer. The DDR, ATR and PARP Inhibitors Summit brought together industry and academic experts focused on advancing new and novel next-generation DNA-damage repair inhibitors.

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis

For the year ended December 31, 2022

SELECTED FINANCIAL INFORMATION

The consolidated statements of net loss and comprehensive loss data for the periods presented and the consolidated statements of financial position data as of the dates presented are derived from the financial statements. The selected historical financial data below should be read in conjunction with the financial statements and related notes and the "Results of Operations" section appearing elsewhere in this report.

	As at December 31, 2022 \$	As at December 31, 2021 \$		
Consolidated statements of financial position data:				
Cash and cash equivalents	896,831	2,811,541		
Working capital	962,553	2,956,994		
Intangible assets	5,051,160	5,587,269		
Total assets	6,120,761	8,658,242		
Total liabilities	107,048	113,979		
Deficit	(8,312,386)	(5,521,152)		
Total equity	6,013,713	8,544,263		
	For the three months ended December 31, 2022 \$	For the three months ended December 31, 2021 \$	For the year ended December 31, 2022 \$	For the year ended December 31, 2021 \$
Consolidated statements of net loss and comprehensive loss data:				
Expenses				
Research and development	497,739	473,799	1,949,201	1,502,439
General and administrative	155,120	277,907	868,278	971,891
Listing costs and transaction fees	-	-	-	3,051,607
Total expenses	652,859	751,706	2,817,479	5,525,937
Other expense (income)				
Finance income	(7,193)	(2,836)	(28,275)	(8,539)
Foreign exchange loss	1,760	2,483	2,030	3,741
Total other expense (income)	(5,433)	(353)	(26,245)	(4,798)
Net loss and comprehensive loss	(647,426)	(751,353)	(2,791,234)	(5,521,139)
Basic and diluted loss per share	(0.01)	(0.01)	(0.04)	(0.10)
Weighted average shares outstanding	69,829,500	69,808,000	69,828,734	53,622,734

RESULTS OF OPERATIONS**Research and development expenses**

	For the three months ended December 31, 2022 \$	For the three months ended December 31, 2021 \$	For the year ended December 31, 2022 \$	For the year ended December 31, 2021 \$
Contract research (UBC Collaboration Agreement)	152,250	152,250	609,000	456,750
Amortization	135,129	135,129	536,109	412,731
Consulting	108,889	90,291	358,084	288,713
Chemistry and manufacturing	52,762	-	183,516	-
Share-based payments	29,331	56,955	175,565	236,875
Patent and legal fees	19,378	39,174	86,927	107,370
	497,739	473,799	1,949,201	1,502,439

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis

For the year ended December 31, 2022

Research and development expenses of \$497,739 and \$1,924,201 were incurred during the three and twelve months ended December 31, 2022, compared with \$473,799 and \$1,502,439 incurred in the three and twelve months ended December 31, 2021.

The net increase in R&D expenses during the three months ended December 31, 2022 relative to the three months ended December 31, 2021 is primarily due to the following:

- An Increase in consulting expense from \$90,291 for the three months ended December 31, 2021 to \$108,889 for the three months ended December 31, 2022. The Increase is primarily due to the receipt of \$7,722 in IRAP funding during the three months ended December 31, 2021 which is netted against consulting expense (\$nil funding received during the three months ended December 31, 2022) and expenses related to the attendance at medical conferences of \$8,078 during the three months ended December 31, 2022 (\$nil during the prior period).
- An increase in chemistry and manufacturing from \$nil for the three months ended December 31, 2021 to \$52,762 for the three months ended December 31, 2022. The increase is related to medicinal chemistry consulting and manufacturing costs related to lead optimization activities conducted by the company during the quarter.
- A decrease in Share-based payment expense from \$56,955 for the three months ended December 31, 2021 to \$29,331 for the three months ended December 31, 2022. The decrease is due to the amortization of the fair value of stock options granted to officers, directors and advisors that are directly involved with the research and development activities of the Company which decreases over time as options vest.
- A decrease in patent and legal fees from \$39,174 for the three months ended December 31, 2021 to \$19,378 for the three months ended December 31, 2022. The decrease is related to the timing of patent filings and related work which does not occur evenly throughout the year.

The increase in R&D expenses during the twelve months ended December 31, 2022 relative to the twelve months ended December 31, 2021 is primarily due to the following:

- An increase in contract research and consulting expense from \$456,750 to \$609,000. The Company's operations commenced in April 2021 resulting in fewer months of operations during the comparable period.
- An increase in chemistry and manufacturing from \$nil for the twelve months ended December 31, 2021 to \$183,516 for the twelve months ended December 31, 2022. The increase is related to medicinal chemistry consulting and manufacturing costs related to lead optimization activities conducted by the company in the current period.
- A decrease in patent and legal fees from \$107,370 for the three months ended December 31, 2021 to \$86,927 for the three months ended December 31, 2022. The decrease is related to the timing of patent filings and related work which does not occur evenly throughout the year.

General and administrative expenses

	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the year ended December 31, 2022	For the three months ended December 31, 2021
	\$	\$	\$	\$
Legal and professional	11,608	51,388	261,995	293,521
Corporate communications	23,390	101,322	114,214	247,957
Share-based payments	12,899	30,329	82,969	132,819
Consulting	39,000	39,000	156,020	120,000
Director fees	25,821	34,124	120,920	116,690
Rent	10,500	10,000	38,500	30,000
Other expenses	31,902	11,744	93,660	30,904
	155,120	277,907	868,278	971,891

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis

For the year ended December 31, 2022

General and administrative expenses of \$155,120 and \$868,278 were incurred during the three and twelve months ended December 31, 2022, compared with \$277,907 and \$971,891 incurred in the three and twelve months ended December 31, 2021.

The net decrease general and administrative expenses during the three months ended December 31, 2022 relative to the three months ended December 31, 2021 is primarily due to the following:

- A decrease in Legal and professional fees from \$51,388 for the three months ended December 31, 2021 to \$11,608 for the three months ended December 31 2022. The decrease is due to non-recurring legal costs incurred during 2021 related to the completion of the Company's base shelf prospectus.
- A decrease in corporate communications expense from \$101,322 for the three months ended December 31, 2021 to \$23,390 for the three months ended December 31 2022. The decrease is due to the expiry of the Company's 12-month contract with a marketing and communications firm during the second quarter of 2022, one-time contract fees paid to a communications firm during the fourth quarter of 2021 and one-time exchange fees associated with the filing of the Company's base shelf prospectus during the comparable period.
- An increase in other expenses from \$11,744 for the three months ended December 31, 2021 to \$31,902 for the three months ended December 31 2022. The increase is primarily related to travel and conference fees as the Company was more active at industry events and investor meetings and conferences due to the relaxation of COVID related restrictions that were in place during the comparable period which restricted travel and lead to the postponement and/or cancelation of industry events.

The net decrease in general and administrative expenses during the year ended December 30, 2022 relative to the year ended December 31, 2021 is primarily due to the following:

- A decrease in corporate communications expense from \$247,957 for year ended December 31, 2021 to \$114,214 for the year ended December 31 2022. The decrease is primarily due to the expiry of the Company's 12-month contract with a marketing and communications firm during the second quarter of 2022 and the fourth quarter variance noted above.
- A decrease in share-based payment expense from \$132,819 for year ended December 31, 2021 to \$82,969 for the year ended December 31, 2021. The decrease is due to the amortization of the fair value of stock options granted to officers, directors and advisors that are not directly involved with the research and development activities of the Company which decreases over time as options vest.
- An increase in other expenses from \$30,904 for the year ended December 31, 2021 to \$93,660 for the year ended December 31 2022. The increase is primarily related to travel and conference fees as the Company was more active at industry events and investor meetings and conferences due to the relaxation of COVID related restrictions that were in place during the comparable period which restricted travel and lead to the postponement and/or cancelation of industry events.
- The Company's operations commenced in April 2021 resulting in fewer months of operations during the comparable period.

Listing costs and transaction fees

The company recorded total listing costs of nil and \$3,051,607 for the three and twelve months ended December 31, 2021, respectively, related to the QT transaction which closed on March 25, 2021. Total listing costs were calculated as follows:

Consideration comprised of non-cash consideration of:	
Fair value of SubCo shares (16,728,500 shares at \$0.20 per share)	\$ 3,345,700
Fair value of agent options assumed	30,304
Total consideration paid	3,376,004
Consideration paid	3,376,004
Less: net assets of Vincero (cash)	(800,000)
Direct listing costs	2,576,004
Transaction costs related to the QT	475,603
Total listing costs and transaction fees	3,051,607

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis

For the year ended December 31, 2022

Transaction costs of \$475,603 relating to professional and consulting fees incurred in connection with the QT were expensed during the twelve months ended December 31, 2021.

SUMMARY OF QUARTERLY RESULTS

	Dec 31, 2022 \$	Sep 30, 2022 \$	Jun 30, 2022 \$	Mar 31, 2022 \$	Dec 31, 2021 \$	Sep 30, 2021 \$	Jun 30, 2021 \$	Mar 31, 2021 \$
Net Loss	(647,426)	(715,880)	(715,975)	(711,953)	(751,353)	(737,352)	(835,062)	(3,197,372)
Basic and diluted loss per share	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.69)

During the three months ended December 31, 2022, the Company reported a net loss of \$647,426 which is consistent with the prior six quarters and is primarily attributable to research and development expenses of \$497,739 and general and administrative expenses of \$155,120.

LIQUIDITY AND CAPITAL RESOURCES**Liquidity and Capital Resources**

The Company's capital currently consists of equity and working capital. Its principal source of cash is from the issuance of common shares and warrants. The Company's capital management objectives are to safeguard its ability to continue as a going concern and to have sufficient capital to be able to further its research and development activities.

The Company does not have any externally imposed capital requirements to which it is subject. The Company manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Company may attempt to issue new shares.

The Company's capital needs are for funds to support its scientific research and development activities, including staffing, lead compound optimization, administrative costs and for working capital. The Company expects that its existing cash and cash equivalents as of December 31, 2022, in conjunction with approximately \$1,500,000 in anticipated proceeds from a convertible debenture offering expected to close during the second quarter of 2023, will enable it to fund operating requirements for at least the next 12 months. The process of drug development can be costly and the timing and outcomes of research related activities is uncertain. The assumptions upon which we have based our estimates are routinely evaluated and may be subject to change. The actual amount of our expenditures will vary depending upon a number of factors including but not limited to the design, timing and duration of lead optimization studies, the progress of our research and development programs, and the level of financial resources available.

Cash Flows

The following table provides information regarding our cash flows:

	For the year ended December 31, 2022 \$	For the year ended December 31, 2021 \$
Cash used in operating activities	(1,916,860)	(2,308,183)
Cash provided by financing activities	2,150	4,319,717
Cash provided by investing activities	-	800,000
	1,914,710	2,811,534

Cash flows from operating activities

Net cash used in operating activities was \$1,916,860 during the twelve months ended December 31, 2022. Net cash used in operating activities for the twelve months ended December 31, 2022 consisted of a net loss of \$2,791,234 plus non-cash items of \$794,643 and an increase of non-cash working capital of \$79,731. Non-cash items were related to amortization of \$536,109 and share-based payments of \$258,534. The Company is currently in the pre-clinical stage of research and development and does not generate revenue from operations. The company expects to have negative cash flow from operating activities.

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

Total cash operating expenses related to research and development and general and administrative expenses were \$2,022,826 and \$475,500 for the three and twelve months ended December 31, 2022, respectively.

Cash flows from financing activities

Cash provided from financing activities of \$2,150 during the twelve months ended December 31, 2022 was due to the exercise of agent options.

Cash provided from financing activities of \$4,319,717 during the twelve months ended December 31, 2021 was due to the issuance of common shares pursuant to the Financing for gross proceeds of \$4,565,900 less share issuance costs of \$271,183 and the exercise of 250,000 agent options for proceeds of \$25,000.

Cash flows from investing activities

Cash provided from investing activities of \$800,000 during the twelve months ended December 31, 2021 was due to the cash received from Vincero pursuant to the amalgamation.

Contractual Obligations

Pursuant to the UBC Collaboration Agreement the Company has committed to payments as follows:

	\$
March 31, 2023	217,000
December 31, 2023	217,000
	<u>434,000</u>

A payment of \$304,500 was made to UBC on September 30, 2022 and will be used to fund lead optimization activities for the Company's research and development programs at UBC between October 1, 2022 and March 31, 2023. \$152,250 of this payment is recorded as a prepaid expense at December 31, 2022 and will be amortized on a straight-line basis into net loss and comprehensive loss between January 1, 2023 and March 31, 2023.

OFF-BALANCE SHEET ARRANGEMENTS

As of the date of this MD&A, the Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of the Company, including, and without limitation to, such considerations as liquidity and capital resources that have not previously been disclosed.

FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The Company classifies its financial assets into the following specified categories: amortized cost, fair value through other comprehensive income ("FVTOCI"); and fair value through profit or loss ("FVTPL"). Financial liabilities are classified as FVTPL or classified as loans and borrowings measured at amortized cost. Classification depends on the purpose for which the financial assets and liabilities were acquired or incurred. Management determines the classification of its financial instruments at initial recognition.

Financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and due to related parties.

Fair values

The Company has classified its financial instrument fair values based on the required three level hierarchies:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included in Level 1, but that are observable for the asset or liability, either directly or indirectly; and
- Level 3: inputs for the asset or liability that are not based on observable market data.

The fair value hierarchy level at which a fair value measurement is categorized is determined based on the lowest level input that is significant to the fair value measurement in its entirety. The Company records cash and cash equivalents at fair value using level 1 inputs. There were no transfers from levels 1, 2, and 3 during the year ended December 31, 2022.

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

The fair values of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and due from related parties approximate the carrying values due to the short-term nature of these instruments.

Financial risk factors

The Company's risk exposures and the impact on the Company's financial instruments are summarized below:

Credit risk

Credit risk is the risk of loss associated with the counterparty's inability to fulfill its payment obligations. Financial instruments that potentially subject the Company to concentrations of credit risks consist of cash and cash equivalents and amounts receivable. The Company's cash and cash equivalents consists of funds held in a reputable Canadian bank. The amounts receivable is related to GST receivable from the government of Canada and accrued interest from a reputable Canadian bank. Management actively reviews the risk of the financial institutions and/or the counterparty to underlying financial instruments failing to meet its obligations and adjusts if and when any undue risk is identified. At December 31, 2022 and at the date of this MD&A, the Company does not believe it is currently exposed to any significant credit risk.

Interest rate risk

Interest rate risk is the risk that changes in market interest rates may have an effect on the cash flows associated with some financial instruments, known as interest rate cash flow risk, or on the fair value of other financial instruments, known as interest rate price risk. The Company is not exposed to any significant interest rate risk.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. Liquidity risk is managed by maintaining adequate cash reserves and by closely monitoring forecast and actual cash flows. The Company currently settles its financial obligations out of cash. The ability to do this relies on the Company's ability to raise equity financing in a timely manner and by maintaining sufficient cash over anticipated needs.

Foreign currency risk

The Company is exposed to foreign currency risk on fluctuations in foreign exchange rates for any cash, amounts receivable, accounts payable and accrued liabilities that are denominated in foreign currencies. The Company's foreign currency risk is primarily related to expenses denominated in United States dollars.

There has been no significant change in the credit risk and concentrations, interest rate risk, liquidity risk or foreign currency risk since December 31, 2022.

DIVIDEND POLICY

Since its incorporation, the Company has not paid any dividend on its common shares. The Company's current policy is to retain future earnings to finance its growth. Any future determination to pay dividends is at the discretion of the Company's Board of Directors and will depend on the Company's financial condition, results of operations, capital requirements and other such factors as the Board of Directors of the Company may deem relevant.

RELATED PARTY TRANSACTIONS

The key management personnel of the Company are the Directors, Executive Chairman, President and Chief Scientific Officer, Chief Operating Officer, and Chief Financial Officer. Amounts due to related parties, including amounts due to key management personnel, at the period-end are unsecured, interest free and settlement generally occurs in cash. There have been no guarantees provided or received for any related party receivables or payables.

As at December 31, 2022, the Company had amounts due to related parties of \$79,309 (\$74,315 at December 31, 2021) comprised of board fees, management compensation and reimbursable expenses.

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

Compensation to key management personnel for the reporting period is as follows:

	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the year ended December 31, 2022	For the year ended December 31, 2021
	\$	\$	\$	\$
Compensation and short-term benefits	125,430	125,021	511,626	399,339
Board fees	25,821	34,124	120,920	116,690
Share-based payments	34,952	87,284	224,189	369,694
	186,203	246,429	856,735	885,723

For the twelve months ended December 31, 2022, the Company incurred rent expense of \$38,500 (2021 - \$30,000) to Al De Lucrezia, a Director of the Company, pursuant to a short-term lease agreement for office space.

The Company entered into a consulting agreement with Jeffrey Bacha, the Executive Chairman of the Company. Pursuant to this consulting agreement, Mr. Bacha is compensated at a rate of \$10,000 per month. During the twelve months ended December 31, 2022, Mr. Bacha received \$120,000 (2021 - \$100,000) in fees for management services. As of December 31, 2022, the Company has included in its accounts payable and accrued liabilities \$13,621 (December 31, 2021 - \$14,396) due to Mr. Bacha related to management services (\$10,500) and reimbursable expenses (\$3,121).

The Company entered into a consulting agreement with Daugaard Consulting and Mads Daugaard, the President and Chief Scientific Officer of the Company. Pursuant to this consulting agreement, Mr. Daugaard is compensated at a rate of \$11,970 per month. During the twelve months ended December 31, 2022, Mr. Daugaard received \$143,640 (2021 - \$119,700) in fees for management services. As of December 31, 2022, the Company has included in its accounts payable and accrued liabilities \$16,609 (December 31, 2021 - \$12,569) due to Mr. Daugaard related to management services (\$12,569) and reimbursable expenses (\$4,040).

The Company entered into a consulting agreement with Langlands & Associates Consulting Inc. and John Langlands, the Chief Operating Officer of the Company. Pursuant to this consulting agreement, Mr. Langlands is compensated at a rate of \$10,666 per month. During the twelve months ended December 31, 2021, Mr. Langlands received management fees of \$127,417 (2021 - \$95,436) in fees for management services. As of December 31, 2022, the Company has included in its accounts payable and accrued liabilities \$11,665 (December 31, 2021 - \$11,199) due to Mr. Langlands related to management services (\$11,200) and reimbursable expenses (\$445).

The Company entered into a consulting agreement with Tandem Innovation Group ("Tandem") and David Hyman, the Chief Financial Officer ("CFO") of the Company. Pursuant to this consulting agreement, Mr. Hyman is compensated at a rate of \$10,000 per month. During the twelve months ended December 31, 2021, Tandem charged fees of \$120,000 (2021 - \$90,000) for CFO services. As of December 31, 2021, the Company has included in its accounts payable and accrued liabilities \$10,500 (December 31, 2021 - \$10,500) due to Tandem related to management services and \$670 to Mr. Hyman for reimbursable expenses.

The Company pays its independent directors a fixed quarterly fee of \$8,750 plus \$1,875 for the audit committee chair and \$1,000 for audit committee members. As of December 31, 2022 the Company has included in its accounts payable \$8,137 for Al De Lucrezia, \$8,750 for Dennis Brown, and \$8,795 for Michael Liggett related to Director fees (December 31, 2021 \$25,651 for all Directors).

All related party transactions, whether monetary or non-monetary, are conducted in the normal course of business and are measured at fair value, which is the consideration established and agreed to by the related parties.

OUTSTANDING SECURITIES

As at the date of this report the company has the following securities outstanding:

	#
Common shares	69,829,500
Warrants	11,414,750
Stock Options	5,780,000
Total	87,024,250

RAKOVINA THERAPEUTICS INC.

Management's Discussion and Analysis
For the year ended December 31, 2022

On May 25, 2022, the Company granted 150,000 incentive stock options to a consultant pursuant to the LTI plan. The stock options are exercisable at \$0.15 per share for a period of five years and vest over three years in equal 1/6 installments every six months.

Escrow

As at the date of this report 9,225,000 common shares are held in escrow and will be released based on the Company's escrow agreements as follows:

	#
October 1, 2023	4,612,500
April 1, 2024	4,612,500
	9,225,000

The Company received exchange and shareholder approval to amend the CPC Escrow Agreement with the founders of Vincero which resulted in the reduction in the length of the term of the founder's escrow from 36 to 18 months. As a result of the amended escrow agreement, the final tranche of escrowed Vincero shares were released on October 1, 2022.

INCOME TAXES

The Company has the following income tax pools:

Type	December 31, 2022 \$	Estimated Expiry
Non-capital loss carry forward	3,594,000	2040 to 2042
Intangible assets	1,658,000	No expiry
Share issuance costs	203,000	2043 to 2046

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Please refer to the audited financial statements for the year ended December 31, 2022.

RISKS FACTORS

Investing in our securities involves a high degree of risk. Before deciding to invest in our securities, you should carefully consider the risks described in the Company's AIF, together with other information included in or incorporated by reference into this MD&A and filed on SEDAR at www.sedar.com. If any of the following risks materialize, the business, financial condition, results of operation and future prospects of the Company will likely be materially and adversely affected. This could cause actual future events to differ materially from those described in forward-looking statements and may cause the trading price of our securities to decline.