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# TRANSFORMING LIVES FOR THOSE BATTLING CANCER WITH THE SPEED & PRECISION OF AI

# Forward-Looking Statements

This presentation includes forward-looking statements regarding the Company and its respective business, which may include, but is not limited to, statements with respect to the terms of the private placement, the closing of the private placement, the investors who will participate in the private placement, the proposed business plan of the Company; the Company's commitment to advancing new cancer therapies; the ability of the Company to extract value from the Deep Docking AI platform; the Company's ability to execute on its business plans while maintaining high standards of research; the ability of Pharma Inventor Inc. to accurately provide medicinal chemistry support; the projected timeline and effectiveness of the Company's strategy to utilize the Deep Docking AI platform; and the Company's ability to generate shareholder value. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "is expected", "expects", "scheduled", "intends", "contemplates", "anticipates", "believes", "proposes" or variations (including negative variations) of such words and phrases, or state that certain actions, events, or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Such statements are based on the current expectations of the management of the Company.

The forward-looking events and circumstances discussed in this release may not occur by certain specified dates or at all and could differ materially as a result of known and unknown risk factors and uncertainties affecting the Company, including risks regarding the medical device industry, economic factors, regulatory factors, the equity markets generally and risks associated with growth and competition.

Although the Company has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events, or results to differ from those anticipated, estimated or intended. No forward-looking statement can be guaranteed. Except as required by applicable securities laws, forward-looking statements speak only as of the date on which they are made and the Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise. The reader is referred to the Company's most recent filings on SEDAR for a more complete discussion of all applicable risk factors and their potential effects, copies of which may be accessed through the Company's profile page at [www.sedar.com](http://www.sedar.com).



## USING AI TO BATTLE CANCER

Our mission has always been about improving the lives of those battling cancer. Now, with a robust Artificial Intelligence (AI) platform on our side, we are moving into a new era of research speed and accuracy.

Using our Deep Docking™ platform powered by advanced AI algorithms, we can quickly analyze billions of molecular structures to evaluate their potential as targeted cancer drugs. We then validate their activity using our established R&D infrastructure. This approach is innovative to developing new therapies that target DNA-damage response-related vulnerabilities that are common in many types of cancer.

At Rakovina Therapeutics, we're wholly committed to pushing the boundaries of discovery and research using the latest technological advances to save lives worldwide.



**10%**

Increase in risk of death for every 1-month delay in cancer treatment.<sup>1</sup>



## COMPANY SNAPSHOT



Founded in 2021 to focus on the development of **new DNA-damage (DDR) response-based therapies** for the treatment of cancer



Exclusive access to **Deep Docking™ AI Platform** to rapidly screen billions of drug candidates against DNA-damage response targets



Leveraging robust lead-optimization infrastructure already established in **collaboration with the University of British Columbia**



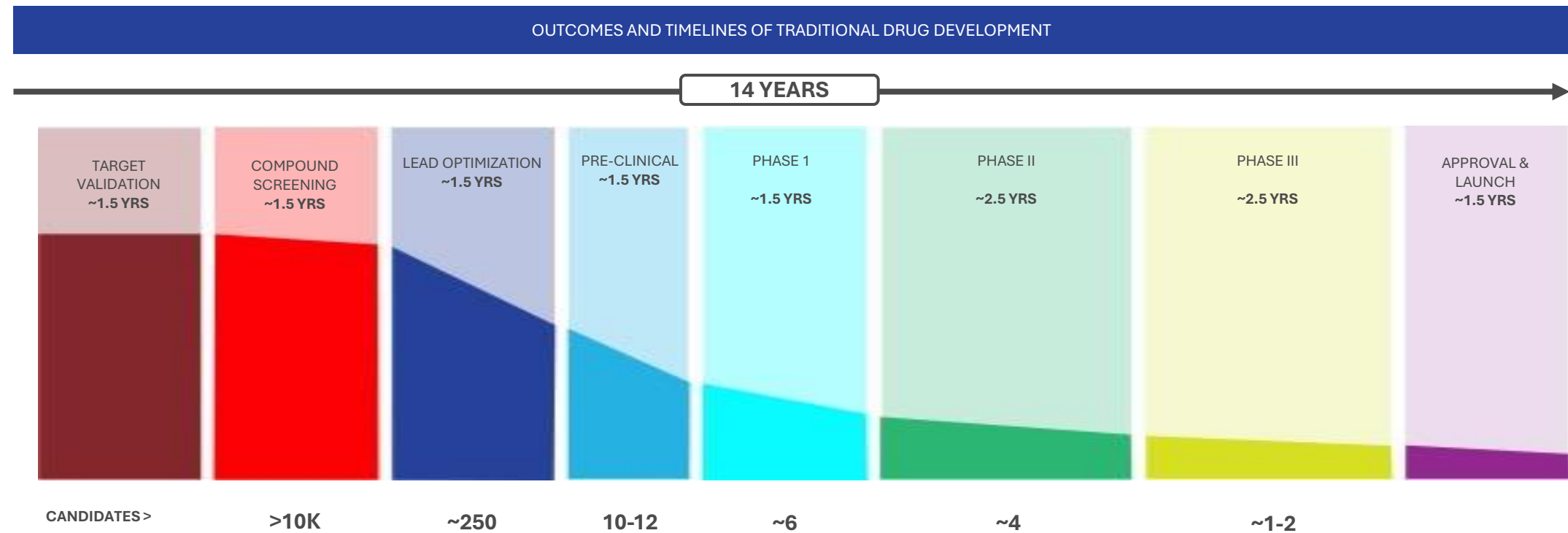
Experienced leadership with a track-record of success



# TRADITIONAL DRUG DEVELOPMENT TECHNIQUES ARE COSTING LIVES

Patients can not wait long timelines over years to get the treatment they need today and tomorrow.

## LONG TIMELINES

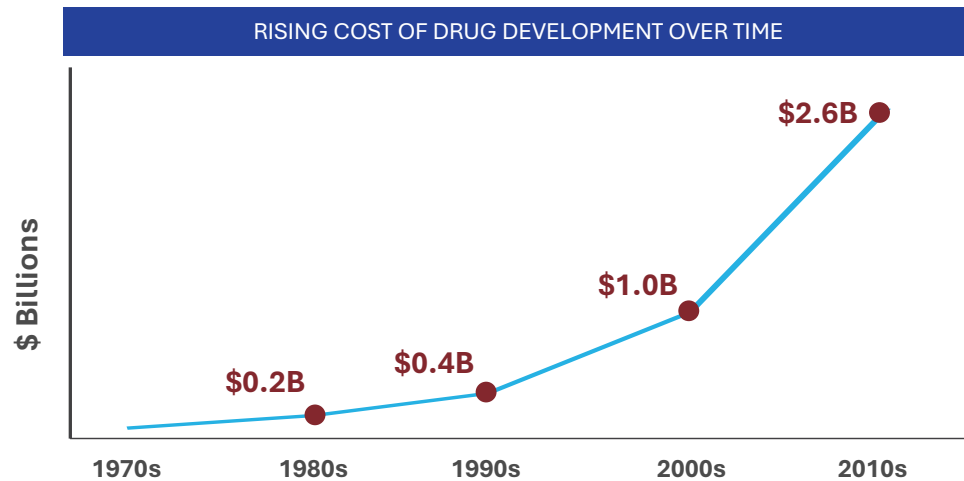


# TRADITIONAL DRUG DEVELOPMENT LIMITS DRUG DISCOVERY

Significant obstacles challenge the advancement of life-changing innovations in new drug therapeutics.

## HIGH COSTS

The high costs required to establish and maintain screening platforms with large libraries of compounds often hamper their use for drug discovery.<sup>1</sup>



## HIGH RISKS

Drug candidate failure rate can be very high and costly due to safety or efficacy issues identified along the development lifecycle

## MISSED OPPORTUNITIES

The capacity to analyze drug candidates can be limited to a relatively small and sub-optimal sample size

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# A NEW ERA WITH DEEP DOCKING™ AI COLLABORATION

- Exclusive access to Deep Docking AI platform for DNA-damage response targets
- Rakovina Therapeutics owns rights to all novel drug candidates generated through the collaboration
- Program overseen by Rakovina scientific advisory board member, Dr. Artem Cherkasov

## HOW IT WORKS

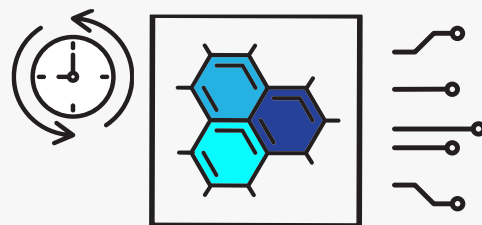
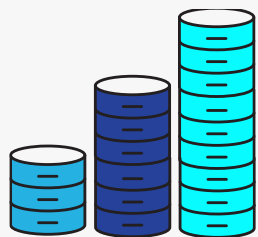
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Deep Docking is a computational modeling technique to rapidly evaluate billions of compounds to identify novel therapeutic drug candidates.

There is a relationship between the biological activity of a molecule and its chemical structure. This relationship, known as structure-activity relationship (SAR), is used for predicting the biological effect of candidate drug molecules from compounds like never before using the power of the Deep Docking™ AI Platform.



# THE DEEP DOCKING™ AI PLATFORM REVOLUTIONIZES DRUG DEVELOPMENT



## HIGH YIELD DRUG DISCOVERY

Deep learning (DL) method has superior performance compared to traditional machine learning techniques.

Deep Docking™ yields a **6,000-fold enrichment**<sup>1</sup> in candidate drug molecules.

## SHORTENED TIMELINES & REDUCED COST

AI algorithms screen billions of drug candidates in months versus thousands of drug candidates over years.

Deep Docking™ enables up to a **100-fold acceleration**<sup>1</sup> of virtual screening compared to other AI approaches for structure-activity relationships.

## MAXIMIZING SUCCESS

Deep Docking™ is optimized to search and evaluate for drug-like properties in the molecules it screens and to predict safety and efficacy with greater precision in its calculations and computations.





# DEEP DOCKING™ AI PLATFORM: A REAL-WORLD PARADIGM SHIFT

## Deep Docking AI Real-World Impact on COVID 19

**1.4B**

Drug Candidates  
Screened



“The team behind Deep Docking partnered with Nvidia, Dell and UBC Advanced Research Computing (ARC) to identify potential COVID-19 therapeutics from large libraries. Even with a supercomputer, it would take years to screen 40 billion compounds with traditional methods; with Deep Docking™ we did it in 20 days. It is a paradigm shift.”<sup>1</sup>

3.5 Weeks

11 Months

**JANUARY 25**

COVID 19 first reported in Canada

**FEBRUARY 19**

1,000 most promising structures published online by UBC

**MARCH 11**

WHO declares global pandemic

**DECEMBER 22**

PAXLOVID granted emergency use authorization

## DNA-DAMAGE RESPONSE (DDR)

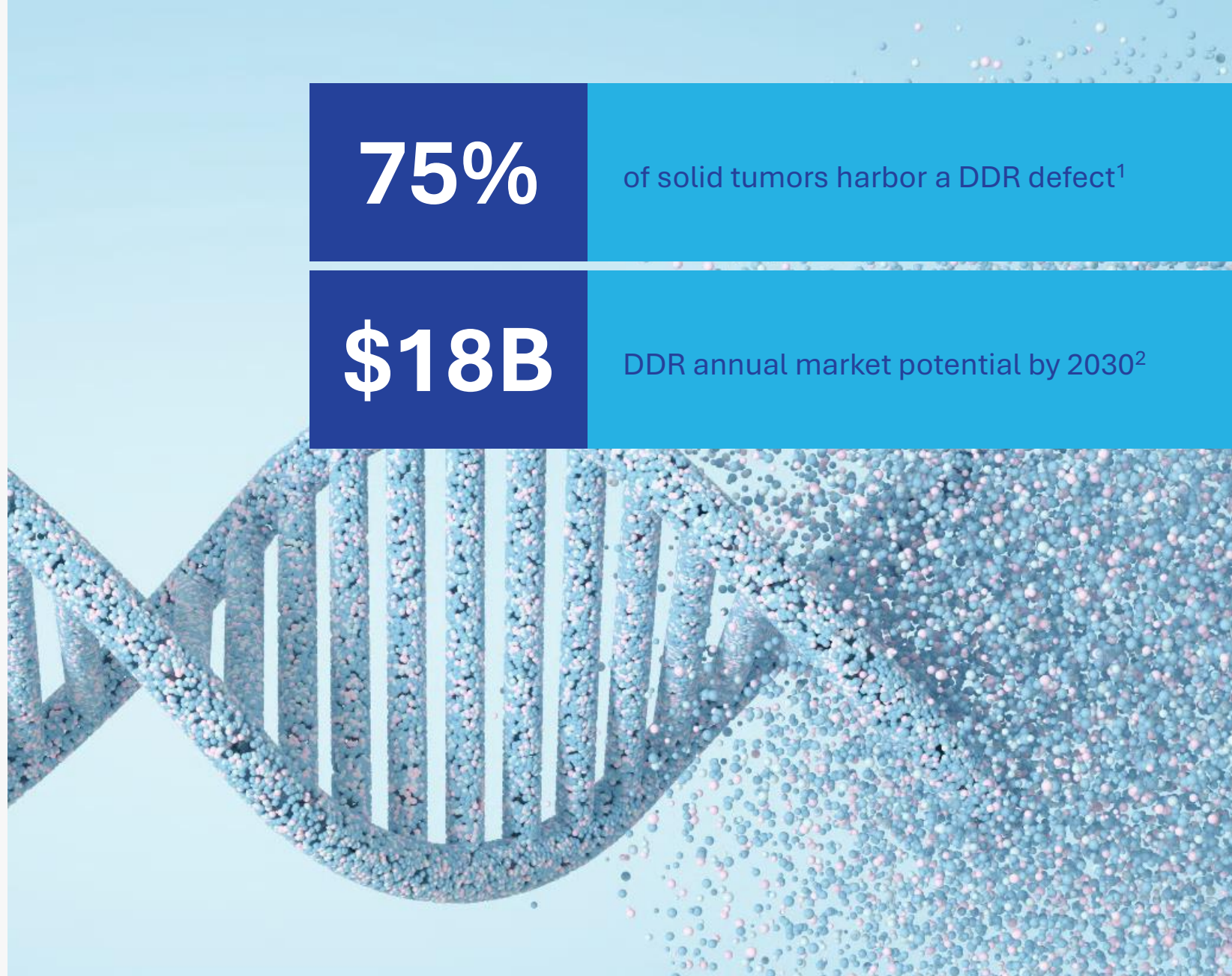
- DDRs are naturally occurring mechanisms that detect and repair DNA damage within our cells
- Many cancers harbor a defect in these natural repair mechanisms allowing mutations to accumulate and grow into life-threatening cancer

**75%**

of solid tumors harbor a DDR defect<sup>1</sup>

**\$18B**

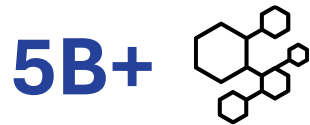
DDR annual market potential by 2030<sup>2</sup>



# COMBINING THE DEEP DOCKING™ AI PLATFORM WITH RAKOVINA CAPABILITIES FOR RAPID DDR DRUG DEVELOPMENT

COMPOUND SCREENING & LEAD OPTIMIZATION PHASE  
only 3-4 months from 3 years

## COMPOUND SCREENING

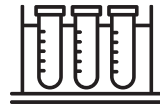


### ULTRA LARGE DATASETS FOR DRUG SCREENING

Ultra large database of more than **5 billion** drug candidate molecules is screened with Deep Docking™ for each cancer type being targeted.

Rakovina has readily available SAR data.

## DRUG VALIDATION LAB



### INTEGRATED PLATFORM FOR DDR DRUG VALIDATION

Rakovina Therapeutics's expertise and established in-house laboratory infrastructure established in partnership with UBC is used to validate compounds for advancement to human clinical trials and pharmaceutical partnerships.

The level of integration between AI computations and the wet lab operation sets Rakovina apart from peers.

## QUALIFIED CLINICAL LEADS



### ADVANCING DDR DRUG CANDIDATES

Qualified clinical leads are advanced to human trials through potential partnerships with pharma companies.



**Advancing the goal to provide cancer treatment sooner through accelerated discovery of new drug therapeutics**



# RAKOVINA THERAPEUTICS' DRUG DEVELOPMENT PORTFOLIO

Multiple high-value targets already validated.

✓ PARP

✓ ATM

✓ CYC-E

✓ BRCA

✓ CHK-1

✓ ATR

✓ DNA-PK

✓ P53

DDRi Drug Development Pipeline	Indication	Development Stage			
		Drug Discovery	Lead Optimization	Pre-clinical	Clinical Trials
kt-3283	PARP-resistant adult & childhood cancers	[Progress bar: Drug Discovery to Lead Optimization]			
kt-3000 series <i>Dual-function DDR inhibitors</i>		[Progress bar: Drug Discovery to Lead Optimization]			
Deep Docking AI Programs		AI Discovery & Lead Optimization		Confirmatory Assays	Clinical Trials
PARP (kt-2000AI)	Solid tumors	[Progress bar: Drug Discovery to Lead Optimization]			
Other DDR targets		[Progress bar: Drug Discovery to Lead Optimization]			
		[Progress bar: Drug Discovery to Lead Optimization]			



## FIRST AI TARGET: A CNS PENETRANT SELECTIVE INHIBITOR OF PARP-1

- PARP is a type of enzyme that helps repair DNA damage in cells
- PARP inhibitors are a type of cancer drug that work by preventing cancer cells from repairing, allowing them to die
- 1st generation PARP-1/2 inhibitors have achieved commercial success in the treatment of certain breast, ovarian and prostate cancers
- But they are limited by side effects and lack the ability to treat cancers that spread to the brain, giving rise to the need for a PARP-1 selective inhibitor to reduce side effects that can also treat CNS metastases



**\$2.3B**

in annual revenue from first-generation PARP inhibitors<sup>1</sup>



# INVESTMENTS IN DNA-DAMAGE RESPONSE BY MULTI-NATIONAL PHARMACEUTICAL CORPORATIONS

## RECENT DDR TRANSACTIONS

**Oct 2023**

\$1.5B (\$161M upfront)  
FDA status at signing: preclinical



PARP-inhibitor  
License Agreement



**Jun 2022**

\$1.2B (\$125M upfront)  
FDA status at signing: preclinical



ATR-inhibitor  
License Agreement



**Mar 2020**

\$1.3B (\$20M upfront)  
FDA status at signing: drug discovery



Discovery  
Collaboration

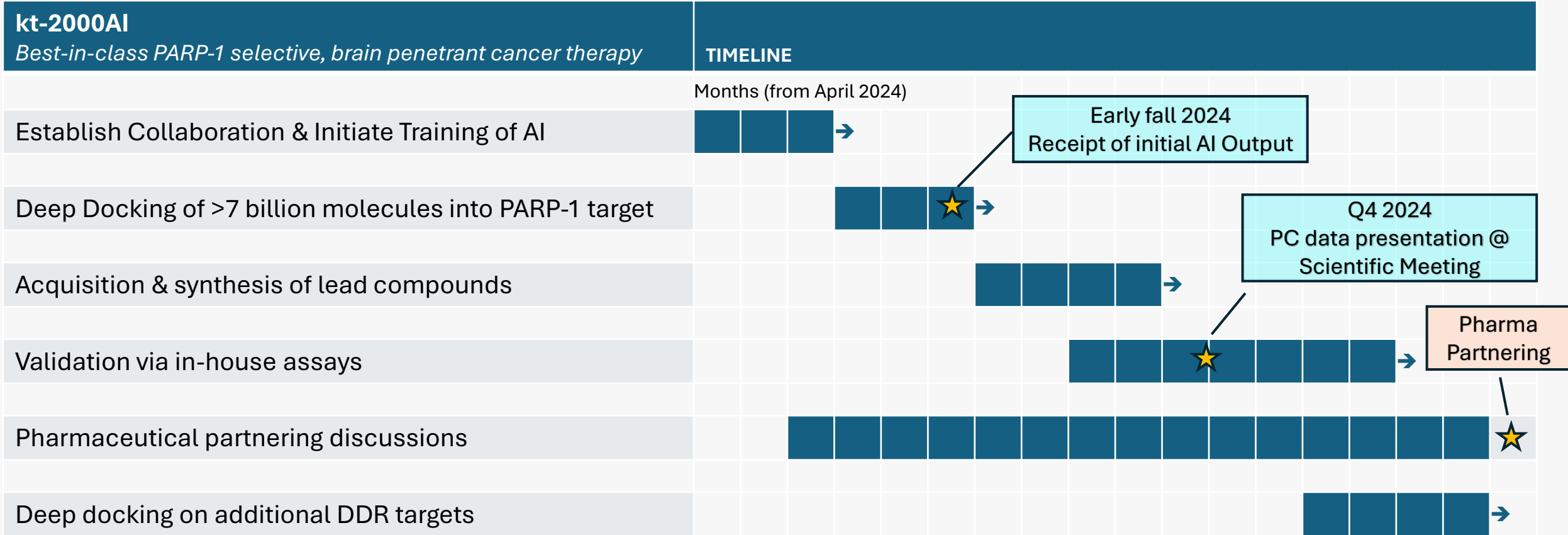


**>\$25B**

INVESTED  
TO DATE



# H2 2024 / H1 2025 DEEP DOCKING™ AI MILESTONES



# EXPERIENCED TEAM WITH A TRACK RECORD OF SUCCESS

Our team has deep experience in drug discovery research, preclinical and clinical development and regulatory affairs necessary to advance breakthrough innovations to become potential life-changing treatments in the oncology field.



**JEFFREY BACHA, BSC, MBA**  
Executive Chairman/Director

- 25 years of experience as founder and executive of multiple companies across the health sector such as Kintara Therapeutics (NASDAQ: KTRA), XBiotech, Inc. (NASDAQ: XBIT), Inimex Pharmaceuticals and Inflazyme Corp.
- Member of the National Brain Tumor Society Research Roundtable and the Board of the Leukemia Lymphoma Society of Canada



**MADS DAUGAARD, PHD**  
President & Chief Scientific Officer

- World Leader in translational cancer research with expertise in DNA-damage response mechanisms and therapeutics targeting DNA integrity
- Senior Research Scientist at Vancouver Prostate Centre, Associate Professor at University of British Columbia, Department of Urologic Sciences and Co-founder of VAR2 Pharmaceuticals (2012) and VarCT Diagnostics (2017)



**DAVID HYMAN, CPA**  
Chief Financial Officer

- 20+ years of experience in financial and economic analysis for public and private enterprises in addition to financial governance and public accounting
- Previously CFO of TheraCann International, CFO and a Board Member of a TSX-V shell company (HAW Capital Corp.) that completed an RTO transaction with GOLO Mobile Inc., CFO of Merrco Payments Inc., President at Camcor Partners Ltd.



**ARTEM CHERKASOV, PHD**  
SAB/Senior AI & Medicinal Chemistry Advisor

- Professor at UBC's Department of Urologic Sciences and Senior Scientist at Vancouver Prostate Centre
- Co-authored 200+ research papers, filed 80+ patents, and licensed 8 drug candidates to major companies as well as utilized AI-based platform, Deep Docking, to identify potential COVID-19 treatments, sharing findings with the scientific community



**JOHN LANGLANDS, PHD**  
Chief Operating Officer

- 25+ years of experience in the preclinical and clinical development of new pharmaceuticals at Naegis Pharmaceuticals, Kintara Pharmaceuticals (NASDAQ: KTRA) and Inflazyme Pharmaceuticals
- Previously Program Authority and Senior Lecturer for postgraduate training in Pharmaceutical Medicine & Drug Development UNSW in Sydney, Australia

## INDEPENDENT DIRECTORS

**MICHAEL LIGGETT, CPA**  
Director

- 30 years of experience at public and private companies including Ico Therapeutics, Naegis Pharmaceuticals and Inflazyme Pharmaceuticals
- Has completed more than \$300 million in equity and debt financings and closed more than \$200 million in acquisition transactions

**AL DELUCREZIA**  
Director

- Was CEO, CFO, President and Director of Manera Capital Corp. (now GT Gold Corp.)
- Founded Califfi Capital Corp., and has been its CEO since 2017, as well as Vincero Capital Corp, also serving as its CEO since 2019





# SCIENTIFIC ADVISORY BOARD



## **DENNIS BROWN, PHD**

Chair, Scientific Advisory Board (SAB)/Director

- Involved in cancer drug discovery and development for 35+ years and currently serves as a member of the National Brain Tumor Society Research Roundtable
- Founded or co-founded multiple companies including Matrix Pharmaceutical, Inc., Mountain View Pharmaceuticals, ChemGenex Pharmaceuticals and Kintara Pharmaceuticals (NASDAQ: KTRA)



## **PETRA HAMERLIK, PHD**

SAB/Senior Drug Development Advisor

- Professor, Chair of Translational Neuro-Oncology, University of Manchester, UK
- Former director and principal scientist, AstraZeneca, DNA-damage response program
- Highly regarded researcher, author and lecturer in neuro oncology



## **WANG SHEN, PHD**

SAB/Senior Medicinal Chemistry Advisor

- Inventor of the kt-2000, kt-3000 and kt-4000 families of drug candidates under development by Rakovina Therapeutics co-author of over 40 peer-reviewed publications and co-inventor of over 40 patents
- 20+ years of drug discovery and project management at large pharmaceutical companies and founder of Viva Vision Biotech



## **ARTEM CHERKASOV, PHD**

SAB/Senior AI & Medicinal Chemistry Advisor

- Professor at UBC's Department of Urologic Sciences and Senior Scientist at Vancouver Prostate Centre
- Co-authored 200+ research papers, filed 80+ patents, and licensed 8 drug candidates to major companies as well as utilized AI-based platform, Deep Docking, to identify potential COVID-19 treatments, sharing findings with the scientific community



## **LEONARD POST, PHD**

SAB/Senior Drug Development Advisor

- 35+ years of drug development and leadership experience in the pharmaceutical and biotechnology industry spanning companies of all sizes
- Previously chief scientific officer of BioMarin, senior vice president of research and development for Onyx Pharmaceuticals and vice president of discovery research for Parke-Davis Pharmaceuticals



## **NEIL SANKAR, MD**

SAB/Executive Medical Director

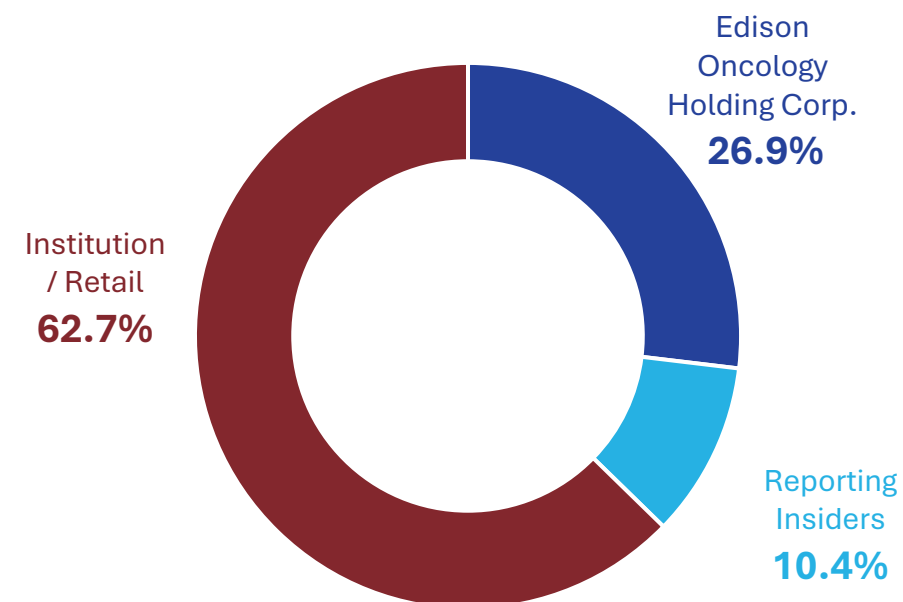
- Held Clinical development positions within leading Biotech/Pharma including Genentech, Medimmune, Pharmacyclis, Fiveprime, Otsuka, Portola, CBT Pharmaceuticals, LSK biopharma and Rhizen Pharmaceuticals
- Extensive experience in the application of US Food and Drug Administration regulations



# MARKET SUMMARY

EXCHANGE	<b>TSX Venture Exchange (TSXV)</b>
SYMBOL	<b>RKV</b>
SECTOR / INDUSTRY	<b>Biopharmaceuticals / Oncology</b>
26 WEEK RANGE <sup>1</sup>	<b>CAD \$0.07 -0.14</b>
SHARES OUTSTANDING FULLY DILUTED	<b>90,289,175</b> <b>128,184,676</b>
WARRANTS <sup>2</sup>	<b>22,990,000</b>
MARKET CAPITALIZATION <sup>1</sup>	<b>CAD ~ \$8.13 million</b>
AUDITORS	<b>Davidson &amp; Company LLP</b>

## OWNERSHIP SUMMARY



1) Prices are as of September 5, 2024

2) \$0.19 weighted average exercise price and 2.7 years weighted average remaining life as of July 31, 2024 – consists of 3,028,000 warrants issued with convertible debt (\$0.15, 1.4 years remaining life), 19,950,000 2024 Private Placement warrants (\$0.20, 3.0 years remaining life), and 12,000 finders warrants (\$0.20, 3.0 years remaining life).

Source: FactSet

# WHY INVEST IN RAKOVINA THERAPEUTICS

A paradigm shift in drug discovery and therapeutic intervention to treat cancer.



## \$18B ADDRESSABLE MARKET

Broad cancer application targeting the **75% of all solid tumors** that harbor a DNA-Damage response defect.



## SUPERIOR DEEP DOCKING™ AI PLATFORM

Enables up to a **100-fold acceleration**<sup>3</sup> of virtual screening and a **6,000-fold enrichment**<sup>3</sup> in candidate drug molecules with greater precision for maximizing success.



## REAL-WORLD PROVEN TECHNOLOGY

**Put to the test during COVID-19.** Successful screening of billions of compounds in just 20 days<sup>4</sup> and drug approval in 11 months.



## UNMATCHED INTEGRATED DRUG VALIDATION

A fully integrated DDR drug validation platform to optimize artificial intelligence outputs with **in-house laboratory infrastructure and wet lab operations** to advance human clinical trials and pharmaceutical partnerships.



## BRING-TO-MARKET MANAGEMENT TEAM


Deep **experience in drug discovery** research, development, and the approval process to advance breakthrough innovation.

## IN THE MEDIA

READ  
ARTICLE



# TOP 10

**THE  
GLOBE  
AND  
MAIL** 

## **UNDERVALUED BIOTECHNOLOGY INDUSTRY STOCKS**

By the Globe & Mail

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**OVER 70% OF  
PHARMACEUTICAL  
BREAKTHROUGHS STEM  
FROM THE EFFORTS OF  
SMALL BIOTECH COMPANIES  
LIKE RAKOVINA  
THERAPEUTICS**



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