



***Management's Discussion and Analysis***

***For the Three Months Ended  
June 30, 2018***

**DATE OF REPORT: August 10, 2018**

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as of August 10, 2018, and should be read in conjunction with the June 30, 2018 unaudited condensed consolidated interim financial statements and related notes of Medicenna Therapeutics Corp. ("Medicenna", the "Company", "we", "our", "us" and similar expressions). The unaudited condensed consolidated interim financial statements and related notes of Medicenna, were prepared in accordance with International Financial Reporting Standards ("IFRS") and all dollar amounts are expressed in Canadian dollars unless otherwise noted.

## FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of applicable securities laws. 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 that are not clearly historical in nature are forward-looking, and the words such as "plan", "expect", "is expected", "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", "might", "shall" or "will" be taken, occur or be achieved and similar expressions are generally intended to identify forward-looking statements. Forward-looking statements in this MD&A include, but are not limited to, statements with respect to the Company's:

- requirements for, and the ability to obtain, future funding on favorable terms or at all;
- business strategy;
- expected future loss and accumulated deficit levels;
- projected financial position and estimated cash burn rate;
- expectations about the timing of achieving milestones and the cost of the Company's development programs;
- observations and expectations regarding the effectiveness of MDNA55 and the potential benefits to patients;
- expectations regarding the completion of enrolment of the Company's Phase 2b clinical trial;
- expectations about the timing with respect to commencement of additional clinical trials;
- expectations about the Company's products safety and efficacy;
- expectations regarding the Company's ability to arrange for the manufacturing of the Company's products and technologies;
- expectations regarding the progress and successful and timely completion of the various stages of the regulatory approval process;
- ability to secure strategic partnerships with larger pharmaceutical and biotechnology companies;
- strategy to acquire and develop new products and technologies and to enhance the safety and efficacy of existing products and technologies;
- plans to market, sell and distribute the Company's products and technologies;
- expectations regarding the acceptance of the Company's products and technologies by the market;
- ability to retain and access appropriate staff, management, and expert advisers;
- expectations with respect to existing and future corporate alliances and licensing transactions with third parties, and the receipt and timing of any payments to be made by the Company or to the Company in respect of such arrangements; and
- strategy and ability with respect to the protection of the Company's intellectual property.

all as further and more fully described under the section of this MD&A titled "Risk Factors". 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.

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.

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

## **COMPANY OVERVIEW**

Medicenna Therapeutics Corp. is the company resulting from a "three-cornered" amalgamation involving A2 Acquisition Corp ("A2"), 1102209 B.C. Ltd., a wholly-owned subsidiary of A2 and Medicenna Therapeutics Inc. ("MTI"), a privately held clinical stage biotechnology company. A2 was formed by articles of incorporation under the Business Corporations Act (Alberta) ("ABCA") on February 2, 2015, and following its initial public offering, was a "capital pool company" listed on the Toronto Stock Exchange Venture ("TSXV"). As a capital pool company, A2 had no assets other than cash and did not carry on any operations. On March 1, 2017, the Company changed its name to Medicenna Therapeutics Corp. and completed a consolidation of its share capital on the basis of one post-consolidation common share for every 14 pre-consolidation common shares (the "Consolidation"). Medicenna completed its qualifying transaction pursuant to the policies of the TSXV by way of reverse takeover of A2 by the shareholders of MTI on March 1, 2017 (the "Transaction").

On August 2, 2017 Medicenna graduated to the main board of the Toronto Stock Exchange ("TSX") and on October 18, 2017 Medicenna was listed on the OTCQX International ("OTCQX"). On November 13, 2017, Medicenna continued under the Canada Business Corporations Act.

Medicenna has three wholly owned subsidiaries, MTI, Medicenna Biopharma Inc. (Delaware) and Medicenna Biopharma Inc. (British Columbia).

Medicenna is a clinical stage immunotherapy company developing novel highly selective versions of IL-2, IL-4 and IL-13 Superkines and first in class Empowered Cytokines™ (ECs). Our mission is to become the leader in the development and commercialization of targeted Empowered Cytokines™ and Superkines for the treatment of a broad range of cancers and immune-mediated diseases. We seek to achieve these successful treatments by drawing on our expertise, and that of world-class collaborators, to develop a unique set of Superkines. These Superkines can be developed either on their own as short or long-acting therapeutics or fused with pro-apoptotic proteins in order to precisely deliver potent cell-killing agents to cancer cells, cancer stem cells as well as the immunosuppressive tumor micro-environment without harming healthy cells. Superkines can also be fused with other types of proteins such as antibodies to generate novel "immunocytokines" or combined with other treatment modalities such as checkpoint inhibitors, CAR-T or oncolytic viruses to stimulate tumor-killing immune cells or overcome the immunosuppressive tumor micro-environment.

MDNA55 is Medicenna's lead EC in clinical development for the treatment of recurrent glioblastoma (rGBM), a uniformly fatal form of brain cancer. It is a fusion of a circularly permuted version of interleukin ("IL-4"), fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin ("PE"). MDNA55 has been studied in 3 clinical trials in 72 patients with high grade gliomas including 66 patients with rGBM, in which it has shown compelling signs of efficacy. MDNA55 has secured Orphan Drug Status from the United States Food and Drug Administration ("FDA") and the European Medicines Agency ("EMA") as well as Fast Track Designation from the FDA for the treatment of rGBM.

Medicenna will focus on completing patient enrollment for its Phase 2b clinical trial for MDNA55 in 52 rGBM patients at clinical sites throughout the U.S, and expects to complete enrolment by Q4 2018.

Complementing our lead clinical asset Medicenna has built a deep pipeline of promising pre-clinical candidates. These include a library of Superkines such as IL-2 agonists ("MDNA109"), IL-2 antagonists ("MDNA209"), dual IL-4/IL-13 antagonists ("MDNA413") and IL-13 Superkine ("MDNA132") in-licensed from Stanford University. The most advanced of these programs is MDNA109 which is in pre-clinical development and is the only engineered IL-2 Superkine designed to specifically target CD122 (IL-2R $\beta$ ) without CD25 dependency. Unlike native IL-2, MDNA109 potently stimulates effector T cells, reverses Natural Killer (NK) cell anergy and acts with exceptional synergy when combined with checkpoint inhibitors. Lead selection of MDNA109 with extended half-life characteristics is currently underway.

## **ACHIEVEMENTS & HIGHLIGHTS**

The following are the achievements and highlights for the three months ending June 30, 2018 through to the date hereof:

- On May 2, 2018, Medicenna announced that half the patients in the ongoing Phase 2b study of MDNA55 in rGBM had been recruited and the data demonstrate solid safety results and early signals of efficacy based on the findings of the Safety Review and Clinical Advisory Committees. Following the recruitment milestone, the protocol was amended to implement optimal methodologies for treatment of the remaining patients.
- On June 27, 2018 we announced that we were past the mid-stage of enrolment of the Phase 2b clinical trial of MDNA55 in patients with rGBM and have seen early signs of tumor response and an impressive overall survival rate at 6 months (OS-6) of 90 percent following a single treatment with low doses of MDNA55. With exceptional drug distribution and a desirable safety profile to date, the plan is to treat the remaining patients before the end of 2018 at the higher maximum tolerated dose with an option for repeat treatment in patients showing benefit.
- On July 25, 2018, subsequent to the quarter end, Medicenna announced the allowance of a patent ("Interleukin-4 receptor-binding fusion proteins and uses thereof") issued to Medicenna that covers the composition of engineered IL-4 Superkines coupled to potent fully human cytotoxic payloads.
- Subsequent to the quarter end, on August 2, 2018, we announced preliminary pre-clinical data on MDNA109, the only IL-2 in development with high affinity to CD122 to boost cancer fighting T cells, showing that fusions of MDNA109 with inactive protein scaffolds are long-acting and provide the convenience of easier dosing without sacrificing its safety and efficacy.
- On August 10, 2018 Medicenna received US\$1,219,871 from the Cancer Prevention and Research Institute of Texas (CPRIT) for the reimbursement of previously incurred expenses.

## **FINANCING UPDATE**

### ***Three months ended June 30, 2018***

There were no equity transactions during the three months ended June 30, 2018.

### ***Escrowed Securities***

In connection with the initial public offering of A2 and pursuant to an escrow agreement dated June 8, 2015, an aggregate of 714,285 common shares were placed in escrow.

In connection with the Transaction and pursuant to an escrow agreement dated March 1, 2017, an additional 15,600,000 common shares of Medicenna were placed into escrow.

Pursuant to the policies of the Toronto Stock Exchange, 4,078,572 common shares of the Company are held in escrow as at June 30, 2018. The shares held in escrow will be released on September 2, 2018.

## RESEARCH & DEVELOPMENT UPDATE

### MDNA55

MDNA55 has been studied in previous clinical trials under two Investigational New Drug Applications (“IND”) for the treatment of rGBM, high grade glioma and non-CNS solid tumors. To date, MDNA55 has promising clinical data from 72 patients including 66 adult patients with rGBM following a single intra-tumoral infusion. It has secured Orphan Drug Status from the FDA and the EMA as well as Fast Track Designation from the FDA.

Since the above mentioned clinical trials, there have been many improvements to the convection enhanced delivery (“CED”) technology, a drug delivery technique for localized delivery of MDNA55 into brain tumors. This includes use of newly developed techniques for high precision placement of catheters into the tumor bed as well as novel stepped design catheters that prevent backflow and leakage of MDNA55 during treatment. Furthermore, by co-infusion of an MRI (“Magnetic Resonance Imaging”) contrast agent with MDNA55, drug distribution can be monitored in real-time in order to achieve maximum coverage of the tumor bed and the tumor margins. Unlike previous clinical trials, early data from the MDNA55 Phase 2b clinical trial presented in October and November 2017, show that each of these improvements facilitates more accurate targeting and superior distribution of MDNA55 to regions of active tumor growth as well as the margins around the tumor. Medicenna has obtained an exclusive license from the National Institute of Health (“NIH”) to patents covering CED and the use of a surrogate tracer for real-time monitoring of MDNA55 delivery and distribution.

### ***Phase 2b Study Outline for Glioblastoma at First Recurrence or Progression***

The Phase 2b trial with MDNA55 using enhanced CED delivery is a multi-center, open-label, single-arm study in approximately 52 subjects with first or second recurrence or progression of GBM after surgery or radiotherapy ± adjuvant therapy or other experimental therapies.

The primary endpoint in the study is to determine the objective response rate (“ORR”) as per Response Assessment in Neuro-Oncology (RANO) based criteria following a single intra- and peri-tumoral infusion of MDNA55 in adult subjects with rGBM. The ORR will be assessed by gadolinium-enhanced MRI and determined by an independent blinded central imaging lab. The primary efficacy analysis will be assessed according to a single-stage binomial design with primary hypothesis test comparing a null ORR of 6% with an alternative ORR of 18%, at 1-sided alpha = 0.20. The study will have 80% power with 23 evaluable subjects under the optimized protocol.

### ***Phase 2b Study Update***

In April 2017, we treated the first patient in the Phase 2b clinical trial of MDNA55 for the treatment rGBM and we are currently enrolling patients at nine clinical sites across the United States and we expect to complete enrolment in the study (52 patients) in Q4 of calendar 2018.

On September 28, 2017 we announced that based on encouraging drug distribution and safety data observed in the on-going Phase 2b clinical trial of MDNA55 we had commenced the implementation of an amended protocol incorporating enhanced drug delivery procedure which will be used for the treatment of the remaining patients. The amended protocol allows higher doses and volumes of MDNA55 as well as an increase in the total expected study size – from 43 patients under the original protocol to 52 total planned patients now expected to enroll. This protocol amendment was based on a planned safety analysis following a unanimous recommendation from MDNA55’s Safety Review Committee after enrollment of the first six patients.

On October 10, 2017, new clinical data was presented at the 2017 Congress of Neurological Surgeons (“CNS”) (Boston, MA), demonstrating successful delivery in rGBM patients and a reassuring safety profile for MDNA55. In the study MDNA55-05, investigators administer MDNA55 directly into GBM brain tumors using CED which allows precision delivery of MDNA55 at high concentrations into the tumor tissue while avoiding exposure to the rest of the body. Principal investigator John H. Sampson MD, PhD, of Duke University Medical Center Department of Neurosurgery, presented the data at the CNS meeting which showed a substantially higher proportion of the target tissue being covered than in previous similar trials. In some cases, close to 100% of the tumor and the 1cm margin around it (at risk for tumor spread) had been successfully covered.

Additional clinical data from the on-going Phase 2b rGBM clinical trial of MDNA55 were presented at the 22nd Annual Meeting of the Society of Neuro-Oncology ("SNO") held in San Francisco (November 15-19, 2017). Dr. Krystof Bankiewicz, MD, PhD, Professor in Residence of Neurological Surgery at the University of California San Francisco, provided an update on drug distribution and safety data from the first 15 patients treated in the study. The oral and poster presentations at the SNO conference outlined that through a process of real-time image guided delivery together with the ability to monitor and adjust infusion parameters, drug delivery was dramatically improved with significant enhancement in target coverage. A previous CED study in rGBM, without the advances implemented by Medicenna, [ref: J Neurosurg. 2010 Aug;113(2):301-9], was able to achieve, on average, coverage of only 20% of the target volume. In contrast, in the current study, a comparable estimate for coverage of the tumor and a 1cm high-risk margin around it showed approximately 65% coverage with the figure rising to 75% for the tumor area alone, with some patients achieving near 100% coverage of the target volume.

As reported on May 2, 2018, half the patients in the study had been recruited and the data to date demonstrated solid safety results and early signals of efficacy based on the findings of the Safety Review and Clinical Advisory Committees, comprised of key opinion leaders and study investigators. Following the Safety Review Medicenna amended the protocol at the recommendation of clinical advisors to further improve the chances for demonstrating increased therapeutic benefit for patients. The amendment will allow the implementation of optimal methodologies including more personalized dosing based on the tumor load, incorporation of advanced imaging modalities to measure treatment responses more reliably and allowing investigators to administer a second dose of MDNA55 where appropriate.

Review of some patients who had been withdrawn from the study, believing that their disease had progressed, found that the apparent increases in tumor volumes, seen on brain scans, were, in fact, due to tissue necrosis, inflammation and edema. This is a known effect of immunotherapeutic agents such as MDNA55, called pseudo-progression, which poses a challenge to patient retention, management and data interpretation. When evaluating images from the above patients, using multi-modal imaging, Medicenna found evidence of biological activity of MDNA55 suggesting that these patients were benefiting from the treatment, and in multiple cases following withdrawal from the study, surgical resection showed significant tumor necrosis. This amendment allows a biopsy and/or advanced multi-modal imaging to more accurately discriminate between necrosis/inflammation and true disease progression. It is believed these tools will encourage subjects to remain in the study, where appropriate, giving time for the pseudo-progression to resolve and increase the likelihood of clinical responses.

Following the amended protocol as announced on May 2, 2018 and after receiving the necessary regulatory and site approvals we have resumed enrolling patients at the high dose. It is anticipated that enrollment in the study will be completed in calendar Q4 2018.

## **Superkine and Empowered Cytokine Platforms**

### ***IL-2 Superkines***

IL-2 was one of the first effective immunotherapies developed to treat cancer due to its proficiency at expanding T cells, the central players in cell-mediated immunity. Originally discovered as a growth factor for T cells, IL-2 can also drive the generation of activated immune cells, immune memory cells, and immune tolerance.

In contrast, IL-2 induced overstimulation of immune cells can lead to an imbalance in the ratio of effector and regulatory T cells, resulting in autoimmune diseases.

Part of the reason for this is due to the nature of the IL-2 receptor.

The IL-2 receptor is composed of three different subunits, IL-2R $\alpha$  (also known as CD25), IL-2R $\beta$  (CD122) and IL-2R $\gamma$  (CD132). The arrangement of these different proteins determines the response to IL-2 signaling.

The IL-2 $\beta$  and IL-2 $\gamma$  components together make a receptor capable of binding IL-2, but only moderately so. When all three components are together, including IL-2R $\alpha$ , the receptor binds IL-2 with a much higher affinity.

This complete receptor is usually found on regulatory T cells, which dampen an ongoing immune response. The lower affinity receptor, composed of just the IL-2 $\beta$  and IL-2 $\gamma$  components, is more often found on “naive” immune cells, which are awaiting instructions before seeking out cancer cells.

Altering IL-2's propensity for binding these receptors could encourage greater immune cell activation or block the function of regulatory cells.

Medicenna's MDNA109 and MDNA209 take advantage of this dynamic by binding to specific receptors and either activating or blocking them.

MDNA109 is an enhanced version of IL-2 that binds 1,000 times more effectively to IL-2R $\beta$ , thus greatly increasing its ability to activate and proliferate the immune cells needed to fight cancer. Because it preferentially binds IL-2R $\beta$  and not the receptor containing IL-2R $\alpha$ , MDNA109 drives effector T cell responses over regulatory T cells.

Additionally, MDNA109 reverses Natural Killer (NK) cell anergy and acts with exceptional synergy when combined with checkpoint inhibitors. Lead selection of MDNA109 with extended half-life characteristics is currently underway and expected to be complete in 2018.

MDNA209 can be used to induce the opposite effect. This Superkine mimics the shape of IL-2 and is also 1,000 times more likely to bind IL-2R $\beta$ . But rather than triggering IL-2 signaling, MDNA209 acts as an antagonist, blocking the receptor and preventing it from transmitting the signal. This could be used for diseases such as autoimmune disorders where it is essential to prevent T cells from becoming activated and attacking healthy tissue.

#### ***IL-4 and IL-13 Superkines***

Medicenna's IL-4 and IL-13 Superkines are engineered versions of wild type cytokines which possess enhanced affinity and selectivity for either the Type 1 or Type 2 (IL4R). This selectivity is achieved through mutations of the IL-4 or IL-13 proteins to enhance affinity for binding to specific IL4R 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).

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 for Th2-mediated diseases such as atopic dermatitis, asthma and idiopathic pulmonary fibrosis. With commercial validation of the IL-4/IL-13 axis as an effective therapeutic target for atopic dermatitis and asthma, Medicenna believes a topical or aerosol formulation of MDNA413 may be an important differentiated product compared to a blocking antibody (Dupixent®: Regeneron Pharmaceuticals and Sanofi) recently approved by the FDA for the treatment of moderate to severe atopic dermatitis. Dupixent® is administered by subcutaneous injection every other week.

Another promising IL-13 Superkine is MDNA132. Unlike MDNA413, MDNA132 is an IL-13 ligand that has been engineered to increase affinity for IL13R alpha2 overexpressed on certain solid tumors while exhibiting sharply decreased affinity for IL13R alpha1. Medicenna believes MDNA132 has superior targeting compared to other IL-13 variants in development, and is an attractively differentiated targeting domain for inclusion in new and exciting field of immuno-oncology based on the Chimeric Antigen Receptor T cell (CAR-T) platform.

#### ***IL-4 and IL-13 Empowered Cytokines***

As part of the CPRIT funded project, Medicenna is pursuing development of MDNA57. The objective of the development is to further develop MDNA57 (a fully human version of MDNA55) designed to specifically target solid tumors that express the Type 2 IL4R. Being fully human, we expect MDNA57 to be less or non-immunogenic allowing multi-cycle systemic administration. Use of IL-4 or IL-13 Superkines, licensed from

Stanford, as targeting domains may provide a higher degree of selectivity and therefore much better safety and efficacy profile.

## SELECTED FINANCIAL INFORMATION

	Three months ended June 30, 2018	Three months ended June 30, 2017
	\$	\$
General and Administration	414,551	438,091
Research and Development	634,973	1,804,790
Net Loss	(1,038,217)	(2,255,672))
Basic and Diluted Loss per Share	(0.04)	(0.09)
Total Assets	3,644,480	12,465,849
Total Liabilities	2,000,746	7,593,559

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

For the three months ended June 30, 2018, we reported a net loss of \$1,038,217 or \$0.04 per share compared to a loss of \$2,255,672 or \$0.09 per share for the three months ended June 30, 2017. The decrease in net loss in the three months ended June 30, 2018 compared with the three months ended June 30, 2017 was primarily a result of decreased travel, regulatory and clinical expenses for MDNA55 due to reduced patient recruitment during the period the protocol amendment was being prepared and approved as well as a higher level of expenses offset by CPRIT eligible expenses related to MDNA55. These reductions were offset by additional spending on the pre-clinical pipeline, specifically MDNA109.

## RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDING JUNE 30, 2018

### Research and Development Expenses

	Three months ended June 30,	
	2018	2017
	\$	\$
Chemistry, manufacturing and controls	77,668	85,451
Regulatory	7,473	43,303
Discovery and pre-clinical	327,988	235,220
Research & Development Warrant	236,858	236,858
Clinical	739,401	886,782
Salaries and benefits	339,141	334,583
Licensing, patent legal fees and royalties	206,942	81,597
Stock based compensation	99,179	119,476
CPRIT grant claimed on eligible expenses	(1,408,936)	(359,502)
Other research and development expenses	9,259	141,022
	<b>634,973</b>	<b>1,804,790</b>

Research and development ("R&D") expenses of \$634,973 were incurred during the three months ended June 30, 2018, compared with \$1,804,790 in the three months ended June 30, 2017. The decrease in expenditures in the current period can be primarily attributed to the following factors:

- Reduced clinical expenses due to reduced patient recruitment costs, as the protocol amendment was prepared and sent to each clinical site for approval during the period.
- A reduction in other R&D expenses due to reduced travel expenses.
- A higher reimbursement of expenses with respect to the CPRIT grant of \$1,408,936 in the current period compared with \$359,502 in the prior year period.

These reductions were offset by the following increases:

- Increased discovery and pre-clinical activities associated with the Superkine programs including MDNA109, in particular activities associated with the development and testing of long acting versions of MDNA109.
- Higher licensing fees, patent costs, royalties and consulting expenses associated pipeline review and program prioritization.

### General and Administrative Expenses

	Three months ended June 30,	
	2018	2017
	\$	\$
Depreciation expense	1,705	4,590
Stock based compensation	156,893	116,818
Facilities and operations	44,286	39,894
Legal, professional and finance	31,938	114,805
Salaries and benefits	190,893	256,619
Other expenses	181,347	84,181
CPRIT grant claimed on eligible expenses	(192,511)	(178,816)
	<b>414,551</b>	<b>438,091</b>

General and administrative (“G&A”) expenses of \$414,551 were incurred during the three months ended June 30, 2018, compared with \$438,091 during the three months ended June 30, 2017. The decrease is attributed primarily to the following factors:

- Stock based compensation expense in the current year represents the fair value amortization of stock option grants issued to general and administrative employees and directors.
- Other expenses increased due to one-time costs associated with the launch of a new website, logo and corporate presentation.
- The above noted increases are offset by lower salary and benefit costs due to headcount reductions and a bonus accrual in the prior year as well as lower legal, professional and finance expenses in the current period due to expenses related to the TSX main board graduation incurred in the prior year period.
- A higher reimbursement of expenses with respect to the CPRIT grant of \$192,511 in the current period compared with \$178,816 in the prior year period.

## SUMMARY OF QUARTERLY FINANCIAL RESULTS

	June 30 2018	March 31 2018	Dec. 31 2017	Sept. 30 2017	June 30 2017	March 31 2017	Dec. 31 2016	Sept. 30 2016
	\$	\$	\$	\$	\$	\$	\$	\$
General and administration	414,551	440,454	824,007	632,132	438,091	542,243	622,785	311,529
Research and development	634,973	864,005	1,351,703	1,069,648	1,804,790	2,044,540	1,597,982	521,587
Net loss	(1,038,217)	(1,310,506)	(2,181,022)	(1,718,252)	(2,255,672)	(4,355,743)	(2,178,966)	(944,654)
Basic and diluted loss per share	(0.04)	(0.05)	(0.09)	(0.07)	(0.09)	(0.23)	(0.13)	(0.06)
Total assets	3,644,480	4,374,582	6,838,585	9,904,455	12,465,849	14,483,227	5,851,438	6,803,300
Total liabilities	2,000,746	2,212,757	4,534,080	6,323,242	7,593,559	7,826,486	1,001,650	740,050

Research and development expenses decreased in the three months ended June 30, 2018 as a result of reduced clinical expenses due to reduced patient recruitment costs. Research and development expenses increased in the quarters ended Dec 31, 2016 to December 31, 2017 due to the initiation of the Phase 2b clinical trial as well as expenditures related to the pre-clinical pipeline leading to additional non-CPRIT eligible spending..

General and administrative expenses are lower in the current quarters due to a reduction in salaries and legal fees. The increase in the quarter ended December 31, 2017 related to costs associated with stock option grants issued to general and administrative employees and directors.

## 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 \$19,119,837 as of June 30, 2018. With current revenues only consisting of interest earned on excess cash, losses are expected to continue while the Company's R&D programs are advanced.

We currently do not earn any revenues from our drug 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 and the commercialization of MDNA55 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 significant revenues from strategic partners.

Management has forecasted that the Company's current level of cash will not be sufficient to execute its current planned expenditures for the next 12 months without further financing being obtained. The Company is currently in discussion with several potential investors and partners to provide additional funding. Management believes that it will complete one or more of these arrangements in sufficient time to continue to execute its planned expenditures. However, there can be no assurance that the capital will be available as necessary to meet these continuing expenditures, or if the capital is available, that it will be on terms acceptable to the Company. The issuance of common shares by the Company could result in significant dilution in the equity interest of existing shareholders. There can be no assurance that the Company will be able to obtain sufficient financing to meet future operational needs which may result in the delay, reduction or discontinuation of ongoing development programs. As a result, there is a substantial doubt as to whether the Company will be able to continue as a going concern and realize its assets and pay its liabilities as they fall due.

## **CASH POSITION**

At June 30, 2018, we had a cash balance of \$1,589,262 compared to \$3,938,734 at March 31, 2018. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at June 30, 2018 was \$1,894,385 (March 31, 2018: \$2,410,772).

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, CMC 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 regulatory approval to commercialize any of our products under development and/or royalty or milestone revenue from any such products should they exceed our expenses.

## **CONTRACTUAL OBLIGATIONS**

As of June 30, 2018, we have the following obligations to make future payments, representing contracts and other commitments that are known and committed:

<b>Contractual obligations</b>	<b>Payments Due by Period</b>			
	<b>1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>Total</b>
Patent licensing costs, minimum annual royalties per license agreements	\$ 47,000	\$ 93,000	\$ 240,000	\$ 380,000
Liquidity event payment	\$ 0	\$ 336,971	\$ 0	\$ 336,971

The Company utilizes temporary office space with terms of less than one year.

The Company cannot reasonably estimate future royalties which may be due upon the regulatory approval of MDNA55.

### ***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 is eligible to receive up to US\$14,100,000 on eligible expenditures over a three year period related to the development of the Company's phase 2b clinical program for MDNA55. On an ongoing basis, we must demonstrate that the expenditures are eligible using CPRIT's criteria, show proof that we have 50% matching funds available, that development milestones have been achieved and that best efforts have been made to establish substantial project related expenses within the state of Texas. In October 2017 the Company was granted a one year extension to the grant allowing expenses to be claimed over a four year period ending February 28, 2019.

Of the US\$14.1 million grant approved by CPRIT, Medicenna has received US\$8.8 million to date and up to US\$1.2 million may be reimbursed for a total of approximately US\$10 million. Further, up to approximately US\$4.1 million may be reimbursed to Medicenna in the event the Company successfully completes all the funded projects to the satisfaction of the Product Development Review Committee (PDRC) of CPRIT. There can be no assurance that Medicenna will be able to satisfy all the expectations of the PDRC.

On February 24, 2017, the Company received an advance of US\$5,000,000 from CPRIT and as of March 31, 2017, \$5,949,870 (US\$4,470,226) remained available for offset from the advance. This advance was recognized as an offset against eligible expenses during the year ended March 31, 2018.

The amount receivable at June 30, 2018 represents funds spent on approved grant expenditures, but not yet reimbursed. The amount payable at June 30, 2017 represents funds received and not yet spent on approved grant expenditures.

Ongoing program funding from CPRIT is subject to a number of conditions including the satisfactory achievement of milestones that must be met to release additional CPRIT funding, proof the Company has raised 50% matching funds and that best efforts have been made to establish substantial project related expenses within the state of Texas. If the Company is found to have used any grant proceeds for purposes other than intended, is in violation of the terms of the grant, or relocates the majority of its project related operations outside of the state of Texas, then the Company may be required to repay any grant proceeds received. There can be no assurances that the Company will continue to meet the necessary CPRIT criteria or that CPRIT will continue to advance additional funds to the Company.

### ***Intellectual Property***

The Company has entered into various license agreements with respect to accessing intellectual property in the form of filed and issued patents. 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, 2018, the Company is obligated to pay the following:

- Patent licensing costs due within 12 months totaling \$47,000.
- Patent licensing costs, including the above, due within the next five years totaling \$380,000.
- Project milestone payments, assuming continued success in the development programs, of uncertain timing totaling US\$2,800,000 and an additional US\$2,000,000 in sales milestones.
- A license royalty of \$636,000 in four equal instalments over the next four years to NIH, which represents 1.5% of the Fair Market Value of the Company upon completion of the Transaction (which constituted MTI's liquidity event).

As part of these license agreements, the Company has committed to make certain royalty payments based on net sales to Yissum Research Development Company of the Hebrew University of Jerusalem, Ltd., the NIH and Stanford.

### **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 (President and Chief Executive Officer, Chief Financial Officer, and Chief Development Officer) and directors, received the following compensation for the following periods:

	<b>Three months ended June 30, 2018</b>	<b>Three months ended June 30, 2017</b>
	\$	\$
Salaries and Wages	<b>222,937</b>	340,651
Board Fees	<b>35,508</b>	20,750
Stock Option Expense	<b>233,130</b>	200,720
	<b>491,575</b>	562,121

As at June 30, 2018, the Company had trade and other payables owing to related parties of \$203,564 related to expense reimbursements and accrued vacation.

The Company paid \$6,866 in office rent to Aries Biologics Corp, a company controlled by the CEO and CDO of the Company.

This transaction was in the normal course of business and has been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

## **ACCOUNTING PRONOUNCEMENTS FOR FUTURE ADOPTION**

IFRS 16, Leases IFRS 16 is a new standard that sets out the principles for recognition, measurement, presentation, and disclosure of leases including guidance for both parties to a contract, the lessee and the lessor. The new standard eliminates the classification of leases as either operating or finance leases as is required by IAS 17 and instead introduces a single lessee accounting model. IFRS 16 is effective for annual periods beginning on or after January 1, 2019. The impact of IFRS 16 on the Company's leases and financial statements has not yet been determined.

## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

The significant accounting policies of the Company are described in note 2 of the audited consolidated financial statements for the year ended March 31, 2018 and available on SEDAR ([www.sedar.com](http://www.sedar.com)).

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 audited consolidated financial statements for the year ended March 31, 2018 filed on SEDAR ([www.sedar.com](http://www.sedar.com)).

## **FINANCIAL INSTRUMENTS**

### **(a) Fair value**

The Company's financial instruments recognized on the consolidated statements of financial position consist of cash, other receivables, accounts payable and accrued liabilities, deferred government grants and license fee payable. The fair value of these instruments, approximate their carry values due to their short-term maturity.

#### *Classification of financial instruments*

Financial instruments measured at fair value on the statement of financial position are summarized into the following fair value hierarchy levels:

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Company classifies its financial assets and liabilities depending on the purpose for which the financial instruments were acquired, their characteristics, and management intent as outlined below:

Cash is measured using Level 1 inputs and changes in fair value are recognized through profit or loss, with changes in fair value being recorded in net earnings at each period end.

Other receivables have been classified as loans and receivables and are measured at amortized cost less impairments.

Accounts payable and accrued liabilities and deferred government grants have been classified as other financial liabilities.

The Company has exposure to the following risks from its use of financial instruments: credit, interest rate, currency and liquidity risk. The Company reviews its risk management framework on a quarterly basis and makes adjustments as necessary.

### **(b) Financial risk management**

We have exposure to credit risk, liquidity risk and market risk. Our Board of Directors has the overall responsibility for the oversight of these risks and reviews our policies on an ongoing basis to ensure that these risks are appropriately managed.

#### *i. Credit risk*

Credit risk arises from the potential that a counterparty will fail to perform its obligations. The financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents.

The Company attempts to mitigate the risk associated with cash and cash equivalents by dealing only with major Canadian financial institutions with good credit ratings.

#### *ii. Interest rate risk*

Interest rate risk is the risk that the fair values and future cash flows of the Company will fluctuate because of changes in market interest rates. The Company believes that its exposure to interest rate risk is not significant.

#### *iii. Liquidity risk*

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles all of its financial obligations out of cash. The ability to do so relies on the Company maintaining sufficient cash in excess of anticipated needs. As at March 31, 2018, the Company's liabilities consist of trade and other payables that have contracted maturities of less than one year.

#### *iv. Currency risk*

Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Company is exposed to currency risk from employee costs as well as the purchase of goods and services primarily in the United States and the cash balances held in foreign currencies. Fluctuations in the US dollar exchange rate could have a significant impact on the Company's results. Assuming all other variables remain constant, a 10% depreciation or appreciation of the Canadian dollar against the US dollar would result in an increase or decrease in loss and comprehensive loss for the year ended June 30, 2018 of \$132,000 (March 31, 2018 - \$88,000).

Balances in foreign currencies are as follows:

	<b>June 30, 2018</b>	March 31, 2018
	\$	\$
Cash	<b>892,817</b>	2,115,262
Accounts payable and accrued liabilities	<b>(1,107,603)</b>	(1,429,909)
Deferred government grant receivable	<b>1,219,871</b>	-
	<b>1,005,085</b>	685,353

### **(c) Managing Capital**

The Company's objectives, when managing capital, are to safeguard cash as well as maintain financial liquidity and flexibility in order to preserve its ability to meet financial obligations and deploy capital to grow its businesses.

The Company's financial strategy is designed to maintain a flexible capital structure consistent with the objectives stated above and to respond to business growth opportunities and changes in economic conditions. In order to maintain or adjust its capital structure, the Company may issue shares or issue debt (secured, unsecured, convertible and/or other types of available debt instruments).

There were no changes to the Company's capital management policy during the year. The Company is not subject to any externally imposed capital requirements.

## **RISKS AND UNCERTAINTIES**

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our common shares, you should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into the most recently filed annual information form, as well as our historical consolidated financial statements and related notes. Management has reviewed the operations of the Company in conjunction with the Board of Directors and identified the following risk factors which are monitored on a biannual basis and reviewed with the Board of Directors. The risks set out below are not the only risks we face. If any of the following risks occurs, our business, financial condition, prospects or results of operations and cash flows would likely suffer. In that case, the trading price of our common shares could decline and you may lose all or part of the money you paid to buy our common shares.

Please refer to our MD&A and annual information form for the year ended March 31, 2018 for a complete discussion of risks and uncertainties.

- We have no sources of product revenue and will not be able to maintain operations and research and development without sufficient funding.
- MDNA55 is in the early and mid-stages of clinical development and, as a result, we are unable to predict whether we will be able to profitably commercialize our product.
- We are subject to the restrictions and conditions of the CPRIT agreement. Failure to comply with the CPRIT agreement may adversely affect our financial condition and results of operations.
- We are at an early stage of development. Significant additional investment will be necessary to complete the development of any of our products to approval.
- Our future success is dependent primarily on the regulatory approval of a single product.
- If we breach any of the agreements under which we license rights to product candidates or technology from third parties, we can lose license rights that are important to our business. Our current license agreements may not provide an adequate remedy for breach by the licensor.
- Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results and our product candidates may not have favourable results in later trials or in the commercial setting.
- If we are unable to enroll subjects in clinical trials, we will be unable to complete these trials on a timely basis
- We rely and will continue to rely on third parties to plan, conduct and monitor preclinical studies and clinical trials, and their failure to perform as required could cause substantial harm to our business.
- We rely on contract manufacturers over whom we have limited control. If we are subject to regulatory, quality, cost or delivery issues with the preclinical and clinical grade materials supplied by contract manufacturers, business operations could suffer significant harm.
- We rely on third parties for drug delivery technologies, software, catheters and other components over whom we have limited control. If we are subject to regulatory, quality, cost or delivery issues with materials supplied by third parties, our clinical trials could be significantly delayed.

- We are highly dependent upon certain key personnel and their loss could adversely affect our ability to achieve our business objectives.
- If our competitors develop and market products that are more effective than our existing product candidates or any products that we may develop, or obtain marketing approval before we do, our products may be rendered obsolete or uncompetitive.
- We will be subject to extensive government regulation that will increase the cost and uncertainty associated with gaining final regulatory approval of our product candidates.
- Negative results from clinical trials or studies of others and adverse safety events involving the targets of our products may have an adverse impact on future commercialization efforts.
- We face the risk of product liability claims, which could exceed our insurance coverage and produce recalls, each of which could deplete cash resources.
- We may not achieve our publicly announced milestones according to schedule, or at all.
- Changes in government regulations, although beyond our control, could have an adverse effect on our business.
- Our significant shareholders may have material influence over our governance and operations.
- Our discovery and development processes involve use of hazardous and radioactive materials which may result in potential environmental exposure.
- If we are unable to successfully develop companion diagnostics or drug delivery technologies for our therapeutic product candidates, or experience significant delays in doing so, we may not achieve marketing approval or realize the full commercial potential of our therapeutic product candidates.
- Significant disruption in availability of key components for ongoing clinical studies could considerably delay completion of potential clinical trials, product testing and regulatory approval of potential product candidates.
- Our success depends upon our ability to protect our intellectual property and proprietary technology.
- Our potential involvement in intellectual property litigation could negatively affect our business.
- Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them.
- Product liability claims are an inherent risk of our business, and if our clinical trial and product liability insurance prove inadequate, product liability claims may harm our business.
- We will have significant additional future capital needs and there are uncertainties as to our ability to raise additional funding.
- Future sales or issuances of equity securities or the conversion of securities to common shares could decrease the value of the common shares, dilute investors' voting power, and reduce earnings per share.
- We are subject to foreign exchange risk relating to the relative value of the United States dollar.
- Any failure to maintain an effective system of internal controls may result in material misstatements of our consolidated financial statements or cause us to fail to meet the reporting obligations or fail to prevent fraud; and in that case, shareholders could lose confidence in our financial reporting, which would harm the business and could negatively impact the price of our common shares.
- Any future profits will likely be used for the continued growth of the business and products and will not be used to pay dividends on the issued and outstanding shares.
- The market for shares in Canada is not stable or predictable and shareholder profits are not in the foreseeable future.
- We may pursue other business opportunities in order to develop our business and/or products.
- Generally, a litigation risk exists for any company that may compromise its ability to conduct our business.
- Our success depends on our ability to effectively manage our growth.
- We are likely a "passive foreign investment company," which may have adverse United States federal income tax consequences for United States shareholders.
- It may be difficult for non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence.

## 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	24,578,137
Warrants	3,045,425
Stock Options	2,050,000
<b>Total</b>	<b>29,673,563</b>

Additional information relating to the Company, is available under the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com).