

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of July 2023

Commission File Number: 001-39458

**Medicenna Therapeutics Corp.**  
(Translation of registrant's name into English)

**2 Bloor St. W., 7th Floor**  
**Toronto, Ontario M4W 3E2, Canada**  
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F [ X ]    Form 40-F [   ]

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**MEDICENNA THERAPEUTICS CORP.**

Date: July 28, 2023

By: /s/ Elizabeth Williams  
Name: Elizabeth Williams  
Title: Chief Financial Officer

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## Other Events

On July 28, 2023, Medicenna Therapeutics Corp. (the “Company”) issued a press release announcing its financial results for the fiscal quarter ended June 30, 2023. The Company’s unaudited interim condensed consolidated financial statements for the period ended June 30, 2023 are attached as Exhibit 99.1 and are incorporated by reference herein. The Company’s Management’s Discussion and Analysis for the period ended June 30, 2023 is attached as Exhibit 99.2 hereto and is incorporated by reference herein. The Company’s Form 52- 109F2 Certification of Interim Filings Full Certificate – CEO, Form 52- 109F2 Certification of Interim Filings Full Certificate – CFO, and news release dated July 28, 2023 are each attached hereto as Exhibits 99.3, 99.4 and 99.5, respectively.

The information in this Report on Form 6-K and in the attached Exhibits 99.1 and 99.2 shall be deemed to be incorporated by reference into the Company’s registration statements on Forms F-10 (File No. 333-238905), Form S-8 (No. 333-240225) and Form F-3 (No. 333-269868), and related prospectuses, as such registration statements and prospectuses may be amended from time to time, and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

The information in the attached Exhibits 99.3, 99.4 and 99.5 is being furnished and shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in any filing made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise set forth herein or as shall be expressly set forth by specific reference in such a filing.

## EXHIBIT INDEX

<u>Exhibit</u>	<u>Description</u>
<a href="#">99.1</a>	<a href="#">Interim Financial Statements for the period ended June 30, 2023</a>
<a href="#">99.2</a>	<a href="#">Management’s Discussion and Analysis for the period ended June 30, 2023</a>
<a href="#">99.3</a>	<a href="#">Form 52- 109F2 Certification of Interim Filings Full Certificate – CEO</a>
<a href="#">99.4</a>	<a href="#">Form 52- 109F2 Certification of Interim Filings Full Certificate – CFO</a>
<a href="#">99.5</a>	<a href="#">News release dated July 28, 2023</a>



Interim condensed consolidated financial statements of

**Medicenna Therapeutics Corp.**

(Expressed in Canadian Dollars)

For the three months ended June 30, 2023

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# Medicenna Therapeutics Corp.

Interim Condensed Consolidated Statements of Financial Position

(Expressed in thousands of Canadian Dollars, except for share and per share amounts)

(Unaudited)

as at

	June 30, 2023	March 31, 2023
	\$	\$
<b>Assets</b>		
Current assets		
Cash and cash equivalents	29,615	33,596
Prepays and deposits	1,036	1,934
Other receivables	835	855
	31,486	36,385
Intangible assets (Note 8)	60	61
	31,546	36,446
<b>Liabilities</b>		
Current liabilities		
Accounts payable and accrued liabilities	3,233	3,800
	3,233	3,800
Warrant derivative (Note 6)	1,413	3,160
	4,646	6,960
<b>Shareholders' Equity</b>		
Common shares (Note 3)	100,924	100,924
Contributed surplus (Notes 4 and 5)	9,782	9,486
Accumulated other comprehensive income	37	57
Deficit	(83,843)	(80,981)
	26,900	29,486
	31,546	36,446

The accompanying notes are an integral part of these interim condensed consolidated financial statements.

# Medicenna Therapeutics Corp.

Interim Condensed Consolidated Statements of Loss and Comprehensive Loss  
(Expressed in thousands of Canadian Dollars, except for share and per share amounts)  
(Unaudited)

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>Operating expenses</b>		
General and administration (Note 10)	1,647	1,919
Research and development (Note 10)	2,812	2,411
<b>Total operating expenses</b>	<b>4,459</b>	<b>4,330</b>
Finance income	(346)	(30)
Change in fair value of warrant derivative (Note 6)	(1,747)	-
Foreign exchange (gain) loss	496	(145)
	(1,597)	(175)
<b>Net loss for the period</b>	<b>(2,862)</b>	<b>(4,155)</b>
Cumulative translation adjustment	(20)	(63)
Comprehensive loss for the period	(2,882)	(4,218)
<b>Basic and diluted loss per share for the period</b>	<b>(0.04)</b>	<b>(0.07)</b>
<b>Weighted average number of common shares outstanding (Note 3)</b>	<b>69,637,469</b>	<b>56,133,555</b>

The accompanying notes are an integral part of these interim condensed consolidated financial statements.

# Medicenna Therapeutics Corp.

Interim Condensed Consolidated Statements of Cash Flows  
(Expressed in thousands of Canadian Dollars)  
(Unaudited)

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>Operating activities</b>		
Net loss for the period	(2,862)	(4,155)
Items not involving cash		
Depreciation	1	-
Stock based compensation	296	407
Unrealized foreign exchange	493	(168)
Accrued interest	(29)	(11)
Change in fair value of warrant derivative (Note 6)	(1,747)	-
Changes in non-cash working capital		
Other receivables and deposits	947	2,095
Accounts payable and accrued liabilities	(567)	(474)
	(3,468)	(2,306)
<b>Financing activities</b>		
Issuance of share capital on ATM, net of issuance costs (Note 3)	-	969
	-	969
Effect of foreign exchange on cash	(513)	105
Net decrease in cash	(3,981)	(1,232)
Cash, beginning of period	33,596	20,535
<b>Cash, end of period</b>	<b>29,615</b>	<b>19,303</b>

The accompanying notes are an integral part of these interim condensed consolidated financial statements.

# Medicenna Therapeutics Corp.

Interim Condensed Consolidated Statements of Changes in Shareholders' Equity  
(Expressed in thousands Canadian Dollars, except for share and per share amounts)  
(Unaudited)

	Common shares issued and outstanding		Contributed surplus	Accumulated other comprehensive income	Deficit	Total shareholders' equity
	Number	Amount				
		\$	\$	\$	\$	\$
<b>Balance, March 31, 2022</b>	<b>55,647,479</b>	<b>83,671</b>	<b>7,926</b>	<b>171</b>	<b>(70,933)</b>	<b>20,835</b>
Stock based compensation	-	-	407	-	-	407
Issued on ATM financing (Note 3)	656,656	969	-	-	-	969
Cumulative translation adjustment	-	-	-	(63)	-	(63)
Net loss for the period	-	-	-	-	(4,155)	(4,155)
<b>Balance, June 30, 2022</b>	<b>56,304,135</b>	<b>84,640</b>	<b>8,333</b>	<b>108</b>	<b>(75,088)</b>	<b>17,993</b>
<b>Balance, March 31, 2023</b>	<b>69,637,469</b>	<b>100,924</b>	<b>9,486</b>	<b>57</b>	<b>(80,981)</b>	<b>29,486</b>
Stock based compensation	-	-	296	-	-	296
Cumulative translation adjustment	-	-	-	(20)	-	(20)
Net loss for the period	-	-	-	-	(2,862)	(2,862)
<b>Balance, June 30, 2023</b>	<b>69,637,469</b>	<b>100,924</b>	<b>9,782</b>	<b>37</b>	<b>(83,843)</b>	<b>26,900</b>

The accompanying notes are an integral part of these interim condensed consolidated financial statements.



# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

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## 1. Nature of business and liquidity

The Company's principal business activity is the development and commercialization of IL-2, IL-4 and IL-13 Superkines and Empowered Superkines for the treatment of cancer, inflammation and immune-mediated diseases. Medicenna has four wholly owned subsidiaries, Medicenna Therapeutics Inc. ("MTI") (British Columbia), Medicenna Biopharma Inc. ("MBI") (Delaware), Medicenna Biopharma Inc. ("MBIBC") (British Columbia) and Medicenna Australia PTY Ltd ("MAL") (Australia). Medicenna is traded on both the Toronto Stock Exchange and the Nasdaq Capital Market ("Nasdaq") under the symbol "MDNA".

As at June 30, 2023, the head and registered office is located at 2 Bloor St W, 7th Floor, Toronto, Ontario, Canada.

Since inception, the Company has devoted its resources to funding R&D programs, including securing intellectual property rights and licenses, conducting discovery research, manufacturing drug supplies, initiating preclinical and clinical studies, submitting regulatory dossiers and providing administrative support to R&D activities, which has resulted in an accumulated deficit of \$83.8 million as of June 30, 2023. With current finance income only consisting of interest earned on excess cash, cash equivalents and marketable securities, losses are expected to continue while the Company's R&D programs are advanced.

We currently do not earn any revenues from our product candidates and are therefore considered to be in the development stage. As required, the Company will continue to finance its operations through the sale of equity or pursue non-dilutive funding sources available to the Company in the future. The continuation of our research and development activities for bizaxofusp (formerly MDNA55), MDNA11 and the BiSKITs platform and the commercialization of bizaxofusp is dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and revenues from strategic partners. There is no guarantee of future financing and that our research and development activities associated with bizaxofusp, MDNA11 and the BiSKITs platform will be successful, which may require a change in plans of the Company. We have no current sources of revenues from strategic partners.

Management has forecasted that the Company's current level of cash will be sufficient to execute its current planned expenditures through Q3 of calendar 2024. The Company has the ability to reduce or eliminate planned expenditure to extend its operating runway if it is unable to obtain additional financing when required.

## 2. Basis of presentation and significant accounting policies

### a) Statement of compliance

These interim condensed consolidated financial statements have been prepared in accordance with International Accounting Standards ("IAS") 34 'Interim Financial Reporting' (IAS 34) using accounting policies consistent with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the Interpretations of the International Financial Reporting and Interpretations Committee ("IFRIC").

The interim condensed consolidated financial statements do not include all the information and disclosures required in the annual financial statements and should be read in conjunction with the Company's audited financial statements for the year ended March 31, 2023.

The interim condensed consolidated financial statements were approved by the Company's Board of Directors and authorized for issue on July 27, 2023.

### b) Functional and presentation currency

The functional currency of an entity and its subsidiary is the currency of the primary economic environment in which the entity operates. The functional currency of the parent company is the Canadian dollar and the functional currency of MBI is the US dollar, the functional currency of MTI and MBI BC is the Canadian dollar, the functional currency of MAL is the Australian dollar, and the presentation currency of the parent company is the Canadian dollar.

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

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## 2. Basis of presentation and significant accounting policies cont'd

### c) Significant accounting judgments, estimates and assumptions

The preparation of these unaudited interim condensed consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities at the date of the unaudited condensed consolidated interim financial statements and reported amounts of revenues and expenses during the reporting period. Actual outcomes could differ from these estimates.

The unaudited interim condensed consolidated financial statements include estimates, which, by their nature, are uncertain. The impacts of such estimates are pervasive throughout the unaudited interim condensed consolidated financial statements and may require accounting adjustments based on future occurrences. The estimates and underlying assumptions are reviewed on a regular basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

The accompanying unaudited interim condensed consolidated financial statements are prepared in accordance with IFRS and follow the same accounting policies and methods of application as the audited consolidated financial statements of the Company for the year ended March 31, 2023. They do not include all of the information and disclosures required by IFRS for annual financial statements. In the opinion of management, all adjustments considered necessary for fair presentation have been included in these unaudited condensed consolidated interim financial statements. Operating results for the three months ended June 30, 2023 are not necessarily indicative of the results that may be expected for the full year ended March 31, 2024. For further information, see the Company's audited consolidated financial statements including notes thereto for the year ended March 31, 2023.

## 3. Share capital

### Authorized

Unlimited common shares

### Equity Issuances

#### *August 2022 Public Offering*

On August 10, 2022, pursuant to an underwritten public offering, 13,333,334 units were sold at a purchase price of US\$1.50 per unit for gross proceeds of US\$20.0 million (\$25.6 million). Each unit included one common share with a fair value of US\$1.06 and one common share purchase warrant with a fair value of US\$0.44 (see Note 6). Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US\$1.85 until August 9, 2027. We incurred transaction costs of \$2.2 million (US\$1.7 million) of which \$1.6 million (US\$1.2 million) were allocated to share issue costs and \$0.6 million (US\$0.5 million) were allocated to operating expenses, based on their relative fair values.

#### *At-The-Market Facility*

On February 17, 2023, the Company entered into a sales agreement with Oppenheimer & Co. Inc. acting as a sales agent, pursuant to which the Company may, from time to time sell, through at-the-market ("2023 ATM") on the NASDAQ such number of common shares as would have an aggregate offering price of up to US\$10.0 million (the 2023 ATM Offering). As of June 30, 2023, the Company has issued no common shares on the 2023 ATM Offering.

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 3. Share capital cont'd

On December 30, 2020, the Company entered into a sales agreement with SVB Leerink acting as sales agent, pursuant to which the Company may, from time to time sell, through at-the-market ("ATM") on the NASDAQ such number of common shares as would have an aggregate offering price of up to US\$25.0 million (the ATM Offering), which expired December 30, 2022.

During the three months ended June 30, 2022, the Company issued 656,656 common shares for gross proceeds of US\$0.8 million at an average price of US\$1.20. The company received; net of commissions US\$0.7 million. In total, we incurred share issuance costs (including commissions) of US\$0.1 million.

### Calculation of loss per share

Loss per common share is calculated using the weighted average number of common shares outstanding. For the periods ended June 30, 2023 and 2022, the calculation was as follows:

	Three months ended June 30, 2023	Three months ended June 30, 2022
Common shares issued and outstanding, beginning of period	69,637,469	55,647,479
ATM issuances	-	486,076
<b>Weighted average common shares issued and outstanding, end of period</b>	<b>69,637,469</b>	<b>56,133,555</b>

The effect of any potential exercise of the Company's stock options and warrants outstanding during the year has been excluded from the calculation of diluted loss per common share as it would be anti-dilutive.

## 4. Warrants

### Warrant continuity:

	Number of Warrants	Weighted average exercise price
<b>Warrants outstanding at March 31, 2022 and June 30, 2022</b>	<b>2,964,542</b>	<b>\$ 1.51</b>
Common share purchase warrants issued in the 2022 Public Offering	13,333,334	2.39
<b>Warrants outstanding at September 30, 2022</b>	<b>16,297,876</b>	<b>\$ 2.23</b>
Warrants expired during the period	(112,490)	1.75
<b>Warrants outstanding at December 31, 2022, March 31 and June 30, 2023</b>	<b>16,185,386</b>	<b>\$ 2.23</b>

There were no warrants exercised during the period ended June 30, 2023.

Subsequent to the quarter end, the expiry date of the warrants set to expire on July 17, 2023 were extended to October 17, 2024. This amendment will be accounted for in the quarter ended September 30, 2023.

At June 30, 2023, warrants were outstanding and exercisable, enabling holders to acquire common shares as follows:

Number of Warrants	Exercise Price	Expiry Date
	\$	
1,549,052	1.75	July 17, 2023
1,303,000	1.20	December 21, 2023
13,333,334	US 1.85	August 9, 2027
<b>16,185,386</b>		

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 5. Stock options

During the three months ended June 30, 2023, the Company granted 79,000 stock options at an average exercise price of \$0.67 per share. 79,000 options were granted to advisors of the Company at a price of \$0.67 and vest 50% upon issuance and 50% after 1 year and have a five-year life.

During the three months ended June 30, 2022, the Company granted 1,115,713 stock options at an average exercise price of \$1.45 per share. 822,608 of the options were granted to the Company's officers and employees and vest 1/3 after one year, 1/3 after two years and 1/3 after three years, and have a ten-year life; and 293,105 options were granted to Directors of the Company at a price of \$1.45 and vest 50% upon issuance and 50% after 1 year and have a five-year life

Stock option transactions for the period ended June 30, 2023 and 2022 are set forth below:

	Number of options	Weighted average exercise price
<b>Balance outstanding at March 31, 2022</b>	<b>4,464,640</b>	<b>2.00</b>
Granted	1,115,713	1.45
<b>Balance outstanding at June 30, 2022</b>	<b>5,580,353</b>	<b>\$ 1.89</b>
Granted	175,000	1.36
<b>Balance outstanding at September 30, 2022 and December 31, 2022</b>	<b>5,755,353</b>	<b>\$ 1.88</b>
Expired	(100,000)	2.88
Forfeited	(45,000)	3.86
<b>Balance outstanding at March 31, 2023</b>	<b>5,610,353</b>	<b>\$ 1.84</b>
Granted	79,000	0.67
<b>Balance outstanding at June 30, 2023</b>	<b>5,689,353</b>	<b>\$ 1.82</b>

The following table summarizes information about stock options outstanding at June 30, 2023:

Exercise Prices	Options Outstanding			Options Exercisable	
	Options	Weighted average remaining contractual life	Weighted average exercise price	Options	Weighted average exercise price
		Years	\$		\$
0.67-1.99	3,309,713	6.20	1.26	2,561,808	1.22
2.00-2.99	1,579,000	3.85	2.03	1,579,000	2.03
3.00-5.19	800,640	4.18	3.76	468,589	3.96
	<b>5,689,353</b>	<b>5.27</b>	<b>1.82</b>	<b>4,609,397</b>	<b>1.85</b>

The following assumptions were used in the Black-Scholes option-pricing model to determine the fair value of stock options granted during the period:

	June 30, 2023	March 31, 2023
Exercise price	\$0.67	\$1.36-1.45
Grant date share price	\$0.67	\$1.36-1.45
Risk free interest rate	5.35%	5.10%
Expected life of options	5 years	5 years
Expected volatility	90%	90%
Expected dividend yield	-	-
Forfeiture rate	0%	0% - 15%
Weighted average fair value of options granted during the period	\$0.48	\$1.04

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 6. Warrant Derivative

On August 10, 2022, pursuant to an underwritten public offering, 13,333,334 units were sold at a purchase price of US\$1.50 per unit for gross proceeds of US\$20.0 million (\$25.6 million). Each unit included one common share and one common share purchase warrant. Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US\$1.85 until August 9, 2027. We incurred transaction costs of \$2.2 million (US\$1.7 million) of which \$1.6 million (US\$1.2 million) were allocated to share issue costs and \$0.6 million (US\$0.5 million) were allocated to operating expenses, based on their relative fair values.

Under IFRS 9 Financial Instruments and IAS 32 Financial Instruments: Presentation, warrants with an exercise price denominated in a currency that differs from an entity's functional currency are treated as a derivative measured at fair value with subsequent changes in fair value accounted for through the consolidated statement of loss. Our warrants with an exercise price of US\$1.85 meet this requirement and we have presented the value of these warrants as a non-current liability on the consolidated statement of financial position. Upon exercise, the recorded liability will be included in our share capital along with the proceeds from the exercise. If these warrants expire, the related liability is reversed through the consolidated statement of loss. There is no cash flow impact as a result of the accounting treatment for changes in the fair value of the warrant derivative or when warrants expire unexercised.

Estimating the fair value for our warrant derivative requires determining the most appropriate valuation model which is dependent on the terms and conditions of the issuance. This estimate also requires determining the most appropriate inputs to the valuation model, including the expected life of the warrant derivative, expected share price volatility and expected dividend yield and making assumptions about them.

A reconciliation of the change in fair value of the warrant derivative is as follows:

	<b>Fair value of Warrant Derivatives</b>
	<b>\$</b>
<b>Balance September 30, 2022</b>	<b>5,707</b>
Change in fair value of warrant derivative	(3,711)
Foreign exchange loss	(36)
<b>Balance December 31, 2022</b>	<b>1,960</b>
Change in fair value of warrant derivative	1,123
Foreign exchange loss	77
<b>Balance March 31, 2023</b>	<b>3,160</b>
Change in fair value of warrant derivative	(1,397)
Foreign exchange loss	(350)
<b>Balance June 30, 2023</b>	<b>1,413</b>

We use historical data to estimate the expected dividend yield and expected volatility of our stock in determining the fair value of the warrants. The risk-free interest rate is based on U.S. Department of Treasury benchmark treasury yield rates in effect at the time of valuation and the expected life of the warrants represents the estimated length of time the warrants are expected to remain outstanding.

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 6. Warrant Derivative cont'd

The following table summarizes the key assumptions used in the Black-Scholes valuation of the warrant derivative at June 30, 2023:

	June 30, 2023	March 31, 2023
Fair value of warrants	\$0.11	\$0.24
Underlying share price	\$0.64	\$0.88
Risk free interest rate	5.35%	5.10%
Expected hold period to exercise	2.25 years	2.5 years
Expected share price volatility	83%	85%
Expected dividend yield	Nil	Nil

The following table summarizes our outstanding warrant derivative for the three months ending June 30, 2023:

Exercise Price	Outstanding Beginning of the Period	Granted during the Period	Outstanding, End of the Period	Weighted Average Remaining Contractual Life (years)
US\$1.85	13,333,334	-	13,333,334	4.11

## 7. Government assistance

### *CPRIT assistance*

In February 2015, the Company received notice that it had been awarded a grant by the Cancer Prevention Research Institute of Texas (“CPRIT”) whereby the Company was eligible to receive up to US\$14.1 million on eligible expenditures over a three-year period related to the development of the Company’s phase 2b clinical program for MDNA55. As of March 31, 2022, the grant with CPRIT was complete.

Of the US\$14.1 million grant approved by CPRIT, Medicenna had received US\$14.1 million from CPRIT at March 31, 2022.

Under the terms of the grant, the Company is required to pay a royalty to CPRIT, comprised of 3-5% of revenues on net sales of MDNA55 until aggregate royalty payments equal 400% of the grant funds received at which time the ongoing royalty will be 0.5% of revenues. At this time the royalty is not probable and therefore no liability has been recorded. In addition, the Company must maintain a presence in Texas for three years following completion of the grant.

## 8. Commitments

### *Intellectual property*

On August 21, 2015, the Company exercised its right to enter into two license agreements (the “Stanford License Agreements”) with the Board of Trustees of the Leland Stanford Junior University (“Stanford”). In connection with this licensing agreement, the Company issued 649,999 common shares with a value of \$0.1 million to Stanford and affiliated inventors. The value of these shares has been recorded as an intangible asset that is being amortized over the life of the underlying patents. As at June 30, 2023, the Company’s intangible assets have a remaining capitalized net book value of \$60 thousand (March 31, 2023 - \$61 thousand).

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 8. Commitments cont'd

The Company has entered into various license agreements with respect to accessing patented technology. In order to maintain these agreements, the Company is obligated to pay certain costs based on timing or certain milestones within the agreements, the timing of which is uncertain. These costs include ongoing license fees, patent prosecution and maintenance costs, royalty and other milestone payments. As at June 30, 2023, the Company is obligated to pay the following:

- Given the current development plans and expected timelines of the Company it is assumed that project milestones of US\$0.3 million will be due in the next five years.
- Project milestone payments, assuming continued success in the development programs, of uncertain timing totaling US\$2.0 million and an additional US\$2.0 million in sales milestones.

<b>Contractual obligations</b>	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>Total</b>
	\$	\$	\$	\$
Patent licensing costs	463	1,046	-	1,509

## 9. Related party disclosures

### (a) Key management personnel

Key management personnel, which consists of the Company's officers (President and Chief Executive Officer, Chief Financial Officer, Chief Development Officer) and directors, earned the following compensation for the following periods:

	<b>Three months ended June 30, 2023</b>	Three months ended June 30, 2022
	\$	\$
Salaries and wages	253	253
Board fees	78	76
Stock option expense	243	342
	574	671

### (b) Amounts payable to related parties

As at June 30, 2023, the Company had trade and other payables in the normal course of business, owing to directors and officers of \$0.1 million, (2022 - \$0.1 million) related to board fees and accrued vacation.

# Medicenna Therapeutics Corp.

Notes to the interim condensed consolidated financial statements (unaudited)

For the Three months ended June 30, 2023 and 2022

(Tabular amounts expressed in thousands of Canadian Dollars, except for share and per share amounts)

## 10. Components of Expenses

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>General and Administration Expenses</b>		
Depreciation expense	1	-
Stock based compensation	160	296
Facilities and operations	152	124
Public company expenses	1,070	1,277
Salaries and benefits	264	222
	<b>1,647</b>	<b>1,919</b>

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>Research and Development Expenses</b>		
Chemistry, manufacturing, and controls	496	495
Regulatory	27	28
Discovery and pre-clinical	517	470
Clinical	697	630
Salaries and benefits	500	514
Licensing, patent, legal fees and royalties	415	161
Stock based compensation	135	111
Other research and development expenses	25	2
	<b>2,812</b>	<b>2,411</b>

## 11. Subsequent Events

In July 2023, the Company received \$0.7 million through our Australian R&D incentive program relating to the year ended March 31, 2023. The amount receivable was recorded as a reduction in research and development expenses in the year ended March 31, 2023.

Warrants outstanding and exercisable, totaling 1,549,052 due to expire on July 17, 2023, and issued on October 17, 2019, as part of a public offering of an aggregate of 5,307,693 units of the Company, were extended to October 17, 2024.





*Management's Discussion and Analysis*

*For the Three Months Ended  
June 30, 2023*

**DATE OF REPORT: July 27, 2023**

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## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as at July 27, 2023 for the three months ended June 30, 2023 and should be read in conjunction with the unaudited interim condensed consolidated financial statements of Medicenna Therapeutics Corp. for the three months ended June 30, 2023 and June 30, 2022, and the audited annual consolidated financial statements and accompanying notes for the year ended March 31, 2023 (the "Annual Financial Statements"), which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). Our IFRS accounting policies are set out in note 2 of the Annual Financial Statements and all dollar amounts are expressed in Canadian dollars unless otherwise noted.

All references in this MD&A to "the Company", "Medicenna", "we", "us", or "our" and similar expressions refer to Medicenna Therapeutics Corp. and the subsidiaries through which it conducts its business, unless otherwise indicated.

## FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of applicable securities laws. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on current beliefs, expectations, or assumptions regarding the future of the business, future plans and strategies, operational results and other future conditions of the Company. These statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. All statements contained herein other than statements of historical fact regarding the prospects of the Company's industry or its prospects, plans, financial position or business strategy may constitute forward-looking statements and can generally be identified by the use of forward-looking words, such as "seek", "plan", "expect", "is expected", "continue", "predict", "potential", "budget", "scheduled", "estimate", "forecast", "contemplate", "intend", "anticipate", or "believe" or variations (including negative variations) of such words and phrases, or statements that certain actions, events or results "may", "could", "would", "should", "might", "shall" or "will" be taken, occur or be achieved and similar expressions are generally intended to identify forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other forward-looking statements will not be achieved. The Company cautions readers not to place undue reliance on these statements as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates and intentions expressed in such forward-looking statements. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, as applicable, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information and statements include, but are not limited to, the risks described under the heading "Risks and Uncertainties" in this MD&A, the Company's annual report on Form 20-F for the fiscal year ended March 31, 2023 (the "Annual Report on Form 20-F") filed with the U.S. Securities and Exchange Commission on June 27, 2023.

Forward-looking statements in this MD&A include, but are not limited to:

- the therapeutic potential, clinical development and related milestones of the Company's Superkines and Empowered Superkines including MDNA11, the BiSKITs<sup>TM</sup> platform and bizaxofusp (formerly MDNA55);
- the timely completion of the milestones related to the MDNA11 ABILITY Study (as defined below);
- the impact of the delay on clinical data;

- the clinical trial collaboration and supply agreement (“CTCSA”) with Merck (known as MSD outside the United States and Canada);
- statements related to the potential extensions of the term of patents;
- a potential strategic partnership to facilitate bizaxofusp’s further development and commercialization; and
- the use of proceeds from public equity offerings and the necessity for the Company to have recourse to such public equity offerings.

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, including the following:

- the lack of product revenue and inability to continue operations and research and development without sufficient funding;
- the Company’s requirements for, and our ability to obtain, future funding on favorable terms or at all;
- the Company’s history of losses and expectations of future losses;
- the Company’s inability to complete development of or the inability to commercialize (if approved) the Company’s product candidates, which are in the early stages of development;
- the expense, length and uncertainty of clinical drug development programs;
- the inability to achieve publicly announced milestones according to schedule, or at all;
- the risk that competitors may develop and market products that are more effective than the Company’s product candidates or that the products developed by competitors may render the Company’s product candidates obsolete or uncompetitive;
- the Company’s inability to secure a partnership for bizaxofusp (formerly MDNA55);
- the costs and uncertainty associated with extensive government regulation;
- the potential negative results from clinical trials or studies, adverse safety events or toxicities involving the Company’s products used alone or in combination with other products of collaborators;
- the Company’s ability to manage the unique risks and uncertainties related to developing biologics which could have a negative impact on future results of operations;
- the risk that preliminary and interim data from our clinical trials that we may announce or publish from time to time may change as patient data are further examined, audited or verified and more patient data become available;
- the value of the “Fast Track” designation granted to bizaxofusp and that it may not actually lead to a faster development or regulatory review or approval process and could be withdrawn by the United States Food and Drug Administration (“FDA”);
- the unfavorable pharmacokinetic (“PK”) or pharmacodynamic (“PD”) properties of MDNA11 and MDNA19 used alone or in combination with other products of collaborators;
- the potential of the pre-clinical products of the Company;
- the risk of product liability claims;
- the Company’s inability to enroll subjects in clinical trials or complete clinical trials on a timely basis;
- the failure of our product candidates to receive the marketing approval or market acceptance necessary for commercial success or to maintain any ongoing regulatory requirements it may be subject to;
- the potential for environmental exposure to hazardous or radioactive materials that are used in the Company’s discovery and development process;
- the disruption in the availability of key components for ongoing clinical studies that could delay clinical studies, product testing and regulatory approval of the Company’s product candidates;
- the Company’s reliance on third parties for the planning, conduct and monitoring of preclinical and clinical trials and for the manufacture of drug product;
- the Company’s reliance on contract manufacturers over whom the Company has limited control;

- the loss of license rights due to breach of license agreements;
- the conditions and restrictions of the Cancer Prevention and Research Institute of Texas (“CPRIT”) grant;
- the ability to protect the Company’s intellectual property and proprietary technology;
- the ability for the Company to obtain patent’s term extensions;
- the potential involvement in intellectual property litigation;
- the risk that third-parties on whom we rely for product development may not adequately protect the Company’s trade secrets;
- the risk of product liability claims;
- the limitations surrounding intellectual property rights;
- the volatility in the price of our common shares (“Common Shares”);
- the dilution of investor’s voting power and reductions in earnings per share owing to future issuances of equity or the conversion of securities into Common Shares;
- the fact that future profits will likely be used for the continued growth of the Company’s business and not for the payment of dividends;
- the Company’s treatment as a passive foreign investment company and potential adverse U.S. federal income tax consequences associated with such treatment;
- the difficulty U.S. investors may face in bringing actions against the Company for violations of U.S. federal or state securities laws and challenges in enforcing the judgments of U.S. courts against the Company and its directors and executive officers;
- the Company’s status as a foreign private issuer under applicable U.S. securities laws;
- the potential for the Company to lose its status as a foreign private issuer;
- changes in government regulations that could impact our business and operations;
- failure to comply with the U.S. Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act and other global corruption and anti-bribery laws;
- failure to comply with healthcare laws;
- the ability of the Company’s significant shareholders to assert a material influence over the Company’s operations and governance;
- the adverse impact of factors outside our control, such as global health pandemics, natural disasters, geopolitical conflict and macroeconomic challenges;
- the Company’s ability to successfully manage its growth;
- the failure of any acquired business, product, service or alliance to yield expected benefits;
- the Company’s dependence upon certain key personnel, the loss of whom could adversely affect our ability to achieve our business objectives;
- changes in government regulations that could impact our business and operations;
- failure to comply with the U.S. Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act and other global corruption and anti-bribery laws;
- a failure to comply with healthcare laws;
- foreign currency exchange risks relating to the relative value of the United States dollar;
- the Company’s ability to regain compliance and its ability to maintain future compliance with the minimum bid price requirement of the Nasdaq Capital Market (“Nasdaq”);
- the failure of our disclosure controls and procedures to detect all errors or prevent all incidences of fraud;
- the failure to maintain an effective system of internal controls;
- the vulnerability of the computer and information systems of the Company, its consultants and contractors, and third-parties on which the Company relies, to security breaches or failure; and
- the pursuit of opportunities for further research and development or additional business opportunities.

The forward-looking information in this MD&A does not include a full assessment or reflection of the negative effect of adverse economic conditions, including a potential recession, and related inflationary cost pressures, higher interest rates, financial and capital market volatility and labor challenges; the negative effect of adverse conditions associated with the continued evolution of the COVID-19 pandemic and geopolitical events; a declining level of business and consumer spending; regulatory initiatives, proceedings and decisions, government consultations and government positions that affect us and influence our business; and the efforts of the Company to mitigate such conditions or events.

All forward-looking statements reflect the Company's beliefs and assumptions based on information available at the time the assumption was made.

Although the forward-looking statements contained in this MD&A are based upon what the Company's management believes to be reasonable assumptions, the Company cannot assure readers that actual results will be consistent with these forward-looking statements.

Any forward-looking statements represent the Company's estimates only as of the date of this MD&A and should not be relied upon as representing the Company's estimates as of any subsequent date. The Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events, except as may be required by securities laws.

## COMPANY OVERVIEW

The Company's principal business activity is the development and commercialization of Superkines and Empowered Superkines for the treatment of cancer, inflammation and immune-mediated diseases. Medicenna has four wholly owned subsidiaries: Medicenna Therapeutics Inc. (British Columbia), Medicenna Biopharma Inc. (Delaware), Medicenna Biopharma Inc. (British Columbia) and Medicenna Australia PTY Ltd. (Australia). On November 13, 2017, Medicenna continued under the *Canada Business Corporations Act*. On August 24, 2020, Medicenna began trading on the Nasdaq under the symbol "MDNA".

Medicenna is an immunotherapy company developing novel, highly selective versions of interleukin-2 ("IL-2"), interleukin-4 ("IL-4") and interleukin-13 ("IL-13") tunable cytokines, called "Superkines". These Superkines can be developed either on their own as short or long-acting therapeutics or fused with cell killing proteins to generate Empowered Superkines that precisely deliver potent payloads to cancer cells without harming adjacent healthy cells. Superkines can also be fused with a large variety of proteins, antibodies and even other Superkines to incorporate two synergistic therapeutic activities into one molecule, creating novel Bi-Functional SuperKine Immunotherapies referred to by Medicenna as BiSKITs™. Medicenna's mission is to become the leader in the development and commercialization of Superkines, Empowered Superkines and BiSKITs for the treatment of a broad range of cancers and other diseases. The Company seeks to achieve its goals by drawing on its expertise, and that of world-class collaborators and advisors, to develop Revolutionary Medicines using Evolutionary Superkines. Compared to naturally occurring cytokines – that bind to multiple receptors on many cell types – Superkines are engineered with unique selectivity toward specific receptor subtypes and defined target cell subsets to precisely activate or inhibit relevant signalling pathways or immune cells in order to improve therapeutic efficacy and safety.

Medicenna has built diverse platforms, each comprised of a pipeline of Superkine candidates in-licensed from Leland Stanford Junior University ("Stanford"). This includes the MDNA109 platform that consists of IL-2 agonists, IL-2 antagonists and partial agonists of IL-2. Additional assets from Stanford also include several super-agonists of IL-4 and IL-13 and dual IL-4/IL-13 antagonists. In addition, Medicenna has also independently developed therapeutic agents based on its Empowered Superkine and BiSKITs platforms.

The most advanced of the Superkine programs is the MDNA109 platform which is a genetically engineered IL-2 Superkine designed to specifically bind to CD122 (IL-2Rβ) with high affinity. To further enhance its selectivity, two additional mutations (FEAA) were incorporated in MDNA109 to abolish binding to CD25. To improve the PK properties of the highly selective version of MDNA109 (MDNA109FEAA), it was genetically fused to protein scaffolds such as the Fc domain of IgG1 (MDNA19) or recombinant human albumin (MDNA11) effectively increasing the size of the Superkine and improving its half-life to avoid frequent daily dosing which is required for an approved version of IL-2, Proleukin.

We believe that, unlike Proleukin, both MDNA11 and MDNA19, have superior PK properties, lack CD25 binding to improve safety and reduce immune suppression, potently stimulate effector T cells, reverse natural killer (“NK”) cell exhaustion and act with exceptional synergy when combined with checkpoint inhibitors and other therapeutic modalities.

Although MDNA19 was initially identified as the Company’s lead IL-2 candidate, a pilot non-human primate (“NHP”) study comparing MDNA11 with MDNA19 demonstrated that the former had better PK and PD features. Medicenna is therefore advancing the clinical development of MDNA11 as it is a more promising molecule and has been selected as the lead IL-2 Superkine candidate. Medicenna has initiated the Phase 1/2 ABILITY Study (A Beta-only IL-2 ImmunoTherapY Study with MDNA11 (the “ABILITY Study”)). MDNA19 remains relevant for Medicenna as it provides unique design features in the development of our BiSKITs™ platform. Our BiSKITs™ platform allows us to develop designer Superkines by fusing them to other proteins, antibodies, cytokines or other Superkines resulting in two distinct but synergistic functions into one molecule: a BiSKIT™.

Complementing our MDNA109 platform is bizaxofusp, Medicenna’s Empowered Superkine, for the treatment of recurrent glioblastoma (“rGBM”), the most common and uniformly fatal form of brain cancer. Bizaxofusp is a fusion of a circularly permuted version of IL-4, fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin (“PE”), and is designed to preferentially target tumor cells that over-express the interleukin 4 receptor (“IL-4R”). Bizaxofusp has been studied in five clinical trials in 132 patients, including 112 patients with rGBM, the results of which support our belief that it has superior efficacy when compared to the current standard of care (“SOC”). Bizaxofusp has secured Orphan Drug Status from the FDA and the European Medicines Agency (“EMA”) as well as “Fast Track” designation from the FDA for the treatment of rGBM and other types of high-grade glioma. We continue to pursue a strategic partnership to facilitate bizaxofusp’s further development and commercialization.

## **ACHIEVEMENTS & HIGHLIGHTS**

The following are the achievements and highlights for the three months ended June 30, 2023 through to the date hereof:

On April 17, 2023, we announced new preclinical data characterizing the Interleukin 13 (“IL-13”) Superkines, MDNA132 and MDNA213 (an improved version of MDNA132), and a series of IL-13 BiSKITs were presented at the Annual Meeting of the American Association for Cancer Research (“AACR”), held in Orlando, Florida. The results demonstrated that the IL-13 Superkines represent a versatile platform for engineering the next generation of precision immunotherapies for many immune-resistant IL-13R $\alpha$ 2 expressing tumors.

On April 25, 2023, the Company received an extension notice (the “Extension Notice”) from Nasdaq granting the Company’s request for a 180-day extension to regain compliance with the minimum bid requirement (“Minimum Bid Requirement”) of US\$1.00 per share under the Nasdaq Listing Rule 5450(a)(1). The Company has until October 23, 2023 to meet the requirement. The Extension Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company’s operations are not affected by the receipt of the Extension Notice.

On July 20, 2023, Dr. Fahar Merchant, President and CEO of Medicenna, was invited to present and participate in a Research Roundtable organized by the National Brain Tumor Society. The event, entitled, Use of External Control Data in Brain Tumor Clinical Trials was held in Washington, D.C..

Subsequent to the quarter end, Medicenna announced that the Safety Review Committee has cleared Cohort 6 dose of 120mg/Kg, Q2W, in the Phase 1 portion of the MDNA 11 ABILITY Study as there were no protocol defined dose-limiting toxicities

## **FINANCING UPDATE**

### **Three months ended June 30, 2023**

2023 At-The-Market Facility

On February 17, 2023, the Company entered into a sales agreement with Oppenheimer & Co. Inc., acting as sales agent (the “2023 ATM Agreement”), pursuant to which the Company may, from time to time sell, through at-the-market offerings on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US\$10.0 million (the “2023 ATM Facility”). During the three months ended June 30, 2023, the Company did not issue any Common Shares pursuant to the 2023 ATM Facility.

#### Warrants

During the three months ended June 30, 2023, no warrants were exercised.

On July 17, 2023, the expiry date of an aggregate of 1,549,052 outstanding warrants issued on October 17, 2019 as part of a public offering of an aggregate of 5,307,693 units of the Company, was extended from July 17, 2023 to October 17, 2024.

#### **Three months ended June 30, 2022**

##### 2020 At-The-Market Facility

On December 30, 2020, the Company entered into a sales agreement with SVB Leerink LLC acting as sales agent, pursuant to which the Company may, from time to time sell, through at-the-market (“ATM”) offering on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US\$25.0 million, which expired on December 30, 2022.

#### Warrants

During the three months ended June 30, 2022, no warrants were exercised.

#### **NASDAQ LISTING**

On October 25, 2022, the Company received a notice from the Nasdaq Stock Market LLC (the “Nasdaq Notice”), stating that the Company was not in compliance with the Minimum Bid Requirement under the Nasdaq Listing Rule 5450(a)(1) based upon the closing bid price of the Common Shares for the 30 consecutive business days prior to the date of the Nasdaq Notice. The Nasdaq Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company’s operations currently remain unaffected by the receipt of the Nasdaq Notice.

On April 25, 2023, the Company received the Extension Notice from Nasdaq granting the Company’s request for a 180-day extension to regain compliance with the Minimum Bid Requirement. The Company has until October 23, 2023 to regain compliance with the Minimum Bid Requirement. The Extension Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company’s operations are not affected by the receipt of the Extension Notice.

The Company is closely monitoring the closing bid price of its Common Shares and is considering its options to regain compliance with the Minimum Bid Requirement under the Nasdaq Listing Rules. The Extension Notice does not have any impact on the Company’s TSX listing.

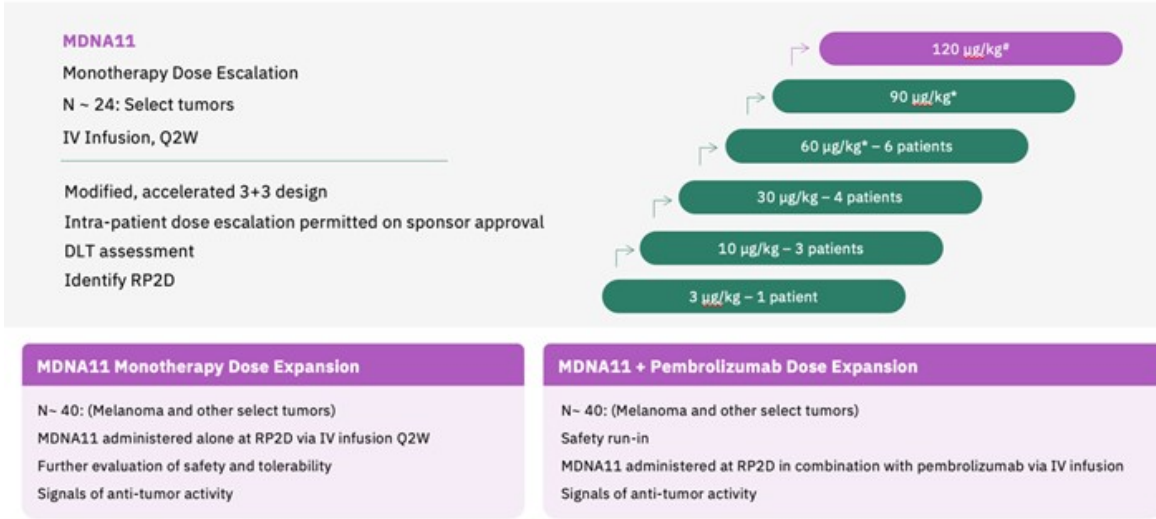
#### **RESEARCH & DEVELOPMENT UPDATE**

##### Superkine Platform

##### MDNA11

On September 14, 2021, we announced that we had dosed the first patient in a Phase 1/2 clinical study of MDNA11. Medicenna’s Phase 1/2 ABILITY Study is designed to assess the safety, PK, PD, and anti-tumor activity of various doses of MDNA11 administered intravenously every two weeks, in patients with advanced solid tumors. The basket, dose finding study includes a dose escalation phase followed by a dose expansion phase with both an MDNA11 monotherapy arm as well as a combination arm designed to evaluate MDNA11 with KEYTRUDA®. The study will include patients with melanoma and renal cell carcinoma where Proleukin is known to have clinical activity, as well as cluster of other tumor types in order to explore the pan-tumor potential of MDNA11. The study also permits alternative dosing schedules, as well as options for intra-patient dose escalation. The ABILITY Study is currently enrolling patients at clinical sites in Australia, Canada and the United States.

# Phase 1/2 ABILITY Study Schema: Enrolling Dose Level 6



\*Step-up dosing utilized: two priming doses of 30µg/kg given before target dose.  
\*Step-up dosing utilized: 30, 60, and 90 µg/kg priming doses given before target dose.

On September 13, 2022 we announced that we had entered into the CTCSA with Merck to evaluate MDNA11 in combination with KEYTRUDA<sup>®</sup> (pembrolizumab), Merck's anti-PD-1 (programmed death receptor-1) therapy, in the ongoing Phase 1/2 ABILITY Study. Under the terms of the CTCSA, Medicenna will sponsor the study and Merck will supply KEYTRUDA<sup>®</sup>. The two companies will establish a Joint Development Committee to optimally advance the study's combination arm.

In the dose escalation portion of the ABILITY Study, MDNA11 is administered intravenously, as a monotherapy, once every two weeks to patients with advanced solid tumors. The trial's first two cohorts evaluated MDNA11 doses  $\leq 10 \mu\text{g}/\text{kg}$ . The trial's third cohort was administered a dose of  $30 \mu\text{g}/\text{kg}$ . Patients in the fourth and fifth dose escalation cohorts receive two  $30 \mu\text{g}/\text{kg}$  "priming" doses of MDNA11 before stepping up to receive fixed doses of 60 and  $90 \mu\text{g}/\text{kg}$ , respectively.

Key data from patients enrolled in the trial's four initial dose escalation cohorts include:

#### Demographics:

- Patients enrolled in the study to date (N=14) have failed up to four lines of prior systemic therapy.
- 11 of 14 patients have relapsed, were not tolerant to or did not respond to at least one prior immunotherapy with a checkpoint inhibitor.

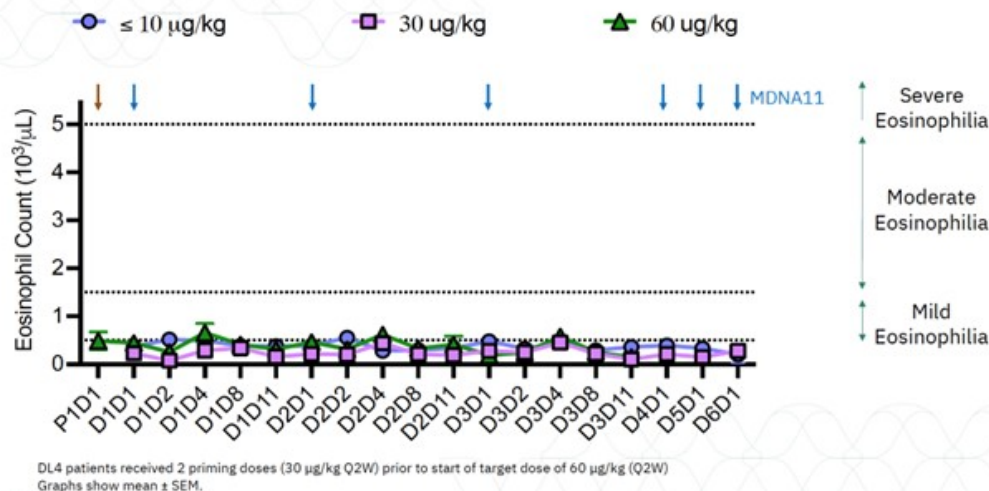
#### Safety:

- MDNA11 treatment in Cohort 4 (comprised of two step-up doses of  $30 \mu\text{g}/\text{kg}$  followed by fixed doses of  $60 \mu\text{g}/\text{kg}$  every two weeks) was not associated with any dose-limiting toxicities.
- The Safety Review Committee approved dose escalation for Cohort 5 to the  $90 \mu\text{g}/\text{kg}$  dose every two weeks following two priming doses at  $30 \mu\text{g}/\text{kg}$ .



- Subsequent to the quarter end, the Safety Review Committee approved dose escalation for Cohort 6 to a target dose of 120 µg/kg dose every two weeks following three priming doses at 30, 60 and 90 µg/kg.
- Significant increases in eosinophil count from baseline have not been observed with MDNA11 treatment. Extremely high eosinophil count is associated with vascular leak syndrome which is a known side effect of high-dose recombinant human IL-2 (Proleukin®).

## No Evidence of Eosinophilia Associated with VLS

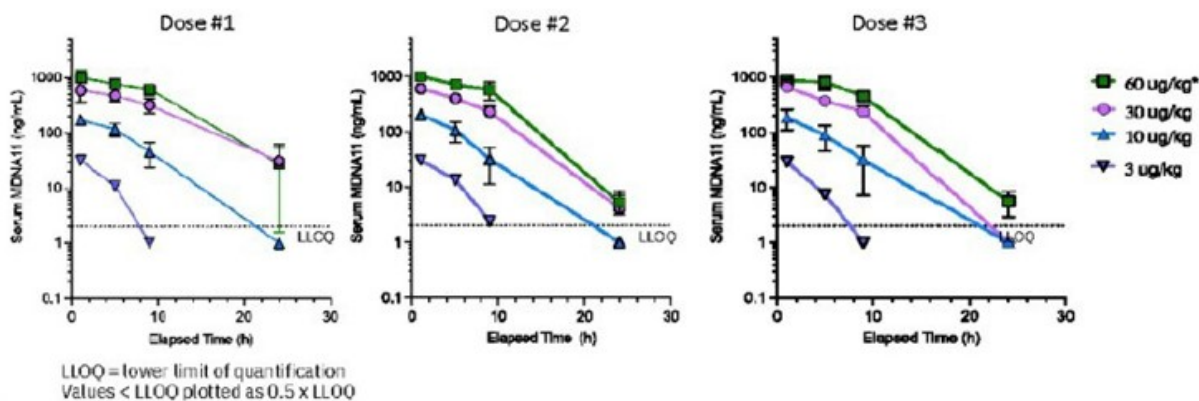


### Pharmacokinetics:

- The pharmacokinetic data from the first three cohorts demonstrated similar trends following each of three repeat doses which suggests lack of immunogenicity or insignificant levels of anti-drug-antibodies.
- Dose dependent increase in the  $C_{max}$  and Area Under the Curve were also observed.

## MDNA11 PK Profile in Cancer Patients

- MDNA11 PK exhibits saturable rapid clearance and a slower parallel linear clearance process
- Dose-dependent increase in exposure ( $C_{max}$  and  $AUC_{(0-24)}$ )
- Variability is low between Dose 1-3, suggesting that there is no clinically significant ADA response

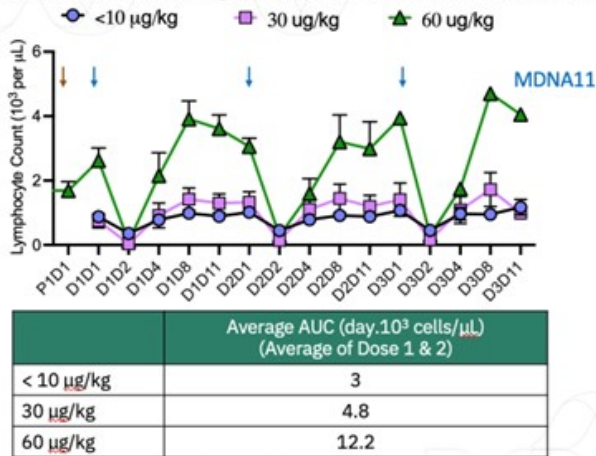


**Pharmacodynamics:**

- In addition to dose-dependent increases in lymphocyte counts and lymphocyte kinetics, MDNA11 preferentially expanded anti-cancer NK and CD8<sup>+</sup> T cells without stimulating proliferation of pro-tumor Treg cells.

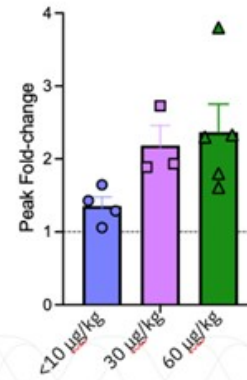
## MDNA11 Induced Lymphocyte Expansion

➤ Expansion of circulating lymphocytes irrespective of baseline count



DL4 patients received 2 priming doses (30 μg/kg Q2W) prior to target dose (60 μg/kg Q2W)  
Graph shows mean ± SEM.  
AUC measured as area between minimum lymphocyte count values

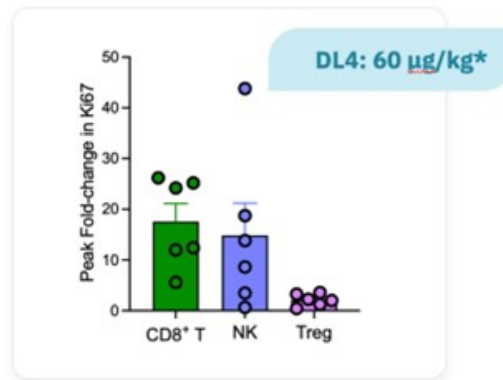
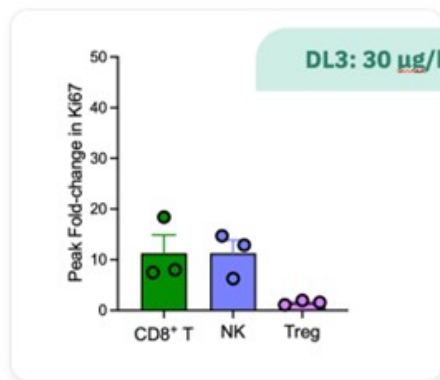
### Peak Fold-Change



Peak fold-change relative to baseline.  
Graph shows mean ± SEM  
For < 10 μg/kg and 30 μg/kg, peak data for Dose 1  
For 60 μg/kg, peak data for Target Dose 1

## MDNA11 Stimulated CD8<sup>+</sup> T and NK Cell Proliferation (Ki67)

No increase in Tregs



Peak fold-change relative to baseline. Proliferation assess based on Ki67 expression  
\*Patients received 2 priming 30 μg/kg doses (Q2W) prior to target dose of 60 μg/kg. Data for 30 μg/kg cohort are based on 3<sup>rd</sup> administration for comparison.  
Dose 3 data available for 3 of 4 patients.

**Anti-tumor Activity:**

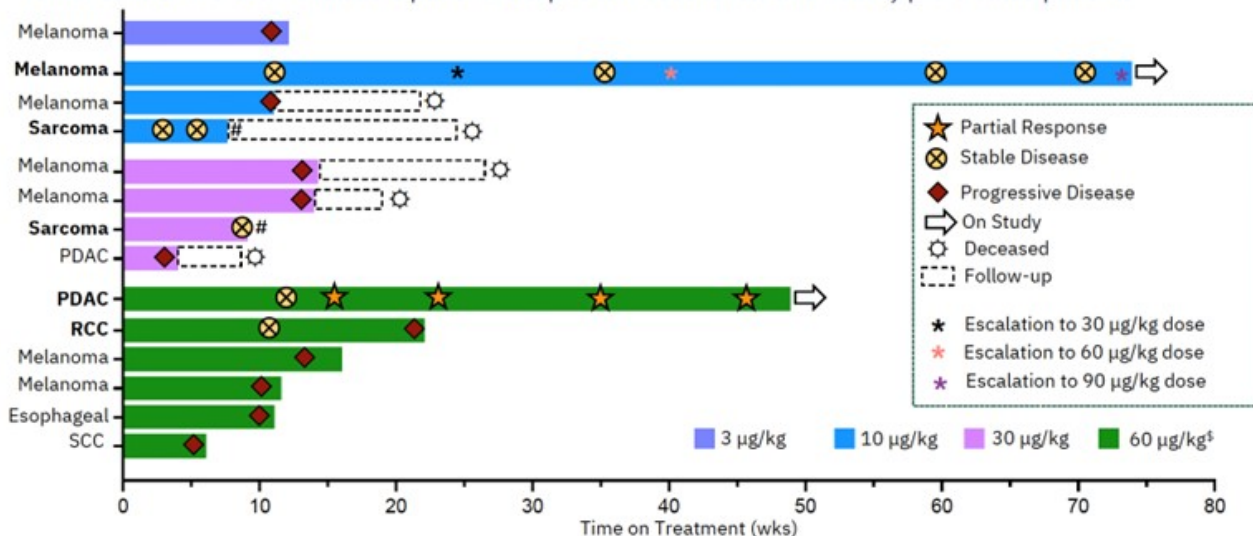
- Of the 14 evaluable patients with at least one on-treatment imaging scan, five patients achieved tumor control (defined as stable disease, partial response, or complete response as per RECIST 1.1) during the monotherapy dose-escalation portion of the MDNA11 ABILITY Study as follows:

1. Metastatic Leiomyosarcoma Stage IV (Dose Level 2 @ 10 μg/kg); stable disease.
2. Metastatic Melanoma Grade 4C (initially enrolled at Dose Level 2 @ 10 μg/kg Q2W with subsequent intra-patient dose escalations to Dose Level 3 @30 μg/kg and Dose Level 4 @60 μg/kg), stable disease.

3. Metastatic Sarcoma Stage IV (Dose Level 3 @ 30 µg/kg), stable disease
4. Pancreatic Ductal Adenocarcinoma (PDAC) Stage IV (Dose Level 4 @ 60 µg/kg following 2 priming doses of 30 µg/kg), confirmed partial response.
5. Non-clear cell 3L renal cell carcinoma patient (Dose Level 4 @ 60 µg/kg following 2 priming doses of 30 µg/kg), stable disease.

## Treatment Duration and Tumor Response

Tumor control in 5 of 14 evaluable patients despite low dose levels and heavily pre-treated patients



# Target lesions exhibit SD; treatment ended due to clinical progression or withdrawal; \$ Patients received 2 x 30 µg/kg (Q2W) prior to target dose of 60 µg/kg

As announced subsequent to the quarter end, the Safety Review Committee has cleared the final (sixth) cohort of the dose escalation portion of the MDNA11 Phase 1/2 ABILITY Study and continues to follow-up with patients in the lower dose escalation cohorts. It is expected that in calendar Q3 2023, the study will commence enrolling patients in the dose-expansion phase (Phase 2) of the ABILITY Study. The dose expansion phase will evaluate both MDNA11 monotherapy as well as MDNA11 in combination with KEYTRUDA®.

An update on PK, PD, safety and efficacy data from the six cohorts of the dose-escalation portion of the Phase 1/2 ABILITY Study, including initial anti-tumor activity data from the fifth and sixth dose escalation cohorts, is expected in calendar Q3 2023. The Phase 2 monotherapy dose expansion is expected to commence in calendar Q3 2023, with a clinical update from the Phase 2 monotherapy dose expansion expected in calendar Q4 2023, and the combination arm is expected to initiate in calendar Q4 2023. These timelines have been delayed from those originally disclosed due to additional dose escalation cohorts as well as implementation of step-up-dosing which requires extra time to reach the target dose, essentially extending the duration of the dose-limiting toxicity evaluation period from 4 weeks from first exposure to up to 10 weeks. If required, additional evaluation of MDNA11 dosing regimen (shorter duration and/or more rapid step-up to target dose) and schedule (Q3W instead of Q2W) for monotherapy and combination settings may also occur during the MDNA11 dose expansion portion of the study.

### IL-4 and IL-13 Superkines

Medicenna's IL-4 and IL-13 Superkines, licensed from Stanford, are engineered versions of wild type cytokines which possess enhanced affinity and selectivity for either the Type 1 or Type 2 IL4 receptors or dedicated IL13 receptors such as IL13Ra2. This selectivity is achieved through mutations of the IL-4 or IL-13 cytokines to enhance affinity for binding to specific IL4R or IL13R subunits. Additional mutations have also been engineered to modulate their bioactivity, resulting in Superkines with enhanced signaling (super-agonists) or the ability to block signaling (super-antagonists).

### ***MDNA413: An IL-4/IL-13 Dual Super-Antagonist***

One promising IL-13 Superkine antagonist is MDNA413. Compared to wild type IL-13, MDNA413 has been engineered to have 2,000-fold higher selectivity for the Type 2 IL4R and which potently blocks IL-4 and IL-13 signaling (Moraga et al., 2015). Blocking of Type 2 IL4R by MDNA413 may be relevant not only for targeting solid tumors that overexpress this receptor, but also the Th2 biased tumour microenvironment, which shields the cancer from the immune system.

We believe that MDNA413's ability to block IL-4/IL-13 signaling has the potential to address a significant unmet medical need for effective therapies against immunologically cold tumors which are often resistant to checkpoint inhibitors and other immunotherapeutic agents due to their immunosuppressive tumor microenvironment ("TME"). MDNA413 has also been fused with MDNA19 (a long acting Fc-IL2 Superkine) as a novel BiSKIT<sup>TM</sup> candidate.

### ***MDNA132 and MDNA213: High Affinity Cancer-Specific Targeting Ligands***

Another promising IL-13 Superkine is MDNA132, and its variant, MDNA213. Unlike MDNA413, MDNA132 and MDNA213 are IL-13 ligands that have been engineered to increase affinity for IL13Ra2 overexpressed on certain solid tumors while exhibiting sharply decreased affinity for IL13Ra1. Medicenna believes MDNA132 and MDNA213 has superior targeting compared to other IL-13 variants in development, and is an attractively differentiated targeting domain for (a) cell-based immunotherapies (such as those using chimeric antigen receptors or CARs); (b) potent payloads used in antibody-drug conjugates ("ADC"); (c) targeted fusion toxins or (d) radiopharmaceuticals. Development timelines for MDNA132 and MDNA213 have yet to be established. MDNA132 and/or MDNA213 are also being evaluated as a potential fusion protein in our BiSKITs<sup>TM</sup> platform.

On April 17, 2023, we announced that new preclinical data characterizing the Interleukin 13 ("IL-13") Superkines, MDNA132 and MDNA213, and a series of next generation IL-13 Superkine therapies, were presented at the AACR Annual Meeting, which took place in Orlando, Florida, from April 14 to 19, 2023. The AACR poster included data demonstrating that both MDNA132 and MDNA213 exhibit highly selective binding to the IL-13 decoy receptor (IL-13Ra2) and, in a murine model, selectively accumulate in the TME for several days. MDNA132 and MDNA213 exhibit high affinity and selectivity for the IL13Ra2, which is overexpressed in various tumors such as pancreatic, prostate, bladder, colorectal, breast and lung cancer but minimally expressed in healthy tissues. High expression of IL13Ra2 in these tumors is generally associated with more aggressive cancer and poor survival outcomes.

Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs<sup>TM</sup> platform. Additional funding will be necessary to advance one or more of these product candidates into clinical trials.

### **BiSKITs<sup>TM</sup> (Bi-functional SuperKine ImmunoTherapies) Platform**

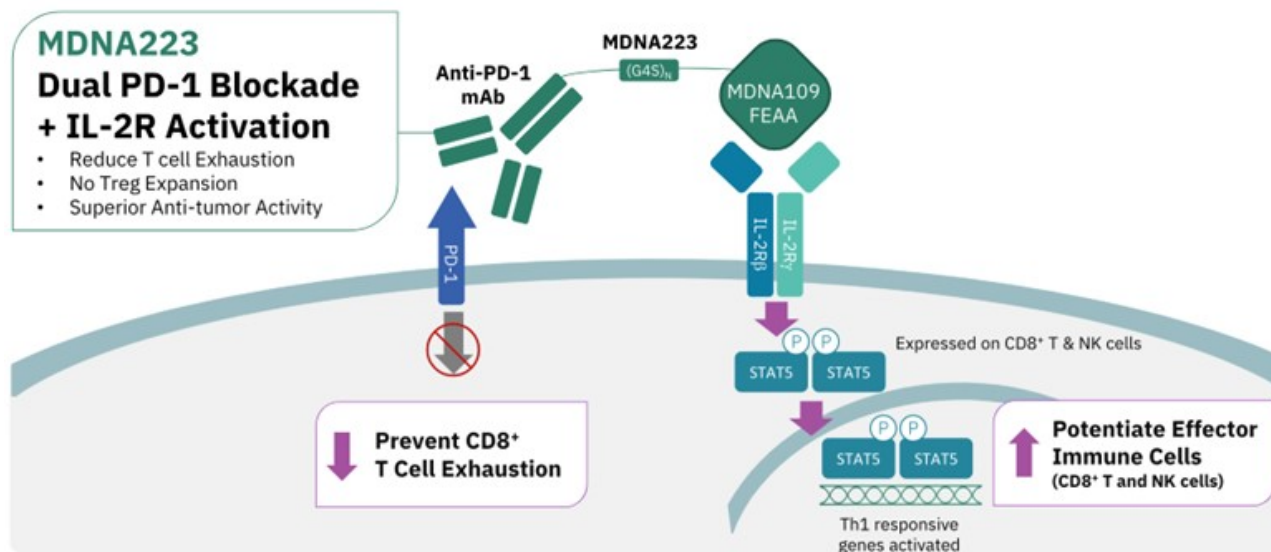
Our BiSKITs<sup>TM</sup> platform allows us to develop designer Superkines by fusing them to other proteins, checkpoint inhibitors, antibodies or cytokines to our IL-2, IL-4 and/or IL-13 Superkines in order to combine two distinct and yet synergistic mechanisms of action into one molecule: a BiSKIT<sup>TM</sup>.

On April 8, 2022, we announced new preclinical data highlighting the potent anti-tumor efficacy of the next-generation BiSKIT<sup>TM</sup>, anti-PD1-MDNA109FEAA, in an electronic poster at the AACR Annual Meeting. BiSKITs can target cancers where other immunotherapies have failed to be effective. One example of this is MDNA223, an IL-2 Superkine fused to a checkpoint inhibitor (anti-PD1). MDNA223 is a BiSKIT designed to activate cancer killing immune cells via the IL-2 receptor while simultaneously preventing their exhaustion through the validated method of blocking PD-1 signaling. Combining these two functions into a single molecule allows us to simultaneously engage both of these important targets on the same immune cells (also known as cis-binding).

On September 22, 2022, *in vitro* data presented at Cytokines 2022 demonstrated that MDNA223's potency was similar to that of a control anti-PD1 antibody while displaying high-affinity for IL-2 receptor beta ("IL-2Rβ") and no binding to IL-2 receptor alpha ("IL-2Rα"). This enhanced IL-2Rβ selectivity resulted in potent and preferential stimulation of anti-cancer CD8+ T cells over pro-tumor Treg cells. *In vivo* murine data showed MDNA223 exhibiting a prolonged PD response extending beyond the duration of PK exposure.

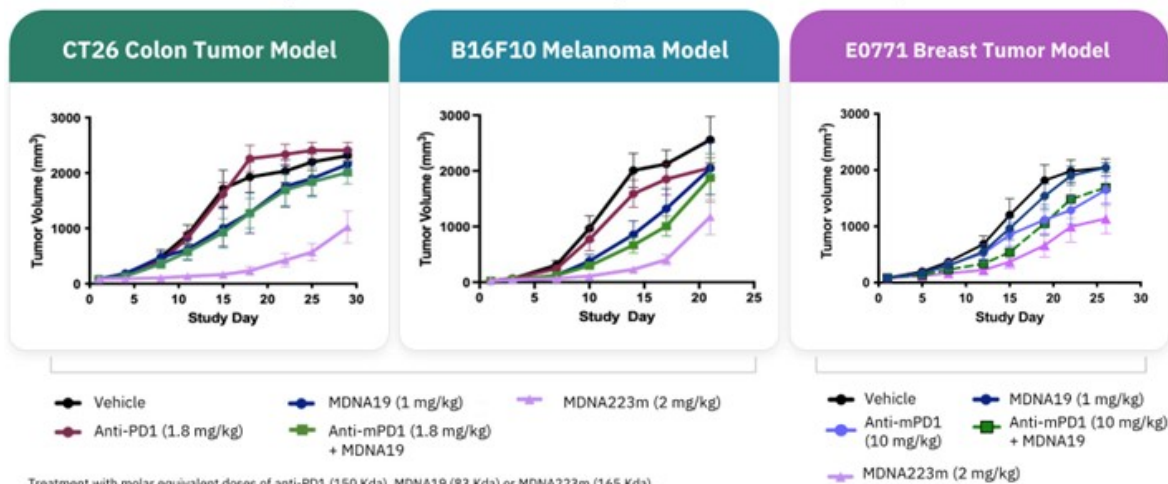
## MDNA223: Anti-PD1-IL-2 Superkine BiSKIT

Synchronized cis-binding for PD-1 blockade and IL-2R activation on same CD8+ T or NK cell



Data from murine tumor models of colon, skin and breast cancer using a mouse version of MDNA223 (i.e MDNA223m) showed dose-dependent and statistically significant improvements in efficacy compared to co-administration of the anti-PD-1 antibody and IL-2 super-agonist (MDNA19) at equivalent molar doses, demonstrating the advantage of exploiting the BiSKIT's cis-binding potential. These data demonstrate the therapeutic synergy resulting from the BiSKIT's ability to concurrently target PD1 and the IL-2 receptor on the same immune cells (*cis-binding* approach).

MDNA223m showed higher levels of anti-tumor activity than co-administration in pre-clinical studies



Treatment with molar equivalent doses of anti-PD1 (150 Kda), MDNA19 (83 Kda) or MDNA223m (165 Kda).  
IP treatment QWx2 (CT26 and E0771) and QWx3 (B16F10)  
Avg tumor size at initiation of dosing: 127 mm<sup>3</sup> (CT26), 80 mm<sup>3</sup> (E0771) or 30 mm<sup>3</sup> (B16F10)



Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs™ platform.

**Bizaxofusp (formerly MDNA55)**

Bizaxofusp has been studied in five clinical trials in 132 patients, including 112 patients with rGBM, suggesting potentially superior efficacy when compared to the current SOC. The Company has secured Orphan Drug Status from the FDA and the EMA as well as “Fast Track” designation from the FDA.

A Phase 2b clinical trial with bizaxofusp was completed in a multi-center, open-label, single-arm study in patients with first or second recurrence or progression of GBM after surgery or radiotherapy ± adjuvant therapy or other experimental therapies. Subsequently, a separate blinded study that collected rGBM survival and prognostic data from 81 patients, that had contemporaneously received treatment at major clinical centres using current SOC, were used to establish a matched External Control Arm (“ECA”). The blinded survival data from the matched ECA (established by matching with the bizaxofusp treated population based on 11 different prognostic factors using propensity scoring methods) were then used as a control arm versus survival data from the Phase 2b bizaxofusp trial.

On September 29, 2020, Medicenna had an “End of Phase 2” meeting with the FDA to discuss future development and commercialization of bizaxofusp, if approved for rGBM. On October 15, 2020, we announced that the FDA agreed that we could conduct an innovative open-label hybrid Phase 3 trial that allows use of a substantial number of patients (two-thirds) from a matched ECA to support marketing authorization of bizaxofusp for rGBM. Medicenna is pursuing strategic partnerships to assist with additional clinical development of bizaxofusp, as well as preparing the program for commercialization and its subsequent launch in various countries where marketing authorization has been granted.

**SELECTED FINANCIAL INFORMATION**

All tabular amounts below are presented in thousands of Canadian dollars, except for per share amounts.

	<b>Three months ended June 30, 2023</b>	Three months ended June 30, 2022
	\$	\$
General and administration	1,647	1,919
Research and development	2,812	2,411
Change in fair value of warrant derivative (gain)	(1,747)	-
Finance (income)	(346)	(30)
Foreign exchange (gain) loss	496	(145)
Net (loss)	(2,862)	(4,155)
Basic and diluted loss per share	(0.04)	(0.07)
Total assets	31,546	20,140
Total liabilities	4,646	2,147

We have not earned revenue in any of the previous fiscal years, other than income from interest earned on our cash and cash equivalents.

For the three months ended June 30, 2023, we reported a net loss of \$2.9 million (\$0.04 loss per share), compared to a net loss \$4.2 million (\$0.07 loss per share) for the three months ended June 30, 2022. The decrease in net loss for the three months ended June 30, 2023, compared with the three months ended June 30, 2022, was partially a result of decreased general and administration expenditures related to a reduction in directors and officers liability insurance premiums. In addition, a non-cash change in the fair value of the warrant derivative (gain) of \$1.7 million for the three months ended June 30, 2023 contributed to the reduction in net loss. This was partially offset by an increase in research and development expenditures for the three months ended June 30, 2023, compared to June 30, 2022, which is primarily attributable to increased licensing and patent legal fees.

Cash utilized in operating activities for the three months ended June 30, 2023 was \$3.5 million, compared to the three months ended June 30, 2022 of \$2.3 million. The increase in cash utilized in the three months ended June 30, 2023 compared to the three months ended June 30, 2022 is primarily as a result of increased research and development expenses and changes in working capital.

## RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED JUNE 30, 2023

### Research and Development (“R&D”) Expenses

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>Research and Development Expenses</b>		
Chemistry, manufacturing, and controls	496	495
Regulatory	27	28
Discovery and pre-clinical	517	470
Clinical	697	630
Salaries and benefits	500	514
Licensing, patent, legal fees and royalties	415	161
Stock based compensation	135	111
Other research and development expenses	25	2
	<b>2,812</b>	<b>2,411</b>

R&D expenses of \$2.8 million were incurred during the three months ended June 30, 2023, compared with \$2.4 million incurred in the three months ended June 30, 2022.

The increase in R&D expenses in the three months ended June 30, 2023, compared to the three months ended June 30, 2022 is primarily attributable to:

- increased licensing and patent legal fees, related to timing as well as intellectual property activities in the current year quarter;
- higher clinical costs related to the MDNA11 ABILITY Study in the current year period.

### General and Administrative (“G&A”) Expenses

	Three months ended June 30, 2023	Three months ended June 30, 2022
	\$	\$
<b>General and Administration Expenses</b>		
Depreciation expense	1	1
Stock based compensation	160	295
Facilities and operations	152	124
Public company expenses	1,070	1,277
Salaries and benefits	264	222
	<b>1,647</b>	<b>1,919</b>

G&A expenses of \$1.6 million were incurred during the three months ended June 30, 2023, compared with \$1.9 million during the three months ended June 30, 2022.

The decrease in G&A expenses primarily relates to a reduction in directors and officers liability insurance premiums and a decrease in stock-based compensation due to timing of option in the current year period, compared to prior year period.

#### SUMMARY OF QUARTERLY FINANCIAL RESULTS:

	Jun. 30 2023	Mar. 31 2023	Dec. 31 2022	Sep. 30 2022	Jun. 30 2022	Mar. 31 2022	Dec. 31 2021	Sep. 30 2021
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	-	-	-	-	-	-	-	-
General and administration	1,647	1,385	1,976	1,719	1,919	1,936	1,990	1,964
Research and development	2,812	1,586	2,945	2,362	2,411	1,191	2,907	6,269
Change in fair value of warrant derivative	(1,747)	1,200	(3,747)	(1,800)	-	-	-	-
Net loss	(2,862)	(3,856)	(1,141)	(896)	(4,155)	(3,206)	(4,807)	(8,178)
Basic and diluted loss per share	(0.04)	(0.06)	(0.02)	(0.01)	(0.07)	(0.06)	(0.09)	(0.15)
Total assets	31,546	36,446	38,174	42,560	20,140	23,456	26,107	30,093
Total liabilities	4,646	6,960	4,949	8,644	2,147	2,621	2,351	5,431

R&D expenses fluctuate quarter over quarter based on activities ongoing during that period. The higher expenditures for the quarter ended September 30, 2021 were primarily related to one-time higher CMC costs, associated with the scale-up GLP and GMP manufacturing of MDNA11 which was predominantly completed in the quarter ended September 30, 2021. Refundable tax credits of \$0.7 million contributed to a decrease in R&D expenses during the quarter ended March 31, 2022 and during the quarter ended March 31, 2023. R&D expenses increased in the quarter ended December 31, 2022, and the quarter ended June 30, 2023, due to timing of activity in the MDNA11 ABILITY Study.

G&A expenses have remained relatively consistent quarter over quarter up to June 30, 2022. From the quarter ended September 30, 2022 onwards, G&A expenses decreased as directors and officers' liability insurance annual premium decreased on renewal.

There was a non-cash change in the fair value of the warrant derivative (gain) loss from the quarter ended September 30, 2022 onwards. The fair value of the warrant derivative will fluctuate quarterly due to volatility of share price, expected dividend yield and expected risk-free interest rate.

#### LIQUIDITY AND CAPITAL RESOURCES

Since inception, the Company has devoted its resources to funding R&D programs, including securing intellectual property rights and licenses, conducting discovery research, manufacturing drug supplies, initiating preclinical and clinical studies, submitting regulatory dossiers and providing administrative support to R&D activities, which has resulted in an accumulated deficit of \$83.8 million as of June 30, 2023. With current revenues only consisting of interest earned on excess cash, cash equivalents and marketable securities, losses are expected to continue while the Company's R&D programs are advanced.

We currently do not earn any revenues from our product candidates and are therefore considered to be in the development stage. As required, the Company will continue to finance its operations through the sale of equity or pursue non-dilutive funding sources available to the Company in the future. The continuation of our research and development activities for bizaxofusp, MDNA11 and the BiSKITs™ platform and the commercialization of bizaxofusp is dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and revenues from strategic partners. We have no current sources of revenues from strategic partners.



Management has forecasted that the Company's current level of cash will be sufficient to execute its current planned expenditures for more than the next 12 months without further financing. The Company's cash is expected to fund operations through calendar Q3 2024. The Company has the ability to reduce or eliminate planned expenditure to extend its operating runway if it is unable to obtain additional financing when required.

### **CASH POSITION**

At June 30, 2023, we had a cash and cash equivalents balance of \$29.6 million, compared to \$33.6 million at March 31, 2023. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at June 30, 2023 was \$28.3 million (March 31, 2023 - \$32.5 million). These funds are expected to provide the Company with sufficient capital to execute its current planned expenditures through the completion of the ABILITY Study and through calendar Q3 2024 based on its current plans and projections.

On February 17, 2023, the Company entered into the 2023 ATM Agreement with Oppenheimer & Co. Inc., acting as sales agent for our 2023 ATM Facility of up to US\$10.0 million. We plan to use the net proceeds of the 2023 ATM Facility for general corporate purposes including, but not limited to working capital expenditures, research and development expenditures, and clinical trial expenditures. As of June 30, 2023, no Common Shares have been sold under the 2023 ATM Facility. As of June 30, 2023, US\$10.0 million remained available under the 2023 ATM Facility.

We do not expect to generate positive cash flow from operations for the foreseeable future due to additional R&D expenses, including expenses related to drug discovery, preclinical testing, clinical trials, chemistry, manufacturing and controls and operating expenses associated with supporting these activities. It is expected that negative cash flow from operations will continue until such time, if ever, that we receive marketing authorization to commercialize any of our product candidates under development and/or royalty or milestone revenue from any such products should they exceed our expenses.

### **CONTRACTUAL OBLIGATIONS**

#### ***CPRIT Assistance***

In February 2015, the Company received notice that it had been awarded a grant by the CPRIT whereby the Company was eligible to receive up to US\$14.1 million on eligible expenditures over a three-year period related to the development of the Company's Phase 2b clinical program for bizaxofusp. As of March 31, 2022, all of the US\$14.1 million had been received and the grant with CPRIT was complete.

Under the terms of the grant, the Company is required to pay a royalty to CPRIT, comprised of 3-5% of revenues on net sales of bizaxofusp until aggregate royalty payments equal 400% of the grant funds received at which time the ongoing royalty will be 0.5% of revenues. At this time the royalty is not probable and therefore no liability has been recorded. In addition, the Company must maintain a presence in Texas for three years following completion of the grant.

#### ***Refundable tax credits***

In July 2023, the Company received \$0.7 million through our Australian R&D incentive program relating to the year ended March 31, 2023 (March 31, 2022: \$0.7 million). The amount receivable was recorded as a reduction in research and development expenses in the year ended March 31, 2023.

### Intellectual Property

The Company has entered into various license agreements with respect to accessing patented technology. In order to maintain these agreements, the Company is obligated to pay certain costs based on timing or certain milestones within the agreements, the timing of which is uncertain. These costs include ongoing license fees, patent prosecution and maintenance costs, royalty and other milestone payments. As of June 30, 2023, the Company is obligated to pay the following:

- given the current development plans and expected timelines of the Company, it is assumed that project milestones of US\$0.3 million will be due in the next five years; and
- project milestone payments, assuming continued success in the development programs, of uncertain timing totaling US\$2.0 million and an additional US\$2.0 million in sales milestones.

As part of these license agreements, the Company has committed to make certain royalty payments based on net sales to the FDA, NIH and Stanford.

### Future commitments

As of June 30, 2023, we have the following obligations to make future payments, representing contracts and other commitments that are known and committed:

Contractual obligations	Payments Due by Period			
	Less than 1 year	1-3 years	3-5 years	Total
Patent licensing costs, minimum annual royalties per license agreements	\$ 463	\$ 1,046	\$ -	\$ 1,509

The Company cannot reasonably estimate future royalties which may be due upon the marketing authorization of bizaxofusp or MDNA11.

### OFF-BALANCE SHEET ARRANGEMENTS

The Company has no material undisclosed off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on our results of operations, financial condition, revenues or expenses, liquidity, capital expenditures or capital resources that is material to investors.

### TRANSACTIONS WITH RELATED PARTIES

Key management personnel, which consists of the Company's officers (Dr. Fahar Merchant, President and Chief Executive Officer, Ms. Elizabeth Williams, Chief Financial Officer, and Ms. Rosemina Merchant, Chief Development Officer) and directors, received the following compensation for the following years:

	Three months ended June 30, 2023	Three months ended June 30, 2022
Salaries and wages	\$ 253	\$ 253
Board fees	78	76
Stock option expense	243	342
	574	671

As at June 30, 2023, the Company had trade and other payables in the normal course of business, owing to directors and officers of \$0.1 million (2022: \$0.1 million) related to accrued bonuses, board fees and accrued vacation.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The significant accounting policies of the Company are described in note 2 of the Annual Financial Statements and available on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com) and included in the Annual Report on Form 20-F filed on EDGAR at [www.sec.gov](http://www.sec.gov).

Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The determination of estimates requires the exercise of judgement based on various assumptions and other factors such as historical experience and current and expected economic conditions. Actual results could differ from those estimates. Critical judgements in applying the Company's accounting policies are detailed in the Annual Financial Statements, filed on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com) and included in the Annual Report on Form 20-F filed on EDGAR at [www.sec.gov](http://www.sec.gov).

## FINANCIAL INSTRUMENTS

Financial instruments are defined as a contractual right or obligation to receive or deliver cash on another financial asset. The Company recognizes financial instruments based on their classification. Depending on the financial instrument's classification, changes in subsequent measurements are recognized in net loss or other comprehensive loss.

A description of the financial instruments, their fair value and risk management is included in notes 2, 5 and 6 of the Annual Financial Statements, filed on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com) and included in the Annual Report on Form 20-F filed on EDGAR at [www.sec.gov/edgar](http://www.sec.gov/edgar).

## 2020 PUBLIC OFFERING AND USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised as part of the 2020 public offering of Common Shares (the "2020 Public Offering"), which initially closed on March 17, 2020, along with amounts actually expended. Following completion of the 2020 Public Offering, Medicenna selected MDNA11 as its lead IL-2 candidate over MDNA19 to progress to the clinic and, as such, proceeds from the 2020 Public Offering, which were initially allocated to the development of MDNA19, have been re-directed to the development of MDNA11 in the same proportions. As of June 30, 2023, the following expenditures had been incurred (in thousands of Canadian dollars):

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Preclinical development	\$ 3,300	\$ 3,300	-	-
Manufacturing of clinical batch	\$ 4,400	\$ 4,400	-	-
Clinical development	\$ 13,150	\$ 10,152	-	\$ 2,998
General corporate and working capital purposes	\$ 11,350	\$ 11,350	-	-
<b>Total</b>	<b>\$ 32,200</b>	<b>\$ 29,202</b>	<b>\$ -</b>	<b>\$ 2,998</b>

## 2022 PUBLIC OFFERING AND USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised under an underwritten public offering of units, with each unit consisting of one Common Share and one Common Share purchase warrant, on August 11, 2022 (the "2022 Public Offering"), along with amounts actually expended. As of June 30, 2023, the following expenditures had been incurred (in thousands of US dollars):

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Phase 1/2 MDNA11 ABILITY Study	US\$ 8,000	-	-	US\$ 8,000
Pre-clinical development of a BiSKIT candidate	US\$ 8,000	US\$ 680	-	US\$ 7,320
<b>Total</b>	<b>US\$ 16,000</b>	<b>US\$ 680</b>	<b>\$ -</b>	<b>US\$ 15,320</b>

#### ATM FACILITY

On February 17, 2023, the Company entered into the 2023 ATM Agreement with Oppenheimer & Co. Inc., acting as sales agent, pursuant to which the Company may, from time to time sell, through an at-the-market offering on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US\$10.0 million. As of June 30, 2023, the Company did not issue any shares on this 2023 ATM Facility.

#### RISKS AND UNCERTAINTIES

The Company is an immunotherapy company that operates in a highly competitive industry that is dependent on a number of factors that include the Company's capacity to raise additional funding on reasonable terms when necessary, secure partnerships for the development of its product candidates, obtain necessary regulatory approvals and achieve market acceptance, face disruption in availability of key components for ongoing clinical studies, obtain positive results from pre-clinical and clinical studies, successfully develop existing and new products, hire and retain skilled staff and key personnel, rely on third-party providers, protect its intellectual property and face litigation risk in connection thereof. An investment in the Common Shares is subject to a number of risks and uncertainties, including the risks related to the Company being a foreign private issuer.

In addition, the Company may, from time to time, announce or publish preliminary or interim data from its clinical trials. Preliminary and interim data remains subject to audit and verification procedures that may result in the final data being materially different from the preliminary or interim data. Preliminary and interim results of a clinical trial are not necessarily predictive of final results. There can be no assurance that favorable interim or preliminary data will result in favorable final data. Preliminary and interim data are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues, patient data are further examined and reviewed, more patient data become available, and the Company prepares and issues its final clinical study report. As a result, preliminary and interim data should be viewed with caution until the final, complete data are available. Material adverse changes in the final data compared to the preliminary or interim data could significantly harm the Company's business, prospects, financial condition and results of operations.

An investor should carefully consider these risks, as well as the risks described in the Company's Annual Report on Form 20-F, as well as the other information filed with the securities regulators before investing in the Common Shares. If any of such described risks occur, or if others occur, the Company's business, financial condition and the results of operations could be seriously harmed and investors could lose all or part of their investment.

There are important risks which management believes could impact the Company's business. For information on risks and uncertainties, please also refer to the "Risk Factors" section of the Company's most recent Annual Report on Form 20-F filed on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com) and EDGAR at [www.sec.gov/edgar](http://www.sec.gov/edgar).

## DISCLOSURE CONTROLS AND INTERNAL CONTROL OVER FINANCIAL REPORTING

The Company has implemented a system of internal controls that it believes adequately protects the assets of the Company and is appropriate for the nature of its business and the size of its operations. The internal control system was designed to provide reasonable assurance that all transactions are accurately recorded, that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS and that our assets are safeguarded.

These internal controls include disclosure controls and procedures designed to ensure that information required to be disclosed by the Company is accumulated and communicated as appropriate to allow timely decisions regarding required disclosure.

Internal control over financial reporting means a process designed by or under the supervision of the Chief Executive Officer and the Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by the IASB.

The internal controls are not expected to prevent and detect all misstatements due to error or fraud. There were no changes in our internal control over financial reporting that occurred during the three months ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of June 30, 2023, the Company's management assessed the effectiveness of our internal control over financial reporting and disclosure controls and procedures using the Committee of Sponsoring Organizations of the Treadway Commission's 2013 framework. Based on their evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that these controls and procedures are effective.

## OTHER MD&A REQUIREMENTS

### Outstanding Share Data

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

	<b>Number</b>
Common Shares	69,637,469
Warrants	16,185,386
Stock options	5,689,353
<b>Total</b>	<b>91,512,208</b>

For a detailed summary of the outstanding securities convertible into, exercisable or exchangeable for voting or equity securities of Medicenna as at March 31, 2023, refer to notes 9, 10, and 11 of the Annual Financial Statements of the Company.

Additional information relating to the Company, including the Company's Annual Report on Form 20-F, is available under the Company's profile on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com) and EDGAR at [www.sec.gov](http://www.sec.gov), respectively.

**FORM 52-109F2**  
**CERTIFICATION OF INTERIM FILINGS**  
**FULL CERTIFICATE**

I, Fahar Merchant, Chairman, President and Chief Executive Officer of Medicenna Therapeutics Corp. (“Medicenna”) certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of Medicenna (the “issuer”) for the interim period ended June 30, 2023.

2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a 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 was made, with respect to the period covered by the interim filings.

3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. **Responsibility:** The issuer’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers’ Annual and Interim Filings*, for the issuer.

5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer(s) and I have, as at the end of the period covered by the interim filings

A. designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

- I. material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
- II. information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

B. designed ICFR, or caused it to be designed under our supervision, 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.

5.1 **Control framework:** The control framework the issuer’s other certifying officer(s) and I used to design the issuer’s ICFR is Internal Control – Integrated Framework (COSO 2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

5.2 **ICFR – material weakness relating to design:** N/A

5.3 **Limitation on scope of design:** N/A

6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer’s ICFR that occurred during the period beginning on April 1, 2023 and ended on June 30, 2023 that has materially affected, or is reasonably likely to materially affect, the issuer’s ICFR.

Date: **July 28, 2023**

/s/ Fahar Merchant

Fahar Merchant

Chairman, President and Chief Executive Officer

**FORM 52-109F2  
CERTIFICATION OF INTERIM FILINGS  
FULL CERTIFICATE**

I, Elizabeth Williams, Chief Financial Officer of Medicenna Therapeutics Corp. (“Medicenna”) certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of Medicenna (the “issuer”) for the interim period ended June 30, 2023.

2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a 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 was made, with respect to the period covered by the interim filings.

3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. **Responsibility:** The issuer’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers’ Annual and Interim Filings*, for the issuer.

5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer(s) and I have, as at the end of the period covered by the interim filings

A. designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

- I. material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
- II. information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

B. designed ICFR, or caused it to be designed under our supervision, 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.

5.1 **Control framework:** The control framework the issuer’s other certifying officer(s) and I used to design the issuer’s ICFR is Internal Control – Integrated Framework (COSO 2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

5.2 **ICFR – material weakness relating to design:** N/A

5.3 **Limitation on scope of design:** N/A

6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer’s ICFR that occurred during the period beginning on April 1, 2023 and ended on June 30, 2023 that has materially affected, or is reasonably likely to materially affect, the issuer’s ICFR.

Date: **July 28, 2023**

/s/ Elizabeth Williams  
Elizabeth Williams  
Chief Financial Officer

## Medicenna Reports First Quarter Fiscal 2024 Financial Results and Operational Highlights

- *Safety Review Committee clears MDNA11 Cohort 6 dose of 120µg/Kg, Q2W, in the Phase 1 portion of the ABILITY Study as there were no protocol defined dose-limiting toxicities*
- *MDNA11 clinical update scheduled for August 9; conference call to discuss data from cohorts five and six, recommended dose for monotherapy expansion and details on Phase 2 trial design*
- *\$29.6 million in cash and cash equivalents as of June 30, 2023 provides expected runway through the completion of the ABILITY study and through calendar Q3 2024*

TORONTO and HOUSTON, July 28, 2023 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. (“Medicenna” or “the Company”) (NASDAQ: MDNA TSX: MDNA), a clinical-stage immunotherapy company, today announced financial results and corporate highlights for the first quarter ended June 30, 2023, as well as anticipated near-term corporate milestones.

“We are pleased with our start to fiscal 2024 and remain on track to share data readouts for cohorts five and six in addition to updates in lower dose cohorts. We believe that the clearance by the Safety Review Committee of the 120µg/Kg dose administered every 2 weeks, continues to demonstrate the acceptable tolerability profile of MDNA11. Accordingly, we expect to announce, on August 9<sup>th</sup>, the Recommended Dose for Expansion, as well as the indications we plan to pursue in the monotherapy expansion cohort of the Phase 2 ABILITY study following data review by the independent clinical and safety advisors of the Company,” commented Fahar Merchant, Ph.D., President and CEO of Medicenna. “We are encouraged by the safety profile of MDNA11 to date in addition to the prolonged and persistent single-agent activity in heavily pre-treated, end-stage cancer patients, even though the purpose of the Phase 1 ABILITY study was to evaluate the safety of MDNA11. We look forward to evaluating MDNA11 in a Phase 2 patient population in which the patients are less heavily treated in clinically relevant tumor types and may therefore be more likely to respond to immunotherapy treatments such as MDNA11.”

### Operational Highlights

On April 17, 2023, we announced new preclinical data characterizing the Interleukin 13 (IL-13) Superkines, MDNA132 and MDNA213 (an improved version of MDNA132), and a series of IL-13 BiSKITs, were presented at the AACR Annual Meeting, held in Orlando, Florida. The results demonstrated that the IL-13 Superkines represent a versatile platform for engineering the next generation of precision immunotherapies for many immune-resistant IL-13Rα2 expressing tumors.

On April 25, 2023, the Company received an extension notice (the “Extension Notice”) from Nasdaq granting the Company’s request for a 180-day extension to regain compliance with the Minimum Bid Requirement. The Company has until October 23, 2023 to regain compliance with the Minimum Bid Requirement. The Extension Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company’s operations are not affected by the receipt of the Extension Notice.

On July 20, 2023, Dr. Fahar Merchant, President and CEO of Medicenna, was invited to present and participate in a Research Roundtable organized by the National Brain Tumor Society. The event, entitled, Use of External Control Data in Brain Tumor Clinical Trials was held in Washington, D.C.

### Expected Upcoming Milestones

Initial anti-tumor activity data from ABILITY’s fifth and sixth dose escalation cohorts in calendar Q3 2023.

Commencement of the ABILITY study’s MDNA11 Phase 2 monotherapy arm expected in calendar Q3 2023.

Clinical update from the ABILITY study’s MDNA11 Phase 2 monotherapy arm expected in calendar Q4 2023.

Commencement of the MDNA11 plus pembrolizumab combination arm of the ABILITY study in calendar Q4 2023.

### Financial Results

As of June 30, 2023, cash, cash equivalents and marketable securities were \$29.6 million, compared to \$33.6 million on March 31, 2023.

Net loss for the quarter ended June 30, 2023, was \$2.9 million or \$0.04 per share compared to a net loss of \$4.2 million or \$0.07 per share for the quarter ended June 30, 2022. The decrease in net loss for the quarter ended June 30, 2023, compared with the quarter ended June 30, 2022, was primarily a result of a non-cash gain of \$1.7 million related to the fair value of the warrant derivative.

Research and development expenses of \$2.8 million were incurred during the quarter ended June 30, 2023, compared with \$2.4 million incurred in the quarter ended June 30, 2022. The increase in R&D expenses in the current quarter was primarily attributed to increased licensing and patent legal fees and higher clinical costs associated with the MDNA11 ABILITY Study.

General and administrative expenses of \$1.6 million were incurred during the quarter ended June 30, 2023, compared with \$1.9 million during the quarter ended June 30, 2022. The decrease in G&A expenses in the current quarter is primarily a result of a reduction in directors and officers liability insurance premiums.

### About Medicenna

Medicenna is a clinical stage immunotherapy company focused on the development of novel, highly selective versions of IL-2, IL-4 and IL-13 Superkines and first in class Empowered Superkines. Medicenna’s long-acting IL-2 Superkine, MDNA11, is a next-generation IL-2 with superior CD122 (IL-2 receptor beta) binding without CD25 (IL-2 receptor alpha) affinity thereby preferentially stimulating cancer killing effector T cells and NK cells. Medicenna’s early-stage BiSKITs™ program, (Bifunctional SuperKine ImmunoTherapies) is designed to enhance the ability of Superkines to treat immunologically “cold” tumors. Medicenna’s IL-4 Empowered Superkine, bizaxofusp (formerly



MDNA55), has been studied in 5 clinical trials including a Phase 2b trial for recurrent GBM, the most common and uniformly fatal form of brain cancer. Bizaxofusp has obtained FastTrack and Orphan Drug status from the FDA and FDA/EMA, respectively.

### **Forward Looking Statements**

*This news release contains forward-looking statements within the meaning of applicable securities laws that relate to the future operations of the Company, plans and projections and other statements, including statements on the development and potential of the Company's IL-13 Superkines; the timing, progress and release of data from the Company's planned and ongoing clinical trials; and the sufficiency of the Company's current cash and cash equivalents to fund its planned operations through the completion of the ABILITY study and through calendar Q3 2024. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expect", "believe", "seek", "potentially" and similar expressions. and are subject to risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include the risks detailed in the latest Annual Information Form and Annual Report on Form 20-F of the Company for year ended March 31, 2023 and in other filings made by the Company with the applicable securities regulators from time to time in Canada and the United States.*

*The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking information. Such information, although considered reasonable by management, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date hereof and except as required by law, we do not intend and do not assume any obligation to update or revise publicly any of the included forward-looking statements.*

### **Further Information**

For further information about the Company, please contact:

Elizabeth Williams, Chief Financial Officer, 416-648-5555, ewilliams@medicenna.com

### **Media Contact**

For media inquiries, please contact:

Tony Russo, Russo Partners, 212-845-4251, tony.russo@russopartnersllc.com