No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise. This prospectus supplement ("Prospectus Supplement"), together with the accompanying short form base shelf prospectus ("Prospectus") dated July 28, 2020 to which it relates, as may be amended or supplemented, and each document incorporated by reference in the Prospectus, constitutes a public offering of these securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such securities. See "Plan of Distribution".

Information has been incorporated by reference in the Prospectus from documents filed with the securities commissions or similar authorities in the provinces of British Columbia, Alberta and Ontario. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Chief Financial Officer of Medicenna Therapeutics Corp. at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2, Telephone: (416) 648-5555, and are also available electronically under the Corporation's profile on the System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com and the Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") at www.sec.gov/edgar.shtml. See "Documents Incorporated by Reference".

PROSPECTUS SUPPLEMENT TO SHORT FORM BASE SHELF PROSPECTUS DATED JULY 28, 2020

New Issue December 30, 2020



MEDICENNA THERAPEUTICS CORP.

US\$25,000,000 Common Shares

Medicenna Therapeutics Corp. ("Medicenna" or the "Corporation") has entered into a sales agreement dated December 30, 2020 (the "Sales Agreement") with SVB Leerink LLC, or SVB Leerink (the "Agent"), relating to the Corporation's common shares (the "Common Shares"). In accordance with the terms of the Sales Agreement, the Corporation may offer and sell Common Shares having an aggregate offering price of up to US\$25,000,000 (the "Offered Shares") through the Agent, as sales agent, under this Prospectus Supplement. See "Plan of Distribution" beginning on page S-24 of this Prospectus Supplement for more information regarding these arrangements.

The Common Shares are listed on Nasdaq Capital Market ("Nasdaq") under the symbol "MDNA" and on the Toronto Stock Exchange (the "TSX") under the symbol "MDNA". On December 29, 2020, the closing price of the Common Shares on Nasdaq was US\$4.68 per Common Share and on the TSX was \$6.00 per Common Share. The TSX has conditionally approved the listing of the Offered Shares, subject to the Corporation fulfilling all of the listing requirements of the TSX. Nasdaq has been notified of the Offering (as defined below). See "Plan of Distribution" in this Prospectus Supplement.

Upon delivery of a placement notice by the Corporation, if any, the Agent may sell the Offered Shares in the United States only and such sales will only be made by transactions that are deemed to be an "at-the-market" offering as defined in Rule 415(a)(4) under the *United States Securities Act* of 1933, as amended (the "Securities Act"), including, without limitation, sales made directly on or through Nasdaq, or on any other existing trading market for the Common Shares in the United States (the "Offering"). No Offered Shares will be offered or sold in Canada or on the TSX or any other trading markets in Canada. See "Plan of Distribution" in this Prospectus Supplement. The Agent will make all sales using commercially reasonable efforts consistent with their normal sales and trading practices and on mutually agreed upon terms between the Agent and the Corporation. The Offered Shares will be distributed at the market prices prevailing at the time of the sale of such Offered Shares. As a result, prices may vary as between purchasers and during the period of distribution. There is no arrangement for funds to be received in escrow, trust or similar arrangement.

The compensation to the Agent for sales of the Offered Shares under this Prospectus Supplement is equal to three percent (3.0%) of the gross proceeds from the sale of such Offered Shares. See "Plan of Distribution" in this Prospectus Supplement. In connection with the sale of the Offered Shares, SVB Leerink will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of SVB Leerink will be deemed to be underwriting commissions or discounts. The Corporation has also agreed to provide indemnification and contribution to SVB Leerink with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act. The net proceeds, if any, from sales under this Prospectus Supplement will be used as described under the section titled "Use of Proceeds" in this Prospectus Supplement. The proceeds the Corporation receives from sales will depend on the number of Offered Shares actually sold and the offering price of such Offered Shares. In connection with the sale of the Offered Shares on the Corporation's behalf, the Agent will be deemed to be an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act, and the compensation of the Agent will be deemed to be an underwriting commission or discount. Medicenna has agreed to provide indemnification and contribution to the Agent against certain liabilities, including liabilities under the Securities Act.

Neither the Agent, nor any of its affiliates or any person or company acting jointly or in concert with the Agent, has over-allotted, or will over-allot, Common Shares in connection with this Offering or effect any other transactions that are intended to stabilize or maintain the market price of the Common Shares.

An investment in the Offered Shares is speculative and bears certain risks. See "Risk Factors" in this Prospectus Supplement and the Prospectus

This Offering is made by a Canadian issuer that is permitted, under a multijurisdictional disclosure system ("MJDS") adopted by the United States and Canada, to prepare this Prospectus Supplement and the Prospectus in accordance with Canadian disclosure requirements. Prospective investors should be aware that such requirements are different from those of the United States. The financial statements included or incorporated herein have been prepared in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS") and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States) and are subject to Canadian and United States auditing and auditor independence standards and thus may not be comparable to financial statements of United States companies.

Prospective investors should be aware that the acquisition of the Offered Shares described herein may have tax consequences both in the United States and in Canada. Such consequences for investors who are resident in, or citizens of, the United States may not be described fully in this Prospectus Supplement and the Prospectus. You should read the tax discussion under the headings "Certain U.S. Federal Income Tax Considerations" and "Certain Canadian Federal Income Tax Considerations" in this Prospectus Supplement, and consult your own tax advisor with respect to your own particular circumstances.

The enforcement by investors of civil liabilities under the United States federal securities laws may be affected adversely by the fact that the Corporation exists under the laws of Canada, that the majority of its officers and directors are residents of Canada, that many of the experts named in this Prospectus Supplement and the Prospectus are not residents of the United States, and that a substantial portion of the assets of the Corporation and said persons are located outside the United States.

THE SECURITIES OFFERED HEREBY HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION ("SEC") NOR HAS THE SECURITIES COMMISSION OF ANY STATE OF THE UNITED STATES OR ANY CANADIAN

SECURITIES REGULATOR APPROVED OR DISAPPROVED THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS SUPPLEMENT OR THE ACCOMPANYING PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The Offered Shares may only be sold in those jurisdictions where offers and sales are permitted. This Prospectus Supplement is not an offer to sell or a solicitation of an offer to buy the Offered Shares in any jurisdiction in which it is unlawful.

Each of Karen Dawes and John (Jack) Geltosky, directors of the Corporation, resides outside of Canada (the "Non-Resident Directors"). The Non-Resident Directors have appointed the following agent for service of process:

| Name of the Person or Company Name and Address of Agent | |
|--|--|
| Karen Dawes | Medicenna Therapeutics Corp. |
| John (Jack) Geltosky | 2 Bloor Street West, 7 th Floor |
| | Toronto, Ontario, M4W 3E2 |

Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person that resides outside of Canada, even if the party has appointed an agent for service of process. See "Risk Factors — Enforcement of Judgments Against Foreign Persons may not be Possible" in the Prospectus.

In this Prospectus Supplement, unless otherwise specified or the context otherwise requires, all dollar amounts are expressed in Canadian dollars. All references to "dollar", "\$" or "Cdn\$" are to Canadian dollars and United States dollars are indicated by the symbol "US\$". See "Exchange Rate Information".

The Corporation's head and registered office is located at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2 and its telephone number is (416) 648-5555

There is no minimum amount of funds that must be raised under this Offering. This means that the Corporation could complete this Offering after raising only a small proportion of the offering amount set forth above.

SVB Leerink

The date of this Prospectus Supplement is December 30, 2020.

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IMPORTANT NOTICE ABOUT INFORMATION IN THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this Prospectus Supplement, which describes the specific terms of the Offering and Offered Shares and the method of distribution of the Offered Shares and also supplements and updates information regarding Medicenna contained and incorporated by reference in the Prospectus. The second part is the accompanying Prospectus, which gives more general information, some of which may not apply to the Offered Shares. Both documents contain important information you should consider when making your investment decision. If the description of the Offered Shares varies between this Prospectus Supplement and the accompanying Prospectus, investors should rely on the information in this Prospectus Supplement. This Prospectus Supplement is deemed to be incorporated by reference into the Prospectus solely for the purpose of the Offering. If information in this Prospectus Supplement is inconsistent with the Prospectus or the information incorporated by reference in the Prospectus, you should rely on this Prospectus Supplement. You should read this Prospectus Supplement and the accompanying Prospectus, including the information incorporated by reference in the Prospectus, together with the additional information about us to which we refer you in the section of this Prospectus Supplement entitled "Where You Can Find additional Information".

This document is part of a registration statement on Form F-10 (File No. 333-238905) that we filed with the SEC (the "U.S. Registration Statement"). The U.S. Registration Statement was declared effective on July 30, 2020.

You should rely only on the information contained in this Prospectus Supplement, the Prospectus and the documents incorporated by reference in the Prospectus. The Corporation and the Agent have not authorized anyone to provide you with different information. If anyone provides you with any different or inconsistent information, you should not rely on it. The Corporation is offering the Offered Shares only in jurisdictions where such offers are permitted by law.

You should assume that the information contained in this Prospectus Supplement, the Prospectus and the documents incorporated by reference in the Prospectus is accurate only as of their respective dates, regardless of the time of delivery of this Prospectus Supplement and the accompanying Prospectus. The Corporation's business, financial condition, results of operations and prospects may have changed since those dates.

Market data and certain industry forecasts used in this Prospectus Supplement, the Prospectus and the documents incorporated by reference in the Prospectus were obtained from market research, publicly available information and industry publications. The Corporation believes that these sources are generally reliable, but the accuracy and completeness of this information is not guaranteed. The Corporation has not independently verified such information, and it does not make any representation as to the accuracy of such information.

In this Prospectus Supplement, "Medicenna", the "Corporation", "we", "us", and "our" refer to Medicenna Therapeutics Corp. and its subsidiaries.

Medicenna has not registered any trademarks, service marks and trade names that it uses in connection with the operation of its business, including its corporate name, logos and domain names and it has not yet registered any trademarks for any commercial trade names for any of its product candidates. Other trademarks, service marks and trade names appearing in this Prospectus Supplement are the property of their respective owners.

FORWARD-LOOKING STATEMENTS

Certain statements contained in this Prospectus Supplement, the Prospectus and the documents incorporated by reference herein and therein may constitute "forward-looking information" within the meaning of applicable securities laws in Canada and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, as amended (collectively, "forward-looking statements"). These statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Corporation, 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 "seek", "become", "promise", "plan", "expect", "scheduled",

"estimate", "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 Prospectus Supplement and the Prospectus include, but are not limited to, statements with respect to the Corporation's:

- requirements for, and the ability to obtain, future funding on favourable terms or at all;
- · business strategy;
- projected financial position, included estimated cash burn rate, and the sufficiency of the Corporation's financial resources to support its activities;
- expected use of the net proceeds from the Offering, if any;
- expectations about the timing of achieving milestones and the cost of the Corporation's development programs;
- anticipated timing of studies and clinical trials and the release of any results therefrom;
- expectations regarding the progress, and the successful and timely completion, of the various stages of the regulatory approval process;
- expected benefits of a hybrid Phase 3 trial design for MDNA55;
- ability to secure strategic partnerships with larger pharmaceutical and biotechnology companies, including to assist with additional clinical development of MDNA55;
- observations and expectations regarding the effectiveness of MDNA55 and the potential benefits to patients;
- expectations about the Corporation's products' safety and efficacy;
- strategy to acquire and develop new products and technologies and to enhance the safety and efficacy
 of existing products and technologies; and
- 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 Corporation or to the Corporation in respect of such arrangements.

All forward-looking statements reflect the Corporation's beliefs and assumptions based on information available at the time the assumption was made. These forward-looking statements are not based on historical facts but rather on management's expectations regarding future activities, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, business prospects and opportunities. In making the forward-looking statements included in this Prospectus Supplement and the Prospectus, the Corporation has made various material assumptions, including but not limited to (i) obtaining positive results of clinical trials; (ii) obtaining regulatory approvals; (iii) general business and economic conditions; (iv) the availability of financing on reasonable terms; (v) the Corporation's ability to attract and retain skilled staff; (vi) market competition; (vii) the products and technology offered by the Corporation's competitors; (viii) the Corporation's ability to protect patents and proprietary rights; and (ix) the effect of COVID-19 on the Corporation's business and operations.

By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, known and unknown, that contribute to the possibility that the predictions, forecasts, projections or other forward-looking statements will not occur. Factors which could cause future outcomes to differ materially from those set forth in the forward-looking statements include, but are not limited to:

- the effect of continuing operating losses on the Corporation's ability to obtain, on satisfactory terms, or at all, the capital required to maintain the Corporation as a going concern;
- the ability to obtain sufficient and suitable financing to support operations, preclinical development, clinical trials, and commercialization of products;

- the risks associated with the development of novel compounds at early stages of development in the Corporation's intellectual property portfolio;
- the risks of reliance on third parties for the planning, conduct and monitoring of clinical trials and for the manufacture of drug products;
- the risks of reliance on third parties for timely completion of ongoing clinical trial activities, conduct of statistical analysis, imaging analysis, preparation of study reports and regulatory submissions;
- the risks associated with the development of the Corporation's product candidates including the demonstration of efficacy and safety;
- the risks related to clinical trials including potential delays, cost overruns and the failure to demonstrate efficacy and safety;
- the risks of delays and inability to complete clinical trials due to difficulties in securing ethics approval and enrolling subjects;
- the risks associated with the Corporation's inability to successfully develop companion diagnostics for the Corporation's development candidates;
- the risks associated with the Corporation's inability to successfully access drug delivery technology or materials and components required for drug delivery;
- the risks associated with reliance on third parties for proper storage, packaging and shipment of active ingredients or other components required for preclinical or clinical trials;
- the risks associated with product loss or degradation or failure of manufacturing batches and not meeting specifications for use in preclinical or clinical trials;
- the delays or negative outcomes from the regulatory approval process;
- the Corporation's ability to successfully compete in the Corporation's targeted markets;
- the Corporation's ability to attract and retain key personnel, collaborators and advisors;
- the risks relating to the increase in operating costs from expanding existing programs, acquisition of additional development programs and increased staff;
- the risk of negative results of clinical trials or adverse safety events by the Corporation or others related to the Corporation's product candidates;
- the potential for product liability claims;
- the Corporation's ability to achieve the Corporation's forecasted milestones and timelines on schedule;
- the financial risks related to the fluctuation of foreign currency rates and expenses denominated in foreign currencies;
- the Corporation's ability to adequately protect proprietary information and technology from competitors;
- · risks related to changes in patent laws and their interpretations;
- the Corporation's ability to remain compliant with the terms of its agreement with the Cancer Prevention Research Institute of Texas (CPRIT) and collect any remaining funding;
- the Corporation's ability to source and maintain licenses from third-party owners;
- · the risk of patent-related litigation and the ability to protect trade secrets; and
- assessment of the potential impact of COVID-19 on the Corporation's clinical studies and trials and operations generally,

all as further and more fully described in the "*Risk Factors*" sections of this Prospectus Supplement, the Prospectus, the AIF (as defined herein) and the Annual MD&A (as defined herein) and elsewhere in the

Corporation's filings with the Canadian securities regulators and the SEC, as applicable. Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. Although the Corporation 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.

The forward-looking information in this Prospectus Supplement and in the Prospectus does not include a full assessment or reflection of the unprecedented impacts of the COVID-19 pandemic and the ongoing and developing resulting indirect global and regional economic impacts. The Corporation is currently experiencing uncertainty related to the rapidly developing COVID-19 situation. The spread of COVID-19 and global measures to contain it, have had and continue to have an impact on the Corporation, however it is challenging to quantify the potential future magnitude of such impact at this time. The Corporation is regularly assessing the situation and remains in contact with its partners, clinical sites and investigators, contract research organizations ("CROs"), contract development and manufacturing organizations ("CDMOs") and suppliers to assess any impacts and risks. The Corporation believes that ongoing COVID-19 restrictions could impact CROs and associated investigational new drug ("IND")-enabling studies of MDNA11, CDMOs and manufacturing timelines for MDNA11, as well as the planned clinical development timelines of MDNA11 as subject recruitment for clinical trials is currently being impacted. However, the initiation of the clinical study is not planned until mid-calendar 2021 and it is not possible to predict the potential impact of subject recruitment at that time.

Although the forward-looking statements contained herein are based upon what the Corporation's management believes to be reasonable assumptions, the Corporation cannot assure readers that actual results will be consistent with these forward-looking statements.

Forward-looking statements made in a document incorporated by reference in this Prospectus Supplement or the Prospectus are made as of the date of the original document and have not been updated except as expressly provided herein. Other than as specifically required by law, the Corporation undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Accordingly, readers should not place undue reliance on forward-looking statements.

DOCUMENTS INCORPORATED BY REFERENCE

This Prospectus Supplement is deemed to be incorporated by reference into the Prospectus solely for the purposes of the Offering.

Information has been incorporated by reference in this Prospectus from documents filed with securities commissions or similar regulatory authorities in Canada. Copies of the documents incorporated by reference herein may be obtained on request without charge from the Chief Financial Officer of the Corporation at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2, Telephone: (416) 648-5555.

In addition to the continuous disclosure obligations of the Corporation under the securities laws of certain provinces of Canada, the Corporation is subject to certain of the information requirements of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files and furnishes reports and other information with the SEC. Under MJDS, some reports and other information may be prepared in accordance with the disclosure requirements of Canada, which requirements are different from those of the United States. As a foreign private issuer, the Corporation is exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements, and the Corporation's officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, the Corporation may not be required to publish financial statements as promptly as U.S. companies. You may read any document that the Corporation files with or furnish to the SEC at the SEC's Electronic Data Gathering and Retrieval (EDGAR) system from the SEC's website at www.sec.gov.

These documents are also available through the internet under the Corporation's profile on the System for Electronic Document Analysis and Retrieval ("SEDAR") which can be accessed at www.sedar.com. The following documents, filed with the various securities commissions or similar authorities in each of the provinces of British Columbia, Alberta and Ontario, and filed with, or furnished to, the SEC are specifically incorporated by reference into and form an integral part of the Prospectus Supplement:

- the annual information form of the Corporation dated May 14, 2020 for the financial year ended March 31, 2020 (the "AIF");
- the audited financial statements of the Corporation as at, and for the financial years ended <u>March 31, 2020 and 2019, together with the notes thereto and the independent auditor's report</u> thereon:
- 3. <u>the management's discussion and analysis of financial condition and results of operations for the financial year ended March 31, 2020 (the "Annual MD&A");</u>
- 4. <u>the unaudited interim financial statements of the Corporation as at, and for the three and six-month periods ended September 30, 2020 (the "Interim Financial Statements");</u>
- 5. the management's discussion and analysis of financial condition and results of operations for the three and six-months ended September 30, 2020 (the " **Interim MD&A**");
- 6. the material change report dated April 20, 2020 relating to a public offering of Common Shares (the " 2020 Public Offering ");
- the material change report dated August 27, 2020 related to the Corporation's listing on Nasdaq; and
- 8. the management information circular dated August 21, 2020 relating to Medicenna's annual meeting of shareholders held on September 30, 2020.

Material change reports (other than confidential reports), business acquisition reports, interim financial statements, annual financial statements, annual information forms and all other documents of the type required by National Instrument 44-101 — *Short Form Prospectus Distributions* to be incorporated by reference in a short form prospectus, filed by the Corporation with a securities commission or similar regulatory authority in Canada after the date of this Prospectus Supplement and before completion or withdrawal of the Offering, will be deemed to be incorporated by reference into this Prospectus Supplement.

In addition, to the extent that any document or information incorporated by reference into this Prospectus Supplement is included in any report on Form 6-K, Form 40-F or Form 20-F (or any respective successor form) that is filed with or furnished to the SEC by the Corporation after the date of this Prospectus Supplement, such document or information shall be deemed to be incorporated by reference as an exhibit to the U.S. Registration Statement of which this Prospectus Supplement forms a part. In addition, the Corporation may incorporate by reference into this Prospectus Supplement, or the U.S. Registration Statement of which it forms a part, other information from documents that the Corporation will file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, if and to the extent expressly provided therein.

Any statement contained in this Prospectus Supplement, the Prospectus or a document incorporated or deemed to be incorporated by reference in the Prospectus Supplement shall be deemed to be modified or superseded for the purposes of the Prospectus Supplement to the extent that a statement contained in this Prospectus Supplement or in any subsequently filed document which also is or is deemed to be incorporated by reference in this Prospectus Supplement modifies or supersedes that statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document or statement that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purpose that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus Supplement or the Prospectus.

DOCUMENTS FILED AS PART OF THE U.S. REGISTRATION STATEMENT

The following documents have been or will be filed with the SEC as part of the U.S. Registration Statement of which this Prospectus Supplement is a part insofar as required by the SEC's Form F-10:

- the documents listed under "Documents Incorporated by Reference" in this Prospectus Supplement;
- the Sales Agreement described in this Prospectus Supplement;
- the consent of Davidson & Company LLP, the Corporation's former independent auditors;
- the consent of McCarthy Tétrault LLP, the Corporation's Canadian counsel; and
- powers of attorney of the Corporation's directors and officers, as applicable.

EXCHANGE RATE INFORMATION

The consolidated financial statements incorporated by reference into this Prospectus Supplement and the other documents incorporated by reference into this Prospectus Supplement, and the financial data derived from those consolidated financial statements included in this Prospectus Supplement, are presented in Canadian dollars, unless otherwise specified, and have been prepared in accordance with IFRS.

The following table lists, for each period presented, the high and low exchange rates, the average of the exchange rates during the period indicated, and the exchange rates at the end of the period indicated, for one Canadian dollar, expressed in United States dollars, based on the closing exchange rate published by the Bank of Canada for the applicable periods.

| | Yea | Year ended March 31, | | |
|------------------------|----------|----------------------|----------|--|
| | 2020 | 2019 | 2018 | |
| High for the period | \$0.7710 | \$0.7967 | \$0.8245 | |
| Low for the period | \$0.6898 | \$0.7330 | \$0.7276 | |
| End of period | \$0.7049 | \$0.7483 | \$0.7756 | |
| Average for the period | \$0.7517 | \$0.7625 | \$0.7798 | |

On December 29, 2020, the closing exchange rate for one Canadian dollar, expressed in United States dollars, as reported by the Bank of Canada, was Cdn\$1.00 = US\$0.7809.

SUMMARY OF THE OFFERING

Issuer: Medicenna Therapeutics Corp.

Common Shares Offered by the

Common Shares having an aggregate offering price of up to

US\$25,000,000

Manner of Offering: "At-the-market" offering that may be made from time to time

through the Agent, as sales agent. See under the heading "*Plan of Distribution*" beginning on page S-23 of this Prospectus

Supplement.

Use of Proceeds: We intend to use the net proceeds of the Offering, if any, for

general corporate purposes including, but not limited, to working capital expenditures, research and development expenditures, and clinical trial expenditures. See "*Use of Proceeds*" in this Prospectus Supplement. The amounts actually expended for the purposes described above may vary significantly depending upon a number of factors, including those listed under the heading "*Risk Factors*" in this

Prospectus Supplement.

Nasdaq Symbol: MDNA
TSX Symbol: MDNA

Risk Factors: You should carefully read and consider the information set

forth under the heading "Risk Factors" beginning on page S-8 of this Prospectus Supplement and on page 17 of the

of this Prospectus Supplement and on page 17 of the Prospectus, and under similar headings in the other documents

that are filed after the date hereof and incorporated by

reference into this Prospectus Supplement.

The Agent may sell the Offered Shares in the United States only and such sales will only be made by transactions that are deemed to be an "at-the-market" offering as defined in Rule 415 under the Securities Act, including, without limitation, sales made directly on Nasdaq, or on any other existing trading market for the Common Shares in the United States. No Offered Shares will be offered or sold in Canada or on the TSX or any other trading markets in Canada. See "*Plan of Distribution*" in this Prospectus Supplement.

RISK FACTORS

Investing in the Offered Shares is speculative and involves a high degree of risk. You should carefully consider the risks set out below, in the Prospectus and the AIF, and the other documents incorporated by reference in this Prospectus Supplement, that summarize the risks that may materially affect the Corporation's business before making an investment in the Offered Shares. If any of these risks occur, the Corporation's business, results of operations or financial condition could be materially adversely affected. In that case, the trading price of the securities could decline, and you may lose all or part of your investment. The risks set out in the documents indicated above are not the only risks the Corporation faces. You should also refer to the other information set forth in this Prospectus Supplement as well as those incorporated by reference herein and therein, including financial statements and the related notes. The following are certain risks related to the Offering.

The Corporation's operations could be adversely affected by events outside of its control, such as natural disasters, wars or health epidemics.

The Corporation may be impacted by business interruptions resulting from pandemics and public health emergencies, including those related to COVID-19 coronavirus, geopolitical actions, including war and terrorism or natural disasters including earthquakes, typhoons, floods and fires. An outbreak of infectious disease, a pandemic or a similar public health threat, such as the outbreak of the novel coronavirus known as COVID-19, or a fear of any of the foregoing, could adversely impact the Corporation by causing operating, manufacturing supply chain, clinical trial and project development delays and disruptions, labour shortages, travel and shipping disruption and shutdowns (including as a result of government regulation and prevention measures) The Corporation may incur expenses or delays relating to such events outside of its control, which could have a material adverse impact on its business, ability to achieve stated milestones, operating results and financial condition. It is anticipated that the spread of COVID-19 and global measures to contain it, will have an impact on the Corporation, however it is challenging to quantify the potential magnitude of such impact at this time. The Corporation believes that ongoing COVID-19 restrictions could impact CROs and associated IND-enabling studies of MDNA11, CDMOs and manufacturing timelines for MDNA11, as well as the planned clinical development timelines of MDNA11 as subject recruitment for clinical trials is currently being impacted. However, the initiation of the clinical study is not planned until mid-calendar 2021 and it is not possible to predict the potential impact of subject recruitment at that time.

There is no certainty regarding the net proceeds, if any, that the Corporation will receive.

There is no certainty that any Offered Shares will be sold under the Offering or that the full offering amount of US\$25,000,000 will be raised under the Offering. The Agent has agreed to use its commercially reasonable efforts to sell, on the Corporation's behalf, the Offered Shares designated by the Corporation, but the Corporation is not required to request the sale of the maximum amount offered or any amount and, if the Corporation requests a sale, the Agent is not obligated to purchase any Offered Shares that are not sold. As a result of the Offering being made with no minimum amount and only as requested by the Corporation, the Corporation may raise substantially less than the maximum total offering amount or nothing at all.

The Corporation will have broad discretion over the use of the net proceeds from the Offering and the Corporation may not use these proceeds in a manner desired by the Corporation's shareholders.

It is expected that the net proceeds, if any, will be used in the manner discussed in "Use of Proceeds". However, the Corporation's management will have broad discretion concerning the use of the net proceeds of the Offering as well as the timing of their expenditures, and there can be no assurance as to how the funds will be allocated. The Corporation may reallocate the net proceeds of the Offering, if any, other than as described under the heading "Use of Proceeds" if management of the Corporation believes it would be in the Corporation's best interest to do so and in ways that a purchaser may not consider desirable. Until utilized, the net proceeds of the Offering., if any, will be invested by the Corporation in short-term interest bearing investment grade securities. As a result, a purchaser will be relying on the judgment of management of the Corporation for the application of the net proceeds of the Offering, if any. The results and the effectiveness of the application of the net proceeds are uncertain. If the net proceeds are not applied effectively, the

Corporation's business, financial condition and results of operations may suffer, which could adversely affect the price of the Common Shares on the open market.

The Offered Shares offered hereby will be sold in "at-the-market" offerings, and investors who buy Offered Shares at different times will likely pay different prices.

Investors who purchase Offered Shares in this Offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. The Corporation will have discretion, subject to market demand, to vary the timing, prices, and number of Offered Shares sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their Offered Shares as a result of share sales made at prices lower than the prices they paid.

The Corporation does not currently intend to pay any cash dividends on the Common Shares in the foreseeable future; therefore, the Corporation's shareholders may not be able to receive a return on their Common Shares until they sell them.

The Corporation has never paid or declared any cash dividends on its Common Shares. The Corporation does not anticipate paying any cash dividends on its Common Shares in the foreseeable future because, among other reasons, the Corporation currently intends to retain any future earnings to finance its business. The future payment of dividends will be dependent on factors such as cash on hand and achieving profitability, the financial requirements to fund growth, the Corporation's general financial condition and other factors the board of directors of the Corporation may consider appropriate in the circumstances. Until the Corporation pays dividends, which it may never do, its shareholders will not be able to receive a return on their Common Shares unless they sell them.

The Corporation's future success is dependent primarily on the regulatory approval of its product candidates, which are in clinical or preclinical development. Product development is a lengthy and expensive process with an uncertain outcome. The Corporation may incur unexpected costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of its product candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of the Corporation's product candidates are subject to extensive regulation by the United States Food and Drug Administration ("FDA") and by comparable foreign regulatory authorities in foreign markets. In the United States, the Corporation is not permitted to market its product candidates until it receives marketing authorization from the FDA. The process of obtaining marketing authorization is expensive, often takes many years following the commencement of clinical trials and can vary substantially based upon the type, complexity and novelty of the product candidates involved, as well as the target indications and patient population. Approval policies, laws, or regulations may change, and the FDA and comparable regulatory authorities have substantial discretion in the marketing authorization process, including the ability to delay, limit or deny marketing authorization of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, marketing authorization is never guaranteed.

The Corporation does not have any products that have gained regulatory approval. Currently, its only clinical product candidate is MDNA55. There can be no assurance that regulatory approval for any product candidate will be granted. To obtain the requisite regulatory approvals to market and sell any of its product candidates, the Corporation must demonstrate with substantial evidence gathered in preclinical and clinical studies to the satisfaction of the relevant regulatory authorities, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. Many of these factors are beyond the Corporation's control.

Further, MDNA55 is designed to be delivered through an intracranial procedure using a catheter, infusion pump, syringes, and extension tubing. Each of these products is regulated by the FDA as a medical device and subject to the regulatory framework applicable to medical devices, including the premarket review framework. Prior to obtaining approval for MDNA55, the Corporation or third parties must obtain authorization from the FDA for these devices to be used in connection with MDNA55 (if not already so authorized). In particular, the FDA permits commercial distribution of a new medical device, or new use of, new claim for or significant modification to an existing medical device only after the device has received

clearance under Section 510(k) of the *Federal Food*, *Drug and Cosmetic Act*, (United States) or is the subject of an approved premarket approval application, or premarket approval, unless the device is specifically exempt from those requirements. The process of obtaining regulatory clearances or approvals to market a medical device can be costly and time consuming, and the Corporation or other third parties may not be able to obtain these clearances or approvals on a timely basis, if at all. The FDA will not approve MDNA55 unless and until all required device authorizations have been obtained. Accordingly, failure to obtain required authorizations for these devices would have an adverse effect on the Corporation's ability to commercialize MDNA55.

If the Corporation, or its potential commercialization collaborators, are unable to successfully commercialize one or more of its product candidates and/or the devices with which the product candidates are intended to be administered, the Corporation may not be able to earn sufficient revenues to continue its business

If the Corporation is Treated as a Passive Foreign Investment Company, U.S. Holders may be Subject to Adverse U.S. Federal Income Tax Consequences.

Under the U.S. Internal Revenue Code of 1986, as amended (the "Code"), the Corporation will be classified as a passive foreign investment company ("PFIC") in respect of any taxable year in which either (i) 75% or more of the Corporation's gross income consists of certain types of "passive income" or (ii) 50% or more of the average quarterly value of the Corporation's assets is attributable to "passive assets" (assets that produce or are held for the production of passive income). For purposes of these tests, passive income includes dividends, interest, gains from the sale or exchange of investment property and certain rents and royalties. In addition, for purposes of the above calculations, if the Corporation directly or indirectly owns at least 25% by value of the shares of another corporation, the Corporation will be treated as if it held its proportionate share of the assets and received directly its proportionate share of the income of such other corporation. PFIC status is a factual determination that needs to be made annually after the close of each taxable year, on the basis of the composition of the Corporation's income, the relative value of the Corporation's active and passive assets, and the Corporation's market capitalization. For this purpose, the Corporation's PFIC status depends in part on the application of complex rules, which may be subject to differing interpretations, relating to the classification of the Corporation's income and assets. Based on the Corporation's interpretation of the law, its recent financial statements, and taking into account expectations about its income, assets and activities, the Corporation believes that it was a PFIC for the taxable year ended March 31, 2020, and expects that it will be a PFIC for the current taxable year.

If the Corporation is a PFIC for any taxable year during which a U.S. Holder (as defined below under "Certain U.S. Federal Income Tax Considerations") holds the Common Shares, the Corporation will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns the Common Shares, regardless of whether the Corporation continues to meet the PFIC test described above, unless the U.S. Holder makes a specified election once the Corporation ceases to be a PFIC. If the Corporation is classified as a PFIC for any taxable year during which a U.S. Holder holds the Common Shares, the U.S. Holder may be subject to adverse tax consequences regardless of whether the Corporation continues to qualify as a PFIC, including ineligibility for any preferred tax rates on capital gains or on actual or deemed dividends, interest charges on certain taxes treated as deferred, and additional reporting requirements. In certain circumstances, a U.S. Holder may alleviate some of the adverse tax consequences attributable to PFIC status by making either a "qualified electing fund," ("QEF") election or a mark-to-market election (if the Common Shares constitute "marketable" securities under the Code).

For further discussion of the PFIC rules and the adverse U.S. federal income tax consequences in the event the Corporation is classified as a PFIC, see the section of this Prospectus Supplement entitled "Certain U.S. Federal Income Tax Considerations".

There can be no assurance of an active or liquid market for the Common Shares.

No assurance can be given that an active or liquid trading market for the Common Shares will be sustained. If an active or liquid market for the Common Shares fails to be sustained, the prices at which such Common Shares trade may be adversely affected, and therefore the price at which the Offered Shares may be offered and sold in the Offering may be adversely affected. Whether or not the Common Shares will trade at lower prices depends on many factors, including the liquidity of the Common Shares, prevailing interest rates and the markets for similar securities, general economic conditions and the Company's financial condition, historic financial performance and future prospects.

DESCRIPTION OF THE BUSINESS

Medicenna is a clinical stage immuno-oncology 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 in order to generate Empowered Superkines that precisely deliver potent toxins to cancer cells without harming adjacent healthy cells. Medicenna seeks to become the leader in the development and commercialization of Superkines for the treatment of a broad range of cancers. The Corporation seeks to achieve its goals by drawing on its expertise, and that of world-class collaborators, in order to develop a unique set of therapeutic Superkines. Compared to naturally occurring cytokines — that bind to multiple receptor types on many cell types — Superkines are engineered with unique specificity toward defined target cell subsets to enable precise activation or inhibition of relevant immune cells in order to improve therapeutic efficacy and safety.

Medicenna has completed a Phase 2b clinical trial of MDNA55, Medicenna's lead Empowered Superkine, for the treatment of recurrent glioblastoma ("**rGBM**"), the most common and uniformly fatal form of brain cancer. MDNA55 is a fusion of a circularly permuted version of IL-4, fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin (PE), that is designed to preferentially target tumor cells that over-express the interleukin 4 receptor ("IL-4R"). MDNA55 has now been studied in 5 clinical trials in 132 subjects, including 112 subjects with rGBM, in which it has shown indications of potential superior efficacy when compared to the current standard of care ("SOC"). MDNA55 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. Medicenna announced on April 30, 2019 that enrollment was complete in the Phase 2b clinical trial of MDNA55 after treating 46 subjects with rGBM. Medicenna announced preliminary top line data from the study on June 18, 2019, and additional survival data in December 2019, January 2020 and May 2020. On September 29, 2020, Medicenna had its End of Phase 2 ("EOP2") meeting with the FDA, and provided an update on October 15, 2020 announcing that the FDA agreed that Medicenna may conduct an innovative open-label hybrid Phase 3 trial that allows use of a substantial number of subjects (two-thirds) from a matched external control arm to support regulatory approval of MDNA55 for rGBM. This hybrid trial design will reduce the overall number of subjects needed to enroll in the study to achieve the primary endpoint, and notably reduce the number of subjects that would be randomized to SOC treatment under a conventional 1:1 randomization. The Corporation is currently seeking a strategic partnership to assist with the additional clinical development of MDNA55.

Complementing Medicenna's lead clinical asset (MDNA55), the Corporation believes it has built a deep pipeline of promising preclinical Superkine candidates such as IL-2 agonists (MDNA109), IL-2 antagonists (MDNA209), dual IL-4/IL-13 antagonists (MDNA413) and IL-13 Superkine (MDNA132) all inlicensed from Leland Stanford Junior University ("Stanford"). The most advanced of these programs is the MDNA109 platform (MDNA11 and MDNA19), of which MDNA11 is in IND-enabling studies and the only genetically engineered IL-2 Superkine designed to specifically target CD122 (IL-2Rβ) with high affinity without CD25 dependency and therefore preferentially stimulates cancer killing effector T cells and natural killer ("NK") cells when compared to competing IL-2 programs, including recombinant human interleukin-2 (rhIL-2). Both MDNA11 and MDNA19, which unlike rhIL-2 (Proleukin), have superior pharmacokinetic properties, lack CD25 binding in order to improve safety, potently stimulate effector T cells, reverse NK cell anergy and can act with exceptional synergy when combined with checkpoint inhibitors. Based on the information publicly available, Medicenna believes that competing IL-2 variants are weaker CD122 binders.

MDNA19 and MDNA11 originate from the same base molecule engineered from the MDNA109 platform. This base molecule, MDNA109, has a very short half-life which would require frequent daily dosing and, therefore, would not be convenient for cancer patients. To address this issue, Medicenna fused both Fc (MDNA19) and albumin (MDNA11) to a mutated version of MDNA109 (MDNA109FEAA) with the effect of increasing the size of the molecule and its half-life while maintaining high CD122 selectivity and blunted CD25 affinity.

Medicenna completed pilot non-human primate studies where adult cynomolgus monkeys received two doses of MDNA11 or MDNA19 and were monitored over a period of 28 days. We believe the results of the

non-human primate studies suggest that with MDNA11 or MDNA19 treatment, the target Ki67 expression of over 50% is demonstrated, and a significant expansion in cancer-fighting immune cells is induced, without expansion of regulatory T-cells (Tregs), generating anti-drug antibodies, causing hypotension associated with vascular leak syndrome, cytokine release syndrome, or other undesirable immune mediated side effects.

After completing the pilot non-human primate studies with both MDNA19 and MDNA11, it became apparent that MDNA11 was the more promising molecule and has, therefore, been selected as the lead IL-2 candidate to advance into clinical development over MDNA19. Medicenna is working towards initiating a Phase 1 clinical study for MDNA11 in mid-2021. Medicenna currently does not have the intention or the resources to advance the clinical development of MDNA19 in parallel with MDNA11 but MDNA19, which was previously identified as the Corporation's lead IL-2 candidate, remains relevant for Medicenna because it is derived from the same platform as MDNA11 and could also be moved to clinical development in certain circumstances following additional protein design.

For further information, see "General Development of the Business" and "Narrative Description of the Business" in the AIF.

USE OF PROCEEDS

The net proceeds from the Offering, if any, are not determinable in light of the nature of the distribution. The net proceeds of any given distribution of Offered Shares through the Agent in an "at-the-market offering" will represent the gross proceeds after deducting the compensation payable to the Agent under the Sales Agreement and expenses of the distribution. The Agent will receive a cash fee not exceeding three percent (3.0%) of the gross proceeds realized from the sale of the Offered Shares for services rendered in connection with the Offering. The Corporation estimates the total expenses of this Offering, excluding the fee paid to the Agent, will be approximately US\$200,000. All expenses relating to the Offering will be paid out of the proceeds from the sale of Offered Shares, unless otherwise stated in this Prospectus Supplement.

We had a negative cash flow from operating activities of approximately Cdn\$9.0 million during the year ended March 31, 2020 and Cdn\$9.1 million for the six-month period ended September 30, 2020. We anticipate that we will continue to have negative cash flow for the foreseeable future and expect to spend the totality of the net proceeds of the Offering, if any, to fund such negative cash flow. The Corporation may sell Offered Shares for aggregate gross proceeds of up to US\$25,000,000. Because there is no minimum amount of Offered Shares that must be sold pursuant to the Offering, the actual number of Offered Shares sold and aggregate proceeds to the Corporation, if any, are not presently determinable and may be substantially less than the amounts set forth above.

The Corporation intends to use the net proceeds of the Offering, if any, for general corporate purposes including, but not limited, to working capital expenditures, research and development expenditures, and clinical trial expenditures.

While the Corporation intends to spend the net proceeds of the Offering, if any, as stated above, there may be circumstances where, for sound business reasons, a re-allocation of funds may be necessary or advisable. The actual amount that the Corporation spends in connection with the intended uses of proceeds may vary significantly, and will depend on a number of factors, including those listed under the heading "Risk Factors" in this Prospectus Supplement and the accompanying Prospectus and the documents incorporated by reference herein and therein.

DESCRIPTION OF THE OFFERED SHARES

The Corporation is authorized to issue an unlimited number of Common Shares. The holders of Common Shares are entitled to receive notice of and to attend all meetings of the Corporation's shareholders and to one vote in respect of each Common Share held at the record date for each such meeting. The holders of Common Shares are entitled to receive, if, as and when declared by the Corporation's board of directors, dividends in such amounts as shall be determined by the board. The holders of the Common Shares will participate pro rata in any distribution of the assets of the Corporation upon liquidation, dissolution or winding up or other distribution of the assets of the Corporation. Such participation will be subject to the

rights, privileges, restrictions and conditions attached to any of the Corporation's securities issued and outstanding at such time ranking in priority to the Common Shares upon the liquidation, dissolution or winding up of the Corporation. Common Shares are issued only as fully paid and are non-assessable.

CONSOLIDATED CAPITALIZATION

Except as otherwise disclosed in this Prospectus Supplement, the Prospectus and the documents incorporated by reference herein and therein, there have been no material changes in the consolidated share and loan capital of the Corporation from September 30, 2020 to the date of this Prospectus Supplement.

TRADING PRICE AND VOLUME

The Common Shares are listed for trading on the TSX under the symbol "MDNA" and on Nasdaq under the trading symbol "MDNA". On December 29, 2020, the closing price of the Common Shares on Nasdaq was US\$4.68 per Common Share and on the TSX was \$6.00 per Common Share. The Corporation began trading on the Nasdaq on August 24, 2020.

The following table shows the high and low trading prices and the aggregate volume of Common Shares traded on the TSX and Nasdaq for the periods indicated:

| | | TSX | | | Nasdaq | | |
|---------------|------|------|-----------|--------|--------|-----------|--|
| | High | Low | Volume | High | Low | Volume | |
| Month | (\$) | (\$) | (Shares) | (US\$) | (US\$) | (Shares) | |
| <u>2019</u> | | | | | | | |
| December | 3.87 | 1.30 | 3,524,777 | N/A | N/A | N/A | |
| <u>2020</u> | | | | | | | |
| January | 3.78 | 2.41 | 3,596,527 | N/A | N/A | N/A | |
| February | 4.86 | 2.77 | 2,365,899 | N/A | N/A | N/A | |
| March | 4.12 | 2.15 | 5,105,194 | N/A | N/A | N/A | |
| April | 3.88 | 3.14 | 1,341,227 | N/A | N/A | N/A | |
| May | 7.24 | 3.06 | 2,703,289 | N/A | N/A | N/A | |
| June | 7.25 | 4.75 | 1,813,710 | N/A | N/A | N/A | |
| July | 6.49 | 4.89 | 1,140,975 | N/A | N/A | N/A | |
| August | 6.60 | 4.95 | 999,277 | 5.03 | 4.02 | 325,090 | |
| September | 5.80 | 4.63 | 702,866 | 4.56 | 3.47 | 947,283 | |
| October | 6.07 | 4.91 | 846,684 | 4.80 | 3.69 | 2,207,679 | |
| November | 5.80 | 4.75 | 639,854 | 4.43 | 3.62 | 1,137,500 | |
| December 1-29 | 7.02 | 4.75 | 2,232,723 | 6.84 | 3.70 | 4,815,503 | |

PRIOR SALES

The following tables summarize the Common Shares or securities convertible into, or exercisable to acquire, Common Shares that have been issued by the Corporation during the 12 months prior to the date of this Prospectus Supplement.

Common Shares

| Date | Price per Common Share | Number of Common Shares Issued |
|-------------------|---------------------------|--------------------------------------|
| December 23, 2019 | \$1.30 | 15,000 ⁽⁴⁾ |
| December 23, 2019 | \$1.75 | 17,500 ⁽³⁾ |
| December 23, 2019 | \$1.20 | 75,000 ⁽¹⁾ |
| December 24, 2019 | \$1.75 | 79,050 ⁽³⁾ |
| December 24, 2019 | \$1.20 | 7,500 ⁽¹⁾ |
| December 30, 2019 | \$1.75 | 18,861 ⁽³⁾ |
| December 31, 2019 | \$1.20 | 14,500 ⁽¹⁾ |
| December 31, 2019 | \$1.75 | 222,900 ⁽³⁾ |
| January 2, 2020 | \$1.75 | 32,650 ⁽³⁾ |
| January 2, 2020 | \$1.20 | 80,000 ⁽¹⁾ |
| January 2, 2020 | \$2.00 | $35,000^{(5)}$ |
| January 3, 2020 | \$1.20 | 102,000 ⁽¹⁾ |
| January 3, 2020 | \$1.75 | $3,000^{(3)}$ |
| January 6, 2020 | \$1.75 | 22,651 ⁽³⁾ |
| January 9, 2020 | \$1.75 | $1,000^{(3)}$ |
| January 10, 2020 | \$1.75 | 1,950 ⁽³⁾ |
| January 14, 2020 | \$1.30 | 5,850 ⁽⁴⁾ |
| January 15, 2020 | \$1.20 | 15,000 ⁽¹⁾ |
| January 16, 2020 | \$1.75 | 8,517 ⁽³⁾ |
| January 17, 2020 | \$1.20 | 1,750 ⁽¹⁾ |
| January 17, 2020 | \$1.75 | 3,812 ⁽³⁾ |
| January 20, 2020 | \$1.75 | 2,250 ⁽³⁾ |
| January 21, 2020 | \$1.20 | $2,500^{(1)}$ |
| January 21, 2020 | \$1.75 | 1,350 ⁽³⁾ |
| January 22, 2020 | \$1.75 | 1,722 ⁽³⁾ |
| January 23, 2020 | \$1.20 | 5,000 ⁽¹⁾ |
| January 23, 2020 | \$1.75 | $4,500^{(3)}$ |
| January 24, 2020 | \$1.30 | 5,000 ⁽⁴⁾ |
| January 24, 2020 | \$1.20 | 165,125 ⁽¹⁾ |
| January 27, 2020 | \$1.75 | 9,450 ⁽³⁾ |
| January 28, 2020 | \$1.75 | $2,650^{(3)}$ |
| January 29, 2020 | \$1.20 | 6,250 ⁽¹⁾ |
| January 30, 2020 | \$1.20 | $220^{(1)}$ |
| January 30, 2020 | \$1.75 | 2,132 ⁽³⁾ |
| February 3, 2020 | \$1.75 | 32,012 ⁽³⁾ |
| February 11, 2020 | \$1.75 | 42,900 ⁽³⁾ |
| February 12, 2020 | \$1.75 | $9,500^{(3)}$ |
| February 13, 2020 | \$1.75 | 1,587 ⁽³⁾ |
| February 14, 2020 | \$1.75 | $2,000^{(3)}$ |
| February 19, 2020 | \$1.75 | 5,000 ⁽³⁾ |
| February 19, 2020 | \$1.20 | 5,000 ⁽¹⁾ |
| February 21, 2020 | \$1.75 | 8,600 ⁽³⁾ |
| February 25, 2020 | \$1.75 | 15,000 ⁽³⁾ |

| Date | Price per Common Share | Number of Common Shares Issued |
|--------------------|---------------------------|--------------------------------------|
| February 26, 2020 | \$1.20 | 25,000 ⁽¹⁾ |
| February 26, 2020 | \$1.75 | 5,000 ⁽³⁾ |
| February 27, 2020 | \$1.75 | 5,000 ⁽³⁾ |
| March 2, 2020 | \$1.75 | 3,000 ⁽³⁾ |
| March 3, 2020 | \$1.30 | 110,556 ⁽⁴⁾ |
| March 17, 2020 | \$3.10 | 11,290,323 ⁽⁶⁾ |
| March 31, 2020 | \$1.30 | 2,225 ⁽⁴⁾ |
| April 9, 2020 | \$1.30 | $2,500^{(4)}$ |
| April 15, 2020 | \$3.10 | 1,693,548 ⁽⁶⁾ |
| May 8, 2020 | \$1.75 | 4,500 ⁽³⁾ |
| May 15, 2020 | \$1.30 | 112,759 ⁽⁴⁾ |
| May 21, 2020 | \$3.10 | 9,675 ⁽⁷⁾ |
| May 21, 2020 | \$1.20 | 50,000 ⁽¹⁾ |
| June 2, 2020 | \$1.30 | 13,750 ⁽⁴⁾ |
| June 2, 2020 | \$3.10 | 90,000 ⁽⁷⁾ |
| June 2, 2020 | \$1.00 | 21,423 ⁽²⁾ |
| July 3, 2020 | \$1.20 | 15,000 ⁽¹⁾ |
| July 20, 2020 | \$1.75 | 1,950 ⁽³⁾ |
| August 12, 2020 | \$1.30 | 1,250 ⁽⁴⁾ |
| August 12, 2020 | \$3.10 | 463 ⁽⁷⁾ |
| August 21, 2020 | \$1.75 | $9,400^{(3)}$ |
| August 21, 2020 | \$1.30 | 750 ⁽⁴⁾ |
| August 21, 2020 | \$3.10 | 20,230 ⁽⁷⁾ |
| September 1, 2020 | \$1.00 | 36,088 ⁽²⁾ |
| September 3, 2020 | \$1.30 | 2,500 ⁽⁴⁾ |
| September 8, 2020 | \$2.00 | 14,898 ⁽²⁾ |
| September 21, 2020 | \$1.75 | 21,122 ⁽³⁾ |
| September 23, 2020 | \$1.00 | 1,153 ⁽²⁾ |
| September 23, 2020 | \$3.10 | 1,250 ⁽⁷⁾ |
| October 23, 2020 | \$1.20 | 50,000 ⁽¹⁾ |
| November 5, 2020 | \$1.75 | 7,692 ⁽³⁾ |
| November 5, 2020 | \$3.10 | 17,092 ⁽⁷⁾ |
| November 16, 2020 | \$1.20 | 57,500 ⁽¹⁾ |
| November 18, 2020 | \$1.75 | 4,750 ⁽³⁾ |
| December 9, 2020 | \$1.75 | 9,615 ⁽³⁾ |
| December 9, 2020 | \$1.00 | 20,029 ⁽²⁾ |
| December 10, 2020 | \$1.75 | 15,385 ⁽³⁾ |
| December 16, 2020 | \$1.75 | 26,146 ⁽³⁾ |
| December 16, 2020 | \$2.00 | 1,379,083 ⁽²⁾ |
| December 30, 2020 | | 30,770 ⁽³⁾ |
| December 50, 2020 | \$1.75 | 30,770` |

Notes:

 $^{(1) \ \} Is sued pursuant to the exercise of warrants originally is sued on December 21, 2018.$

⁽²⁾ Issued pursuant to a consulting agreement dated January 1, 2017.

- (3) Issued pursuant to the exercise of warrants originally issued pursuant to public offering of units (the "2019 Public Offering").
- (4) Issued pursuant to the exercise of broker warrants originally issued pursuant to the 2019 Public Offering.
- (5) Issued pursuant to the exercise of warrants originally issued pursuant to private placements completed in 2016.
- (6) Issued pursuant to the 2020 Public Offering.
- (7) Issued pursuant to the exercise of broker warrants originally issued pursuant to the 2020 Public Offering.

Warrants/Compensation Options

| Date | Exercise Price | Number of Warrants/ Compensation Options Issued |
|----------------|----------------|---|
| March 17, 2020 | \$3.10 | 790,323 ⁽⁸⁾ |
| April 15, 2020 | \$3.10 | 118,548 ⁽⁸⁾ |

Notes:

(8) Compensation options entitling the holders thereof to purchase Common Shares at a price of \$3.10 per Common Share until March 17, 2022 pursuant to the 2020 Public Offering.

Stock Options⁽⁹⁾

| Date | Price (\$) | Options Granted |
|------------------|------------|-----------------|
| November 3, 2020 | \$5.11 | 280,084 |

Note:

(9) Granted pursuant to the Corporation's stock option plan.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

Subject to the limitations and qualifications stated herein, this discussion sets forth material U.S. federal income tax considerations relating to the acquisition, ownership and disposition by U.S. Holders (as hereinafter defined) of the Common Shares. The discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), its legislative history, existing and proposed regulations thereunder, published rulings and court decisions, and the Canada-United States Income Tax Convention (1980) as amended (the "Treaty") all as currently in effect and all subject to change at any time, possibly with retroactive effect. This summary applies only to U.S. Holders. This discussion of a U.S. Holder's tax consequences addresses only those persons that acquire Common Shares in this Offering and that hold those Common Shares as capital assets (generally, property held for investment). In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including state and local tax consequences, estate and gift tax consequences, alternative minimum tax consequences, and tax consequences applicable to U.S. Holders subject to special rules, such as:

- banks, insurance companies, and certain other financial institutions;
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- dealers or traders in securities who use a mark-to-market method of tax accounting;
- persons holding Common Shares as part of a hedging transaction, "straddle," wash sale, conversion transaction or integrated transaction or persons entering into a constructive sale with respect to Common Shares;
- persons whose "functional currency" for U.S. federal income tax purposes is not the U.S. dollar;
- · brokers, dealers or traders in securities, commodities or currencies;
- · tax-exempt entities or government organizations;
- S corporations, partnerships, or other entities or arrangements classified as partnerships for U.S. federal income tax purposes;
- regulated investment companies or real estate investment trusts;
- persons who acquired the Common Shares pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons required to accelerate the recognition of any item of gross income with respect to the Common Shares as a result of such income being recognized on an applicable financial statement;
- persons holding the Common Shares in connection with a trade or business, permanent establishment, or fixed base outside the United States; and
- persons who own (directly or through attribution) 10% or more (by vote or value) of the outstanding Common Shares.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds Common Shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Partnerships holding Common Shares and partners in such partnerships are encouraged to consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of Common Shares.

A "U.S. Holder" is a holder who, for U.S. federal income tax purposes, is a beneficial owner of Common Shares and is:

- An individual who is a citizen or individual resident of United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

• a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect to be treated as a U.S. person under applicable U.S. Treasury Regulations.

PERSONS CONSIDERING AN INVESTMENT IN COMMON SHARES SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES APPLICABLE TO THEM RELATING TO THE ACQUISITION, OWNERSHIP AND DISPOSITION OF THE COMMON SHARES, INCLUDING THE APPLICABILITY OF U.S. FEDERAL, STATE AND LOCAL TAX LAWS.

Passive Foreign Investment Company Rules

If the Corporation is classified as a PFIC in any taxable year, a U.S. Holder will be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. Holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A non-U.S. corporation will be classified as a PFIC for any taxable year in which, after applying certain look-through rules, either:

- at least 75% of its gross income is passive income (such as interest income); or
- at least 50% of its gross assets (determined on the basis of a quarterly average) is attributable to assets that produce passive income or are held for the production of passive income.

The Corporation will be treated as owning its proportionate share of the assets and earning its proportionate share of the income of any other corporation, the equity of which it owns, directly or indirectly, 25% or more (by value).

Based on the Corporation's interpretation of the law, the Corporation's recent financial statements, and taking into account expectations about the Corporation's income, assets and activities, the Corporation believes that it was a PFIC for the taxable year ended March 31, 2020 and expects that it will be a PFIC for the current taxable year. The determination of whether the Corporation is a PFIC for the current taxable year will depend, in part, on whether the Corporation receives government grants (including certain grants awarded by CPRIT) during the taxable year ended March 31, 2021, and the Corporation's determination of whether such grants (if received) constitute passive income for PFIC testing purposes. A separate determination must be made after the close of each taxable year as to whether the Corporation is a PFIC for that year, and as a result, its PFIC status may change from year to year. The total value of the Corporation's assets for purposes of the asset test generally will be calculated using the market price of the Common Shares, which may fluctuate considerably. Fluctuations in the market price of the Common Shares may result in the Corporation's being a PFIC for any taxable year. Because of the uncertainties involved in establishing the Corporation's PFIC status, there can be no assurance regarding if the Corporation currently is treated as a PFIC, or may be treated as a PFIC in the future.

If the Corporation is classified as a PFIC in any year with respect to which a U.S. Holder owns the Common Shares, the Corporation will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns the Common Shares, regardless of whether the Corporation continues to meet the tests described above unless (i) the Corporation ceases to be a PFIC and the U.S. Holder has made a "deemed sale" election under the PFIC rules, or (ii) the U.S. Holder makes a Qualified Electing Fund Election ("QEF Election") with respect to all taxable years during such U.S. Holders' holding period in which the Corporation is a PFIC. If the "deemed sale" election is made, a U.S. Holder will be deemed to have sold the Common Shares the U.S. Holder holds at their fair market value and any gain from such deemed sale would be subject to the rules described below. After the deemed sale election, so long as the Corporation does not become a PFIC in a subsequent taxable year, the U.S. Holder's Common Shares with respect to which such election was made will not be treated as shares in a PFIC and the U.S. Holder will not be subject to the rules described below with respect to any "excess distribution" the U.S. Holder receives from us or any gain from an actual sale or other disposition of the Common Shares. U.S.

Holders should consult their tax advisors as to the possibility and consequences of making a deemed sale election if the Corporation ceases to be a PFIC and such election becomes available.

For each taxable year the Corporation is treated as a PFIC with respect to a U.S. Holder, such U.S. Holder will be subject to special tax rules with respect to any "excess distribution" such U.S. Holder receives and any gain such U.S. Holder recognizes from a sale or other disposition (including, under certain circumstances, a pledge) of Common Shares, unless (i) such U.S. Holder makes a QEF Election or (ii) the Common Shares constitute "marketable" securities, and such U.S. Holder makes a mark-to-market election as discussed below. Absent the making of a QEF Election or a mark-to-market election, distributions a U.S. Holder receives in a taxable year that are greater than 125% of the average annual distributions a U.S. Holder received during the shorter of the three preceding taxable years or the U.S. Holder's holding period for the Common Shares will be treated as an excess distribution. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over a U.S. Holder's holding period for the Common Shares;
- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which the Corporation became a PFIC, will be treated as ordinary income; and
- the amount allocated to each other year will be subject to the highest tax rate in effect for that year and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

The tax liability for amounts allocated to years prior to the year of disposition or "excess distribution" cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the Common Shares cannot be treated as capital, even if a U.S. Holder holds the Common Shares as capital assets.

In addition, if the Corporation is a PFIC, a U.S. Holder will generally be subject to similar rules with respect to distributions the Corporation receives from, and the Corporation's dispositions of the stock of, any of the Corporation's direct or indirect subsidiaries that also are PFICs, as if such distributions were indirectly received by, and/or dispositions were indirectly carried out by, such U.S. Holder. U.S. Holders should consult their tax advisors regarding the application of the PFIC rules to the Corporation's subsidiaries.

If a U.S. Holder makes an effective QEF Election, the U.S. Holder will be required to include in gross income each year, whether or not the Corporation makes distributions, as capital gains, such U.S. Holder's pro rata share of the Corporation's net capital gains and, as ordinary income, such U.S. Holder's pro rata share of the Corporation's earnings in excess of the Corporation's net capital gains. If the Corporation determines that it is a PFIC for this year or any future taxable year, the Corporation currently expects that it would provide the information necessary for U.S. Holders to make a QEF Election.

U.S. Holders also can avoid the interest charge on excess distributions or gain relating to the Common Shares by making a mark-to-market election with respect to the Common Shares, provided that the Common Shares are "marketable." Common Shares will be marketable if they are "regularly traded" on certain U.S. stock exchanges or on a foreign stock exchange that meets certain conditions. For these purposes, the Common Shares will be considered regularly traded during any calendar year during which they are traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. Any trades that have as their principal purpose meeting this requirement will be disregarded. The Common Shares are listed on the Nasdaq and the TSX, which are qualified exchanges for these purposes. Consequently, if the Common Shares remain listed on the Nasdaq or the TSX and are regularly traded, and you are a holder of Common Shares, the Corporation expects the mark-to-market election would be available to U.S. Holders if the Corporation is a PFIC. Each U.S. Holder should consult its tax advisor as to the whether a mark-to-market election is available or advisable with respect to the Common Shares.

A U.S. Holder that makes a mark-to-market election must include in ordinary income for each year an amount equal to the excess, if any, of the fair market value of the Common Shares at the close of the taxable year over the U.S. Holder's adjusted tax basis in the Common Shares. An electing holder may also claim an ordinary loss deduction for the excess, if any, of the U.S. Holder's adjusted basis in the Common Shares over the fair market value of the Common Shares at the close of the taxable year, but this deduction is

allowable only to the extent of any net mark-to-market gains for prior years. Gains from an actual sale or other disposition of the Common Shares will be treated as ordinary income, and any losses incurred on a sale or other disposition of the shares will be treated as an ordinary loss to the extent of any net mark-to-market gains for prior years. Once made, the election cannot be revoked without the consent of the Internal Revenue Service (the "**IRS**"), unless the Common Shares cease to be marketable.

However, a mark-to-market election generally cannot be made for equity interests in any lower-tier PFICs that we own, unless shares of such lower-tier PFIC are themselves "marketable." As a result, even if a U.S. Holder validly makes a mark-to-market election with respect to the Common Shares, the U.S. Holder may continue to be subject to the PFIC rules (described above) with respect to its indirect interest in any of the Corporation's investments that are treated as an equity interest in a PFIC for U.S. federal income tax purposes. U.S. Holders should consult their tax advisors to determine whether any of these elections would be available and if so, what the consequences of the alternative treatments would be in their particular circumstances.

Unless otherwise provided by the United States Treasury Department (the "U.S. Treasury"), each U.S. shareholder of a PFIC is required to file an annual report containing such information as the U.S. Treasury may require. A U.S. Holder's failure to file the annual report will cause the statute of limitations for such U.S. Holder's U.S. federal income tax return to remain open with regard to the items required to be included in such report until three years after the U.S. Holder files the annual report, and, unless such failure is due to reasonable cause and not willful neglect, the statute of limitations for the U.S. Holder's entire U.S. federal income tax return will remain open during such period. U.S. Holders should consult their tax advisors regarding the requirements of filing such information returns under these rules.

WE STRONGLY URGE YOU TO CONSULT YOUR TAX ADVISOR REGARDING THE IMPACT OF THE CORPORATION'S PFIC STATUS ON YOUR INVESTMENT IN THE COMMON SHARES AS WELL AS THE APPLICATION OF THE PFIC RULES TO YOUR INVESTMENT IN THE COMMON SHARES.

Cash Dividends and Other Distributions

Subject to the discussion under "Passive Foreign Investment Company Rules" above, to the extent there are any distributions made with respect to the Common Shares, a U.S. Holder generally will be required to include in its gross income distributions received with respect to its Common Shares (including the amount of Canadian taxes withheld, if any) as dividend income, but only to the extent that the distribution is paid out of the Corporation's current or accumulated earnings and profits (computed using U.S. federal income tax principles), with the excess treated first as a non-taxable return of capital to the extent of the holder's adjusted tax basis in its Common Shares and, thereafter, as capital gain recognized on a sale or exchange on the day actually or constructively received by the holder (as described below under "Sale or Disposition of Common Shares"). There can be no assurance that the Corporation will maintain calculations of the Corporation's earnings and profits in accordance with U.S. federal income tax accounting principles. U.S. Holders should therefore assume that any distribution with respect to the Common Shares will constitute ordinary dividend income. Dividends paid on the Common Shares will not be eligible for the dividends received deduction allowed to U.S. corporations.

Dividends paid to a non-corporate U.S. Holder by a "qualified foreign corporation" may be subject to reduced rates of taxation if certain holding period and other requirements are met. A qualified foreign corporation generally includes a foreign corporation if (i) its Common Shares are readily tradable on an established securities market in the United States or it is eligible for benefits under a comprehensive U.S. income tax treaty that includes an exchange of information program and which the U.S. Treasury has determined is satisfactory for these purposes and (ii) if such foreign corporation is not a PFIC (as discussed above) for either the taxable year in which the dividend is paid or the preceding taxable year. The Common Shares are readily tradable on the Nasdaq, an established securities market in the United States, and the Corporation may be eligible for the benefits of the Treaty. Accordingly, subject to the PFIC rules discussed above, a non-corporate U.S. Holder may qualify for the reduced rate on dividends so long as the applicable holding period requirements are met. U.S. Holders should consult their own tax advisors regarding the availability of the reduced tax rate on dividends in light of their particular circumstances.

Distributions paid in a currency other than U.S. dollars will be included in a U.S. Holder's gross income in a U.S. dollar amount based on the spot exchange rate in effect on the date of actual or constructive receipt, whether or not the payment is converted into U.S. dollars at that time. The U.S. Holder will have a tax basis in such currency equal to such U.S. dollar amount, and any gain or loss recognized upon a subsequent sale or conversion of the foreign currency for a different U.S. dollar amount will generally be U.S. source ordinary income or loss.

If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder generally should generally not be required to recognize foreign currency gain or loss in respect of the dividend income.

If a U.S. Holder is subject to Canadian withholding taxes (at the rate applicable to such U.S. Holder) with respect to dividends paid on the Common Shares, such U.S. Holder may be entitled to receive either a deduction or a foreign tax credit for such Canadian taxes paid. Complex limitations apply to the foreign tax credit. Dividends paid by us generally will constitute "foreign source" income and generally will be categorized as "passive category income." Because the foreign tax credit rules are complex, each U.S. Holder should consult its own tax advisor regarding the foreign tax credit rules.

Sale or Disposition of Common Shares

A U.S. Holder generally will recognize gain or loss on the taxable sale or exchange of the Common Shares in an amount equal to the difference between the U.S. dollar amount realized on such sale or exchange (determined in the case of the Common Shares sold or exchanged for currencies other than U.S. dollars by reference to the spot exchange rate in effect on the date of the sale or exchange or, if the Common Shares sold or exchanged are traded on an established securities market and the U.S. Holder is a cash basis taxpayer or an electing accrual basis taxpayer, which election must be applied consistently from year to year and cannot be changed without the consent of the IRS, the spot exchange rate in effect on the settlement date) and the U.S. Holder's adjusted tax basis in the Common Shares determined in U.S. dollars. The initial tax basis of the Common Shares to a U.S. Holder will be the U.S. Holder's U.S. dollar purchase price for the Common Shares (determined by reference to the spot exchange rate in effect on the date of the purchase, or if the Common Shares purchased are traded on an established securities market and the U.S. Holder is a cash basis taxpayer or an electing accrual basis taxpayer, which election must be applied consistently from year to year and cannot be changed without the consent of the IRS, the spot exchange rate in effect on the settlement date). An accrual basis U.S. Holder that does not make the special election will recognize exchange gain or loss to the extent attributable to the difference between the exchange rates on the sale date and the settlement date, and such exchange gain or loss generally will constitute ordinary income or loss.

Subject to the discussion under "Passive Foreign Investment Company Rules" above, such gain or loss will be capital gain or loss and will be long-term gain or loss if the Common Shares have been held for more than one year. Under current law, long-term capital gains of non-corporate U.S. Holders generally are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations. Capital gain or loss, if any, recognized by a U.S. Holder generally will be treated as U.S. source income or loss for U.S. foreign tax credit purposes. U.S. Holders are encouraged to consult their own tax advisors regarding the availability of the U.S. foreign tax credit in their particular circumstances.

Medicare Contribution Tax

Certain U.S. Holders that are individuals, estates or certain trusts must pay a 3.8% tax, or "Medicare contribution tax", on their "net investment income." Net investment income generally includes, among other things, dividend income and net gains from the disposition of stock. A U.S. Holder that is an individual, estate or trust should consult its tax advisor regarding the applicability of the Medicare contribution tax to its income and gains in respect of its investment in the Common Shares.

Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of

backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding on a duly executed IRS Form W-9 or otherwise establishes an exemption.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that the required information is timely furnished to the IRS.

Certain Reporting Requirements

U.S. Holders paying more than US\$100,000 for the Common Shares generally may be required to file IRS Form 926 reporting the payment of the offer price for the Common Shares to us. Substantial penalties may be imposed upon a U.S. Holder that fails to comply. Each U.S. Holder should consult its own tax advisor as to the possible obligation to file IRS Form 926.

Information with Respect to Foreign Financial Assets

Certain U.S. Holders who are individuals (and, under regulations, certain entities) may be required to report information relating to the Common Shares, subject to certain exceptions (including an exception for Common Shares held in accounts maintained by certain U.S. financial institutions), by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. Such U.S. Holders who fail to timely furnish the required information may be subject to a penalty. Additionally, if a U.S. Holder does not file the required information, the statute of limitations with respect to tax returns of the U.S. Holder to which the information relates may not close until three years after such information is filed. U.S. Holders should consult their tax advisers regarding their reporting obligations with respect to their ownership and disposition of the Common Shares.

CERTAIN CANADIAN FEDERAL INCOME TAX CONSIDERATIONS

In the opinion of McCarthy Tétrault LLP, counsel to the Corporation, the following is, as of the date of this Prospectus Supplement, a summary of the principal Canadian federal income tax considerations under the *Income Tax Act* (Canada) ("**Tax Act**") and the regulations thereunder generally applicable to an investor who acquires as beneficial owner Offered Shares pursuant to the Offering and who, for the purposes of the Tax Act and at all relevant times deals at arm's length with the Corporation and the Agent, is not affiliated with the Corporation or the Agent (a "**Holder**"). Generally, the Offered Shares will be considered to be capital property to a Holder provided that the Holder does not use such Offered Shares in the course of carrying on a business of trading or dealing in securities and such Holder has not acquired them or deemed to have acquired them in one or more transactions considered to be an adventure or concern in the nature of trade.

The following section of this summary is generally applicable to Holders who for the purposes of the Tax Act and any applicable income tax treaty and at all relevant times, (i) are neither resident nor deemed to be resident in Canada and (ii) do not use or hold, and will not be deemed to use or hold, the Offered Shares in connection with, or in the course of carrying on, a business in Canada ("Non-Resident Holders"). This summary does not apply to a Non-Resident Holder that is (i) an insurer carrying on business in Canada and elsewhere or (ii) that is an "authorized foreign bank" (as defined in the Tax Act). Such Non-Resident Holders should consult their own tax advisors.

This summary is based upon the current provisions of the Tax Act and the regulations thereunder in force as of the date hereof (the "**Regulations**") and counsel's understanding of the administrative policies and assessing practices of the Canada Revenue Agency (the "**CRA**") published in writing by the CRA prior to the date hereof. This summary takes into account all specific proposals to amend the Tax Act and the Regulations publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date hereof (the "**Tax Proposals**") and assumes that the Tax Proposals will be enacted in the form proposed, although no assurance can be given that the Tax Proposals will be enacted in their current form or at all. Other than the Tax Proposals, this summary does not otherwise take into account or anticipate any changes in law, whether by legislative, governmental, administrative or judicial decision or action, nor does it take into account or consider any provincial, territorial or foreign income tax considerations, which considerations may differ significantly from the Canadian federal income tax considerations discussed in this summary. This summary also does not take into account any change in the administrative policies or assessing practices of the CRA.

This summary is of a general nature only, is not exhaustive of all possible Canadian federal income tax considerations and is not intended to be, nor should it be construed to be, legal or tax advice to any particular Non-Resident Holder. Non-Resident Holders should consult their own tax advisors with respect to their particular circumstances.

Currency

For purposes of the Tax Act, all amounts relating to the acquisition, holding or disposition of the Offered Shares (including dividends, adjusted cost base and proceeds of disposition) must be expressed in Canadian dollars based on the rate as quoted by the Bank of Canada for the applicable day or such other rate of exchange that is acceptable to the CRA.

Dividends on Offered Shares

Dividends paid or credited or deemed to be paid or credited to a Non-Resident Holder by the Corporation are subject to Canadian withholding tax at the rate of 25% on the gross amount of the dividend unless such rate is reduced by the terms of an applicable tax treaty. For example, under the *Canada-United States Tax Convention* (1980), as amended (the "**Treaty**"), the rate of withholding tax on dividends paid or credited to a Non-Resident Holder beneficially owning the dividends who is resident in the U.S. for purposes of the Treaty and who is fully entitled to the benefits of the Treaty (a "**U.S. Holder**") is generally limited to 15% of the gross amount of the dividend (or 5% in the case of a U.S. Holder that is a corporation beneficially owning at least 10% of the Corporation's voting shares). Non-Resident Holders are urged to consult their own tax advisors to determine their entitlement to relief under an applicable income tax treaty.

Dispositions of Offered Shares

Upon a disposition (or a deemed disposition) of an Offered Share (other than to the Corporation unless purchased by the Corporation in the open market in the manner in which shares are normally purchased by any member of the public in the open market), a Non-Resident Holder generally will realize a capital gain (or a capital loss) equal to the amount by which the proceeds of disposition of such security, as applicable, net of any reasonable costs of disposition, are greater (or are less) than the adjusted cost base of such security to the Non-Resident Holder.

A Non-Resident Holder generally will not be subject to tax under the Tax Act in respect of a capital gain realized on the disposition or deemed disposition of an Offered Share, unless the Offered Share constitutes "taxable Canadian property" to the Non-Resident Holder thereof for purposes of the Tax Act, and the Non-Resident Holder is not entitled to relief under the terms of an applicable tax treaty. In addition, capital losses arising on the disposition or deemed disposition of an Offered Share will not be recognized under the Tax Act, unless the Offered Share constitutes "taxable Canadian property" to the Non-Resident Holder thereof for purposes of the Tax Act, and the Non-Resident Holder is not entitled to relief under the terms of an applicable tax treaty.

Provided the Common Shares are listed on a "designated stock exchange", as defined in the Tax Act (which currently includes Nasdaq and the TSX), at the time of disposition, the Offered Shares generally will not constitute taxable Canadian property of a Non-Resident Holder at that time, unless at any time during the 60-month period immediately preceding the disposition the following two conditions are met concurrently: (i) one or any combination of (a) the Non-Resident Holder, (b) persons with whom the Non-Resident Holder did not deal at arm's length, and (c) partnerships in which the Non-Resident Holder or a person with whom the Non-Resident Holder did not deal at arm's length held a membership interest directly or indirectly through one or more partnerships owned 25% or more of the issued shares of any class or series of shares of the Corporation; and (ii) more than 50% of the fair market value of the Common Shares of the Corporation was derived directly or indirectly from one or any combination of (a) real or immovable property situated in Canada, (b) "Canadian resource properties" (as defined in the Tax Act), (c) "timber resource properties" (as defined in the Tax Act) and (d) an option in respect of, an interest in, or for civil law rights in, any of the foregoing property, whether or not such property exists. Notwithstanding the foregoing, an Offered Share may in certain circumstances otherwise be deemed to be taxable Canadian property to a Non-Resident Holder for purposes of the Tax Act.

Non-Resident Holders whose Offered Shares are taxable Canadian property should consult their own tax advisors.

PLAN OF DISTRIBUTION

The Corporation has entered into the Sales Agreement with SVB Leerink, as the Agent, under which it may issue and sell from time to time up to US\$25,000,000 of Offered Shares through SVB Leerink, as sales agent. Sales of the Offered Shares, if any, will be made in transactions that are deemed to be an "at-the-market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on or through Nasdaq, or on any other existing trading market for the Common Shares in the United States.

SVB Leerink will offer the Offered Shares subject to the terms and conditions of the Sales Agreement on a daily basis or as otherwise agreed upon by the Corporation and SVB Leerink. The Corporation will designate the maximum number or amount of Offered Shares to be sold through SVB Leerink on a daily basis or otherwise determine such maximum number or amount together with SVB Leerink. Subject to the terms and conditions of the Sales Agreement, SVB Leerink will use commercially reasonable efforts consistent with its normal trading and sales practices to sell on the Corporation's behalf all of the Offered Shares requested to be sold by the Corporation. The Corporation may instruct SVB Leerink not to sell Offered Shares if the sales cannot be effected at or above a minimum price designated by the Corporation in any such instruction. SVB Leerink or the Corporation may suspend the Offering upon proper notice to the other party. SVB Leerink and the Corporation each have the right, by giving written notice as specified in the Sales Agreement, to terminate the Sales Agreement in each party's sole discretion at any time. The Offering will otherwise terminate upon the termination of the Sales Agreement as provided therein.

No Offered Shares will be sold in Canada or on the TSX or any other trading markets in Canada. Neither the Corporation nor the Agent will undertake any act, advertisement, solicitation, conduct or negotiation directly or indirectly in furtherance of the sale of the Offered Shares in Canada, undertake an offer or sale of any of the Offered Shares to a person that it knows or has reason to believe is in Canada or has been pre-arranged with a buyer in Canada, or to any person who it knows or has reason to believe is acting on the behalf of persons in Canada or to any person whom it knows or has reason to believe intends to reoffer, resell or deliver the Offered Shares in Canada on the TSX or on other trading markets in Canada or to any persons in Canada or acting on behalf of persons in Canada.

The compensation payable to SVB Leerink as sales agent will be 3.0% of the gross proceeds of any Offered Shares sold through it pursuant to the Sales Agreement. The Corporation has also agreed to reimburse SVB Leerink for certain of its expenses in an amount up to US\$62,500 in connection with the execution of the Sales Agreement, and US\$10,000 in connection with certain other events. The Corporation estimates that the total expenses of the Offering payable by it, excluding commissions payable to SVB Leerink under the Sales Agreement, will be approximately US\$200,000.

The remaining sales proceeds, after deducting any expenses payable by the Corporation and any transaction fees imposed by any governmental, regulatory or self-regulatory organization in connection with the sales of the Corporation's Offered Shares, will equal its net proceeds for the sale of such Offered Shares.

SVB Leerink will provide written confirmation to the Corporation no later than the next succeeding trading day on the Nasdaq after each day on which Offered Shares are sold through it as sales agent under the Sales Agreement. Each confirmation will include the number or amount of shares sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to the Corporation from such sales.

The Corporation will report at least quarterly the number of Offered Shares sold through SVB Leerink under the Sales Agreement, the net proceeds to it and the compensation paid by it to SVB Leerink in connection with the sales of Offered Shares during the relevant period.

Settlement for sales of Offered Shares will occur, unless the parties agree otherwise, on the second trading day following the date on which any sales were made in return for payment of the net proceeds to the Corporation. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sale of the Offered Shares on the Corporation's behalf pursuant to the Sales Agreement, SVB Leerink may be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation paid to SVB Leerink may be deemed to be underwriting commissions or discounts.

Corporation agreed in the Sales Agreement to provide indemnification and contribution to SVB Leerink with respect to certain liabilities, including liabilities under the Securities Act or the Exchange Act. As sales agent, SVB Leerink will not engage in any transactions that stabilize the Common Shares.

The Common Shares are listed on Nasdaq and the TSX under the symbol "MDNA". Nasdaq has been notified of the Offering, and the TSX has conditionally approved the listing of the Offered Shares offered by this Prospectus Supplement, subject to the Corporation fulfilling all of the listing requirements of the TSX set out in the conditional approval letter.

SVB Leerink and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for the Corporation for which services they have received, and may in the future receive, customary fees.

The Prospectus Supplement in electronic format may be made available on a website maintained by the Agent and the Agent may distribute this Prospectus Supplement and the accompanying Prospectus electronically.

Under no circumstances will any Offered Shares be sold pursuant to the Sales Agreement after August 28, 2022, which is 25 months after July 28, 2020 (the date that the receipt was issued for the Prospectus).

WHERE YOU CAN FIND ADDITIONAL INFORMATION

The Corporation has filed with the SEC the U.S. Registration Statement relating to, among other securities, the Offered Shares. This Prospectus Supplement and the Prospectus, both of which constitute a part of the U.S. Registration Statement, do not contain all of the information contained in the U.S. Registration Statement, certain items of which are contained in the exhibits to the U.S. Registration Statement as permitted by the rules and regulations of the SEC. See "Documents Filed as Part of the U.S. Registration Statement" in this Prospectus Supplement and the Prospectus. Statements contained in this Prospectus Supplement, the Prospectus or a document incorporated by reference in the Prospectus Supplement and the Prospectus about the contents of any contract, agreement or other documents referred to are not necessarily complete, and in each instance you should refer to the exhibits to the U.S. Registration Statement for a more complete description of the matter involved. The U.S. Registration Statement, and the items of information omitted from this Prospectus Supplement and the Prospectus but contained in the U.S. Registration Statement, will be available on EDGAR (www.sec.gov/edgar.shtml).

The Corporation is subject to the information requirements of the Exchange Act and applicable Canadian securities legislation and, in accordance therewith, files and furnishes annual and quarterly financial information and material change reports, business acquisition reports and other material with the securities commission or similar regulatory authority in certain of the provinces of Canada and with the SEC. Under MJDS adopted by the United States and Canada, documents and other information that the Corporation files with the SEC may be prepared in accordance with the disclosure requirements of Canada, which are different from those of the United States. As a foreign private issuer within the meaning of rules made under the Exchange Act, the Corporation is exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements, and the Corporation's officers, directors and principal shareholders are exempt from the reporting and shortswing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, the Corporation is not required to publish financial statements as promptly as United States companies.

You may read any document that the Corporation has filed with or furnished to the SEC on EDGAR at www.sec.gov/edgar.shtml. You may read and download any public document that the Corporation has filed with the applicable Canadian securities regulatory authorities under the Corporation's profile on SEDAR (www.sedar.com).

LEGAL MATTERS

Certain legal matters relating to the Offering under this Prospectus Supplement have been passed upon on the Corporation's behalf by McCarthy Tétrault LLP with respect to certain Canadian legal matters and by Troutman Pepper Hamilton Sanders LLP with respect to certain U.S. legal matters and on behalf of the Agent by Blake, Cassels & Graydon LLP with respect to certain Canadian legal matters and by Latham & Watkins LLP with respect to certain U.S. legal matters. As of the date hereof, the partners and associates of McCarthy Tétrault LLP and Blake, Cassels & Graydon LLP, as a group, beneficially owned, directly or indirectly, less than 1% of the outstanding Common Shares of the Corporation or any of its associates or affiliates.

AUDITORS

Davidson & Company LLP ("**Davidson**"), Chartered Accountants, Vancouver, British Columbia, was the external auditor who prepared the Auditors' Report to Shareholders with respect to the consolidated financial position of the Corporation as at March 31, 2020 and 2019 and the consolidated statements of loss, comprehensive loss, changes in shareholders' equity, and cash flow for the years then ended. Davidson was independent with respect to the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of British Columbia.

On August 21, 2020, a Notice of Change of Auditor was filed by the Corporation indicating among other things that Davidson submitted its resignation from the office of auditor of the Corporation and that PricewaterhouseCoopers LLP ("PwC") was appointed as auditor by the Board of Directors of the Corporation. PwC is independent with respect to the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Ontario.

AGENT FOR SERVICE OF PROCESS

The Non-Resident Directors are directors of the Corporation who reside outside of Canada. The Non-Resident Directors have appointed the Corporation, at its principal place of business, as agent for service of process. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person that resides outside of Canada, even if the party has appointed an agent for service of process.

ENFORCEABILITY OF CIVIL LIABILITIES

The Corporation is incorporated under the laws of Canada. Some of the Corporation's directors and officers, and the experts named in this Prospectus Supplement, are residents of Canada or otherwise reside outside the United States, and all or a substantial portion of their assets may be, and a substantial portion of the Corporation's assets are, located outside the United States. The Corporation has appointed an agent for service of process in the United States (as set forth below), but it may be difficult for holders of securities who reside in the United States to effect service within the United States upon those directors, officers and experts who are not residents of the United States. It may also be difficult for holders of securities who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon our civil liability and the civil liability of our directors, officers and experts under the United States federal securities laws. The Corporation has been advised that a judgment of a U.S. court predicated solely upon civil liability under U.S. federal securities laws or the securities or "blue sky" laws of any state within the United States, would likely be enforceable in Canada if the United States court in which the judgment was obtained has a basis for jurisdiction in the matter that would be recognized by a Canadian court for the same purposes. The Corporation has also been advised, however, that there is substantial doubt whether an action could be brought in Canada in the first instance on the basis of the liability predicated solely upon U.S. federal securities laws.

The Corporation has filed with the SEC, concurrently with our U.S. Registration Statement of which this Prospectus Supplement and Prospectus are a part, an appointment of agent for service of process on Form F-X. Under the Form F-X, we appointed C T Corporation System, 28 Liberty Street, New York, New York 10005, as our agent for service of process in the United States in connection with any investigation or administrative proceeding conducted by the SEC, and any civil suit or action brought against or involving us in a U.S. court arising out of or related to or concerning the offering of securities under this Prospectus Supplement.

Base Shelf Prospectus

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise.

This short form prospectus has been filed under legislation in the provinces of British Columbia, Alberta and Ontario that permits certain information about these securities to be determined after this prospectus has become final and that permits the omission from this prospectus of that information. The legislation requires the delivery to purchasers of a prospectus supplement containing the omitted information within a specified period of time after agreeing to purchase any of these securities.

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the United States Securities and Exchange Commission. These securities may not be offered or sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This short form prospectus shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

Information has been incorporated by reference in this short form prospectus from documents filed with the securities commissions or similar authorities in the Canadian provinces of British Columbia, Alberta and Ontario. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Chief Financial Officer of Medicenna Therapeutics Corp. at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2, Telephone: (416) 648-5555, and are also available electronically at www.sedar.com.

SHORT FORM BASE SHELF PROSPECTUS

<u>New Issue</u> July 28, 2020



MEDICENNA THERAPEUTICS CORP.

\$100,000,000 Common Shares Preferred Shares Subscription Receipts Warrants Units

Under this short form base shelf prospectus (the "**Prospectus**"), Medicenna Therapeutics Corp. (the "**Corporation**" or "**Medicenna**") may, from time to time during the 25-month period that this Prospectus, including any amendments, remains valid, offer and issue common shares (the "**Common Shares**") or preferred shares (the "**Preferred Shares**") of its share capital, subscription receipts (the "**Subscription Receipts**"), warrants to purchase Common Shares, Preferred Shares or other securities (the "**Warrants**") or units comprised of one or more of the other securities described in this Prospectus in any combination (the "**Units**" and together with the Common Shares, Preferred Shares, Subscription Receipts and Warrants, the "**Securities**") in one or more offerings of up to \$100,000,000 (or the equivalent in foreign currencies). The Securities may be offered separately or together, in amounts, at prices and on terms based on market conditions at the time of the sale and set forth in an accompanying prospectus supplement (a "**Prospectus Supplement**"). The Corporation may sell the Preferred Shares, the Subscription Receipts and the Warrants in one or more series.

The specific terms of the Securities with respect to a particular offering will be set out in the applicable Prospectus Supplement and may include, where applicable: (i) in the case of Common Shares, the number of Common Shares offered, the offering price and currency (in the event the offering is a fixed price distribution), the manner in which the offering price and currency will be determined (in the event the offering is a non-fixed price distribution) and any other terms specific to the Common Shares being offered; (ii) in the case of Preferred Shares, the series of Preferred Shares, the number of Preferred Shares offered, the offering price and any other specific terms; (iii) in the case of Subscription Receipts, the number of Subscription Receipts offered, the issue price, the terms and procedures for the exchange of the Subscription Receipts and any other specific terms; (iv) in the case of Warrants, the designation, number and terms of the Common Shares, Preferred Shares or other securities purchasable upon exercise of the Warrants, any procedures that will result in the adjustment of these numbers, the exercise price, dates and periods of exercise, the currency in which the Warrants are offered and any other specific terms; and (v) in the case of Units, the number of Units offered, the issue price, the currency, the terms of the Units and of the Securities comprising the Units and any other terms specific to the Units being offered. Where required by statute, regulation or policy, and where Securities are offered in currencies other than Canadian dollars, appropriate disclosure of foreign exchange rates applicable to such Securities will be included in the Prospectus Supplement describing such Securities. The Corporation may also include in a Prospectus Supplement specific terms pertaining to the Securities which are not within the options and parameters set forth in this Prospectus.

All shelf information permitted under applicable securities legislation to be omitted from this Prospectus will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this Prospectus. Each Prospectus Supplement will be incorporated by reference into this Prospectus for the purposes of applicable securities legislation as of the date of the Prospectus Supplement and only for the purposes of the distribution of the Securities to which the Prospectus Supplement pertains. This Prospectus and any applicable Prospectus Supplement should be read carefully before investing in the Securities.

The Corporation may offer and sell these Securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The Prospectus Supplement for each offering of Securities will

describe in detail the plan of distribution. If underwriters, dealers and agents are used to sell these Securities, the Corporation will name them and describe their compensation in a Prospectus Supplement.

The outstanding Common Shares are listed and posted for trading on the Toronto Stock Exchange (the "TSX") under the symbol "MDNA". On July 27, 2020, the last trading day on the TSX prior to the date of this Prospectus, the closing price of the Common Shares on the TSX was \$5.06. There is no market through which the Securities, other than the Common Shares may be sold and purchasers may not be able to resell the Securities purchased under this Prospectus. This may affect the pricing of the Securities in the secondary market, the transparency and availability of trading prices, the liquidity of the Securities and the extent of issuer regulation. See "Risk Factors".

The offering of Securities hereunder is made by a Canadian issuer that is permitted, under a multijurisdictional disclosure system ("MJDS") adopted by the United States and Canada, to prepare this Prospectus in accordance with Canadian disclosure requirements. Prospective investors should be aware that such requirements are different from those of the United States. Annual financial statements for the year ended March 31, 2020 included or incorporated herein have been prepared in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS") and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States) and are subject to Canadian and United States auditing and auditor independence standards and thus may not be comparable to financial statements of United States companies.

The enforcement by investors of civil liabilities under the United States federal Securities laws may be affected adversely by the fact that the Corporation is incorporated or organized under the laws of a foreign country, that some or all of its officers and directors may be residents of a foreign country, that some or all of the underwriters or experts named in this Prospectus or any Prospectus Supplement may be residents of a foreign country and that all or a substantial portion of the assets of the Corporation and said persons may be located outside the United States.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION ("SEC") NOR HAS THE SECURITIES COMMISSION OF ANY STATE OF THE UNITED STATES OR ANY CANADIAN SECURITIES REGULATOR APPROVED OR DISAPPROVED THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Investors should be aware that the acquisition, holding or disposition of the Securities described herein may have tax consequences both in the United States and in Canada. Such consequences for investors who are resident in, or citizens of, the United States and Canada may not be described fully herein. You should read the tax discussion contained in the applicable Prospectus Supplement with respect to a particular offering of Securities and consult your own tax advisor with respect to your own particular circumstances.

Securities offered pursuant to this Prospectus and any related Prospectus Supplement will constitute a public offering of such Securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such Securities. The Corporation may offer and sell Securities to or through underwriters or dealers, directly to one or more purchasers pursuant to applicable statutory exemptions, or through agents designated from time to time at amounts and prices and other terms determined by the Corporation. The Prospectus Supplement relating to a particular offering of Securities will identify each underwriter, dealer or agent engaged in connection with the offering and sale of Securities and will set forth the plan of distribution for such Securities, including the proceeds to the Corporation and any fees, discounts, concessions or other compensation payable to the underwriters, dealers or agents, and any other material terms of the plan of distribution. See "Plan of Distribution".

In connection with any underwritten offering of the Securities (unless otherwise specified in a Prospectus Supplement), the underwriters or agents may over-allot or effect transactions which stabilize or maintain the market price of the Securities offered at a higher level than that which might exist in the open market. Such transactions, if commenced, may be interrupted or discontinued at any time. See "*Plan of Distribution*".

Each of Karen Dawes and Andrew Strong (the "Non-Resident Directors"), directors of the Corporation, resides outside of Canada. The Non-Resident Directors have appointed the following agent for service of process:

| Name of the Person or Company | Name and Address of Agent |
|-------------------------------|--|
| Karen Dawes | Medicenna Therapeutics Corp. |
| Andrew Strong | 2 Bloor Street West, 7 th Floor |
| | Toronto, Ontario, M4W 3E2 |

Purchasers are advised that it may not be possible for investors to enforce judgements obtained in Canada against any person that resides outside of Canada, even if the party has appointed an agent for service of process. See "Risk Factors — Enforcement of Judgments Against Foreign Persons may not be Possible".

In this Prospectus, unless otherwise specified or the context otherwise requires, all dollar amounts are expressed in Canadian dollars. All references to "dollar" or "\$" are to Canadian dollars and United States dollars are indicated by the symbol "US\$".

The Corporation's head and registered office is located at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2 and its telephone number is (416) 648-5555.

Investing in the Securities involves risks, including those that are described in the "Risk Factors" section of this Prospectus or incorporated by reference into this Prospectus. The Corporation will apply to list the Common Shares distributed under this Prospectus including the Common Shares underlying the Preferred Shares, Subscription Receipts, Warrants and Units, if any. However, unless specified in the applicable Prospectus Supplement, there is no market through which the Preferred Shares, the Subscription Receipts, the Warrants or the Units may be sold and purchasers may not be able to resell the Preferred Shares, the Subscription Receipts, the Warrants or the Units purchased under this Prospectus and the Prospectus Supplements. This may affect the pricing of the Preferred Shares, the Subscription Receipts, the Warrants and the Units in the secondary market, the transparency and availability of trading prices, the liquidity of the Preferred Shares, the Subscription Receipts, the Warrants and the Units and the extent of issuer regulation. See "Risk Factors".

No underwriter, dealer, placement agent, other intermediary or agent has been involved in the preparation of this Prospectus or performed any review of the contents of this Prospectus.

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GENERAL MATTERS

General Advisory

Prospective investors should rely only on the information contained in or incorporated by reference in this Prospectus or in a Prospectus Supplement. The Corporation has not authorized anyone to provide you with different or additional information. The Corporation is not making an offer of the Offered Shares in any jurisdiction where the offer is not permitted by law. If anyone provides prospective investors with any different or inconsistent information, prospective investors should not rely on it. Prospective investors should assume that the information contained in this Prospectus or any applicable Prospectus Supplement is accurate only as of the date on the front of those documents and that information contained in any document incorporated by reference is accurate only as of the date of that document, regardless of the time of delivery of this Prospectus or any applicable Prospectus Supplement or of any sale of the Securities. The Corporation's business, financial condition, results of operations and prospects may have changed since those dates.

Market and Industry Data

Certain independent third party and industry data contained (or incorporated by reference) in this Prospectus is based upon information from government or other independent industry or scientific publications and reports or based on estimates derived from such publications and reports. Government and industry publications and reports generally indicate that they have obtained their information from sources believed to be reliable, but none of the Corporation, or any of its representatives, have conducted their own independent verification of such information. While the Corporation believes this information to be reliable, third party information is subject to variations and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process, and other limitations and uncertainties inherent in any statistical or scientific survey. In addition, this third party information has been prepared as of a specific date and therefore does not contemplate changes in facts and circumstances following such date. None of the Corporation or any of its representatives has independently verified any of the research, findings or data from independent third party sources referred to in this Prospectus or ascertained the underlying assumptions relied upon by such sources. Unless specifically stated, none of the third party information cited in this Prospectus is incorporated by reference herein. All third party information source references are provided for the reader's convenience only and do not form a part of this Prospectus.

This Prospectus is part of a registration statement on Form F-10 (the "U.S. Registration Statement") relating to the Securities that the Corporation has or will file with the SEC. Under the U.S. Registration Statement, the Corporation may, from time to time, sell Securities described in this Prospectus in one or more offerings up to an aggregate offering amount of \$100,000,000. This Prospectus, which constitutes part of the U.S. Registration Statement, provides you with a general description of the Securities that the Corporation may offer. Each time the Corporation sells Securities under the U.S. Registration Statement, it will provide a Prospectus Supplement that will contain specific information about the terms of that offering of Securities. A Prospectus Supplement may also add, update or change information contained in this Prospectus. Before you invest, you should read both this Prospectus and any applicable Prospectus Supplement together with additional information described under the heading "Documents Incorporated by Reference". This Prospectus does not contain all of the information set forth in the U.S. Registration Statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC, or the schedules or exhibits that are part of the U.S. Registration Statement. Investors in the United States should refer to the U.S. Registration Statement and the exhibits thereto for further information with respect to the Corporation and the Securities.

EXCHANGE RATE INFORMATION

The consolidated financial statements incorporated by reference into this Prospectus and the other documents incorporated by reference into this Prospectus, and the financial data derived from those consolidated financial statements included in this Prospectus, are presented in Canadian dollars, unless otherwise specified, and have been prepared in accordance with IFRS.

The following table lists, for each period presented, the high and low exchange rates, the average of the exchange rates during the period indicated, and the exchange rates at the end of the period indicated, for one Canadian dollar, expressed in United States dollars, based on the closing exchange rate published by the Bank of Canada for the applicable periods.

| | Yea | Year ended March 31, | | |
|------------------------|----------|----------------------|----------|--|
| | 2020 | 2019 | 2018 | |
| High for the period | \$0.7710 | \$0.7967 | \$0.8245 | |
| Low for the period | \$0.6898 | \$0.7330 | \$0.7276 | |
| End of period | \$0.7049 | \$0.7491 | \$0.7756 | |
| Average for the period | \$0.7517 | \$0.7625 | \$0.7796 | |

On July 27, 2020, the closing exchange rate for one Canadian dollar, expressed in United States dollars, as reported by the Bank of Canada, was Cdn\$1.00 = US\$0.7475.

FORWARD-LOOKING STATEMENTS

Certain statements contained in this Prospectus, any Prospectus Supplement and the documents incorporated by reference herein and therein may constitute "forward-looking information" within the meaning of applicable securities laws in Canada and "forward-looking statements" within the meaning of the *United States Private Securities Litigation Reform Act of 1995* (collectively, "**forward-looking statements**"). These statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Corporation, 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 include, but are not limited to, statements with respect to the Corporation'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 Corporation's development programs;
- observations and expectations regarding the effectiveness of MDNA55 and the potential benefits to patients;
- expectations about the Corporation's products' safety and efficacy;
- expectations regarding the Corporation's ability to arrange for the manufacturing of the Corporation's products and technologies;
- expectations regarding the progress, and the successful and timely completion, of the various stages of the regulatory approval process;
- expectations regarding the filing and approval of various submissions by regulatory agencies regarding the conduct of new clinical trials;
- ability to initiate, progress, and successful and timely completion, of various pre-clinical and manufacturing activities associated with future clinical trials;
- 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 Corporation's products and technologies;
- · expectations regarding the acceptance of the Corporation'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 Corporation or to the Corporation
 in respect of such arrangements;
- strategy with respect to the protection of the Corporation's intellectual property; and
- · the potential market for the Securities.

All forward-looking statements reflect the Corporation's beliefs and assumptions based on information available at the time the assumption was made. These forward-looking statements are not based on historical facts but rather on management's expectations regarding future activities, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, business prospects and opportunities. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, known and unknown, that contribute to the possibility that the predictions, forecasts, projections or other forward-looking statements will not occur. Factors which could cause future outcomes to differ materially from those set forth in the forward-looking statements include, but are not limited to:

- the effect of continuing operating losses on the Corporation's ability to obtain, on satisfactory terms, or at all, the capital required to maintain the Corporation as a going concern;
- the ability to obtain sufficient and suitable financing to support operations, preclinical development, clinical trials, and commercialization of products;
- the risks associated with the development of novel compounds at early stages of development in the Corporation's intellectual property portfolio;
- the risks of reliance on third-parties for the planning, conduct and monitoring of clinical trials and for the manufacture of drug product;
- the risks of reliance on third-parties for timely completion of on-going clinical trial activities, conduct of statistical analysis, imaging analysis, preparation of study reports and regulatory submissions;
- the risks associated with the development of the Corporation's product candidates including the demonstration of efficacy and safety;
- the risks related to clinical trials including potential delays, cost overruns and the failure to demonstrate efficacy and safety;
- the risks of delays and inability to complete clinical trials due to difficulties in securing ethics approvals and enrolling patients;
- the risks associated with the Corporation's inability to successfully develop companion diagnostics for the Corporation's development candidates;
- the risks associated with the Corporation's inability to successfully access drug delivery technology or materials and components required for drug delivery;
- the risks associated with reliance on third parties for proper storage, packaging and shipment of active ingredients or other components required for pre-clinical or clinical trials;
- the risks associated with product loss or degradation or failure of manufacturing batches and not meeting specifications for use in pre-clinical or clinical trials;
- the delays or negative outcomes from the regulatory approval process;
- the Corporation's ability to successfully compete in the Corporation's targeted markets;

- the Corporation's ability to attract and retain key personnel, collaborators and advisors;
- the risks relating to the increase in operating costs from expanding existing programs, acquisition of additional development programs and increased staff;
- the risk of negative results of clinical trials or adverse safety events by the Corporation or others related to the Corporation's product candidates;
- · the potential for product liability claims;
- · the Corporation's ability to achieve the Corporation's forecasted milestones and timelines on schedule;
- the financial risks related to the fluctuation of foreign currency rates and expenses denominated in foreign currencies:
- the Corporation's ability to adequately protect proprietary information and technology from competitors;
- risks related to changes in patent laws and their interpretations;
- the Corporation's ability to remain compliant with the terms of its agreement with the Cancer Prevention Research Institute of Texas (CPRIT) and collect any remaining funding;
- · the Corporation's ability to source and maintain licenses from third-party owners; and
- the risk of patent-related litigation and the ability to protect trade secrets,

all as further and more fully described in the "*Risk Factors*" section of this Prospectus, in the "*Risk Factors*" section of the AIF (as defined herein) and elsewhere in the Corporation's Annual MD&A (as defined herein) and elsewhere in the Corporation's filings with the Canadian securities regulators, as applicable. Although the Corporation 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.

The forward-looking information in this Prospectus does not include a full assessment or reflection of the unprecedented impacts of the COVID-19 pandemic and the ongoing and developing resulting indirect global and regional economic impacts. The Corporation is currently experiencing uncertainty related to the rapidly developing COVID-19 situation. It is anticipated that the spread of COVID-19 and global measures to contain it, will have an impact on the Corporation, however it is challenging to quantify the potential magnitude of such impact at this time. The Corporation is regularly assessing the situation and remains in contact with its partners, clinical sites and investigators, contract research organizations, contract development and manufacturing organizations and suppliers to assess any impacts and risks. The Corporation believes that ongoing COVID-19 restrictions could impact the planned clinical development timelines of the MDNA109 platform (MDNA11 and MDNA19) as patient recruitment for clinical trials is currently being impacted. However, the initiation of the clinical study is not planned until mid-calendar 2021 and it is not possible to predict the potential impact of patient recruitment at that time.

Although the forward-looking statements contained herein are based upon what the Corporation's management believes to be reasonable assumptions, the Corporation cannot assure readers that actual results will be consistent with these forward-looking statements.

Forward-looking statements made in a document incorporated by reference in this Prospectus are made as of the date of the original document and have not been updated except as expressly provided herein. Other than as specifically required by law, the Corporation undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Accordingly, readers should not place undue reliance on forward-looking statements.

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in this Prospectus from documents filed with securities commissions or similar regulatory authorities in Canada. Copies of the documents incorporated by reference herein may be obtained on request without charge from the Chief Financial Officer of the Corporation at 2 Bloor Street West, 7th Floor, Toronto, Ontario, M4W 3E2, Telephone: (416) 648-5555.

In addition to the continuous disclosure obligations of the Corporation under the securities laws of certain provinces of Canada, the Corporation is subject to certain of the information requirements of the *U.S. Securities Exchange Act of 1934*, as amended (the "Exchange Act"), and in accordance therewith file reports and other information with the SEC. Under MJDS, some reports and other information may be prepared in accordance with the disclosure requirements of Canada, which requirements are different from those of the United States. As a foreign private issuer, the Corporation is exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements, and the Corporation's officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, the Corporation may not be required to publish financial statements as promptly as U.S. companies. You may read any document that the Corporation files with or furnish to the SEC at the SEC's Electronic Data Gathering and Retrieval (EDGAR) system from the SEC's website at www.sec.gov.

These documents are also available through the internet under the Corporation's profile on the System for Electronic Document Analysis and Retrieval ("SEDAR") which can be accessed at www.sedar.com. The following documents, filed with the various securities commissions or similar authorities in each of the provinces of British Columbia, Alberta and Ontario, are specifically incorporated by reference into and form an integral part of this Prospectus:

- the annual information form of the Corporation dated May 14, 2020 for the financial year ended March 31, 2020 (the "AIF");
- 2. <u>the audited financial statements of the Corporation as at, and for the financial years ended</u>
 <u>March 31, 2020 and 2019, together with the notes thereto and the independent auditor's report thereon (the "Annual Financial Statements");</u>
- 3. <u>the management's discussion and analysis of financial condition and results of operations for the financial year ended March 31, 2020 (the "Annual MD&A");</u>
- 4. <u>the management information circular dated August 19, 2019 relating to Medicenna's annual meeting of shareholders held on September 24, 2019 (the "Circular"); and</u>
- the material change report dated April 20, 2020 relating to a public offering of Common Shares (the "2020 Public Offering").

Material change reports (other than confidential reports), business acquisition reports, interim financial statements, annual financial statements, annual information forms and all other documents of the type required by National Instrument 44-101 — *Short Form Prospectus Distributions* to be incorporated by reference in a short form prospectus, filed by the Corporation with a securities commission or similar regulatory authority in Canada after the date of this Prospectus and before completion or withdrawal of the Offering, will be deemed to be incorporated by reference into this Prospectus.

In addition, to the extent that any document or information incorporated by reference into this Prospectus is included in any report on Form 6-K, Form 40-F or Form 20-F (or any respective successor form) that is filed with or furnished to the SEC by the Corporation after the date of this Prospectus, such document or information shall be deemed to be incorporated by reference as an exhibit to the U.S. Registration Statement of which this Prospectus forms a part. In addition, the Corporation may incorporate by reference into this Prospectus, or the U.S. Registration Statement of which it forms a part, other information from documents that the Corporation will file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, if and to the extent expressly provided therein.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this Prospectus shall be deemed to be modified or superseded for the purposes of this Prospectus to the extent that a statement contained in this Prospectus or in any subsequently filed document which also is or is deemed to be incorporated by reference in this Prospectus modifies or supersedes that statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document or statement that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purpose that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission

to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

DOCUMENTS FILED AS PART OF THE U.S. REGISTRATION STATEMENT

The following documents have been filed with the SEC as part of the U.S. Registration Statement of which this Prospectus is a part insofar as required by the SEC's Form F-10:

- the documents listed under "Documents Incorporated by Reference" in this Prospectus;
- the consent of Davidson & Company, the Corporation's independent auditors;
- the consent of McCarthy Tétrault LLP, the Corporation's Canadian counsel; and
- powers of attorney of the Corporation's directors and officers, as applicable.

A copy of the form of warrant indenture for any offering of Warrants, as applicable, under this Prospectus will be filed by post-effective amendment or by incorporation by reference to documents filed or furnished with the SEC under the Exchange Act.

DESCRIPTION OF THE BUSINESS

Medicenna is a clinical stage immuno-oncology 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 in order to generate Empowered Cytokines™ ("ECs") that precisely deliver potent toxins to cancer cells without harming adjacent healthy cells. Medicenna's mission is to become the leader in the development and commercialization of Superkines for the treatment of a broad range of cancers. The Corporation seeks to achieve its goals by drawing on its expertise, and that of world-class collaborators, in order to develop a unique set of therapeutic Superkines. Compared to naturally occurring cytokines — that bind to multiple receptor types on many cell types — Superkines are engineered with unique specificity toward defined target cell subsets to enable precise activation or inhibition of relevant immune cells in order to improve therapeutic efficacy and safety.

Medicenna has completed a Phase 2b clinical trial of MDNA55, Medicenna's lead EC, for the treatment of recurrent glioblastoma ("rGBM"), the most common and uniformly fatal form of brain cancer. MDNA55 is a fusion of a circularly permuted version of IL-4, fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin (PE), that is designed to preferentially target tumor cells that over-express the interleukin 4 receptor ("IL-4R"). MDNA55 has now been studied in 5 clinical trials in 132 patients, including 112 patients with rGBM, in which it has shown indications of superior efficacy when compared to the current standard of care. MDNA55 has secured Orphan Drug Status from the United States Food and Drug Administration ("FDA") and the European Medicines Agency as well as Fast Track Designation from the FDA for the treatment of rGBM and other types of high grade glioma. Medicenna announced on April 30, 2019 that patient enrollment was complete in the Phase 2b clinical trial of MDNA55 after treating 46 patients with rGBM. Medicenna announced preliminary top line data from the study on June 18, 2019 and additional survival data in December 2019, January and May 2020. Medicenna plans to have an End of Phase 2 ("EOP2") meeting with the FDA in 2020.

Complementing Medicenna's lead clinical asset (MDNA55), the Corporation has built a deep pipeline of promising pre-clinical Superkine candidates such as IL-2 agonists (MDNA109), IL-2 antagonists (MDNA209), dual IL-4/IL-13 antagonists (MDNA413) and IL-13 Superkine (MDNA132) all in-licensed from Leland Stanford Junior University. The most advanced of these programs is the MDNA109 platform (MDNA19 and MDNA11), which is in pre-clinical development and is the only engineered IL-2 Superkine designed to specifically target CD122 (IL-2R β) with high affinity without CD25 dependency. The important candidates from the IL-2 Superkine platform are MDNA11 and MDNA19, which unlike native IL-2 (Proleukin) have superior pharmacokinetic properties, lack CD25 binding in order to improve safety, potently stimulate effector T cells, reverse natural killer (NK) cell anergy and act with exceptional synergy when combined with checkpoint inhibitors.

MDNA19 and MDNA11 originate from the same base molecule engineered from the MDNA109 platform. This base molecule has a very short half-life which requires frequent dosing and therefore would not be viable in a commercial setting. To address this issue, Medicenna fused both Fc (MDNA19) and albumin (MDNA11) to the base molecule with the effect of increasing the molecular weight of the molecule and its half-life. After completing pilot non-human primate studies with both MDNA19 and MDNA11, it became apparent that MDNA11 was the more promising molecule and was therefore selected as the lead IL-2 candidate to advance into clinical development over MDNA19. Medicenna is thus working towards initiating a Phase 1 clinical study for MDNA11 in mid-2021.

Medicenna currently does not have the intention or the resources to advance the clinical development of MDNA19 in parallel with MDNA11 but MDNA19, which was previously identified as the Corporation's lead IL-2 candidate, remains relevant for Medicenna because it is derived from the same platform as MDNA11 and could also be moved to clinical development in certain circumstances. Accordingly, the net proceeds in the amount of \$20,850,000 from the 2020 Offering which were intended to be used for the preclinical development, manufacturing and clinical development of MDNA19 have been re-directed to the pre-clinical development, manufacturing and clinical development of MDNA11 in the same proportions and the developmental milestones presented in the short form prospectus of the Corporation dated March 12, 2020 in connection with the 2020 Offering remain unchanged but for the fact that the Corporation has opted to advance the clinical study of MDNA11 instead of MDNA19.

For further information, see "General Development of the Business" and "Narrative Description of the Business" in the AIF. See also "Risk Factors".

Recent Developments

In March 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. We continue to monitor the COVID-19 situation, which is rapidly developing. The Corporation operates in a virtual manner and current operations have not been impacted in any material way by the health crisis. However, the pandemic does have an impact on our third party vendors which could result in the interruption of operations and result in development delays including the timing of the End of Phase 2 clinical study meeting for MDNA55 with the US FDA, the ongoing pre-clinical and future clinical activities related to MDNA11. We have required all of our employees to work from home and are asking business partners to engage us by telephone or video conference where possible, eliminating business travel and requiring self-isolation for employees travelling outside of Canada. As the COVID-19 health crisis further develops, we will continue to rely on guidance and recommendations from local health authorities, Health Canada and the Centers for Disease Control and Prevention to update our policies.

On May 29, 2020, Medicenna announced the virtual presentations of data from its completed Phase 2b trial of MDNA55, an IL4-guided toxin, in patients with rGBM, at the 2020 American Society of Clinical Oncology ("ASCO") Annual Meeting. The oral poster discussion led by Dr. Ian F. Parney, MD, PhD (Mayo Clinic) and a presentation by Dr. John Sampson, MD, PhD (Robert H. and Gloria Wilkins Distinguished Professor of Surgery, Duke University School of Medicine), focused on additional data demonstrating clinical superiority of MDNA55 in patients with rGBM. The study enrolled rGBM patients that had aggressive tumors (de novo GBM, IDH wild-type, not-resectable at recurrence) with limited treatment options and poor survival outcomes median overall survival ("mOS") of 6-9 months, median progression free survival ("mPFS") of < 2 months and progression free survival ("PFS") at twelve months ("PFS-12") of 10%

Highlights from the ASCO presentation included:

 Comparison of MDNA55 with an eligibility-matched Synthetic Control Arm ("SCA") demonstrated an improvement in mOS of 61%. When stratified by IL4R status, IL4R High subjects in the MDNA55 arm demonstrated improved mOS by 155% (Table 1).

Table 1.

| Eligibility-Matched Groups | N | mOS | Improvement in mOS | Hazard Ratio (HR) | OS-12 |
|----------------------------|----|------|--------------------|----------------------|-------|
| MDNA55 All-comers | 44 | 12.4 | 61% | 0.58 | 53% |
| SCA All-comers | 81 | 7.7 | | | 25% |
| MDNA55 IL4R High | 21 | 15.8 | 155% | 0.54 | 62% |
| SCA IL4R High | 17 | 6.2 | | | 24% |

Further refinement of the SCA using propensity-score weighting (Li et al), an unbiased approach to select patients that match the baseline characteristics of MDNA55 treated patients based on 11 key baseline prognostic factors, confirms these results (Table 2).

Table 2.

| Propensity-Weighted Groups | N | mOS | mOS | HR |
|----------------------------|------|------|------|------|
| MDNA55 All-comers | 43 | 12.4 | 72% | 0.63 |
| SCA All-comers | 40.8 | 7.2 | | |
| MDNA55 IL4R High | 17 | 13.2 | 116% | 0.52 |
| SCA IL4R High | 16.8 | 6.1 | | |

Irrespective of IL4R expression, subjects showed tumor control rate ("TCR") (tumor shrinkage or stabilization) of 76% based on modified RANO criteria; these subjects demonstrated mPFS of 4.6 months,

PFS at six months ("PFS-6") of 40%, PFS-12 of 33%, mOS of 15.0 months and overall survival at twelve months ("OS-12") of 57%.

Additional updated results (not presented at ASCO) include the following:

Patients with Low IL4R expression (H-Score \leq 60) had a similar TCR as patients with High IL4R expression (H-Score > 60); TCR of 75% vs. 76%, respectively. However, the majority of the IL4R Low patients (11 of 16) received high doses of MDNA55 (180 — 240 µg; median 180 µg) whereas only 8 of 21 IL4R High patients received the high dose of MDNA55.

The IL4R Low group receiving high dose also showed improved survival (mOS Not Reached, OS-12 of 53%) when compared to the low dose group (mOS = 8 months, OS-12 = 13%).

The Proposed Population (n=32), comprised of all IL4R High (irrespective of dose) as well as IL4R Low patients receiving the high dose, were shown to benefit the most from a single treatment of MDNA55. Median survival and OS-12 in this population was 15.8 months and 62% vs 7.0 months and 18%, respectively, when compared to the eligibility matched SCA. (Table 3).

Table 3.

| | | | improvement in | | |
|---------------------|------|------|----------------|------|-------|
| Eligibility-Matched | N | mOS | mOS | HR | OS-12 |
| Proposed Population | 32 | 15.8 | 126% | 0.45 | 62% |
| SCA | 40 | 7.0 | | | 18% |
| Propensity-Weighted | | | | | |
| Proposed Population | 32 | 15.7 | 118% | 0.52 | NA |
| SCA | 33.9 | 7.2 | | | NA |

TCR in the Proposed Population was 81% based on radiologic assessment by mRANO criteria.

These data indicate that MDNA55 has the potential to benefit all rGBM patients treated at the high dose (180 μ g) irrespective of IL4R expression. The high dose has already shown an acceptable safety profile in this and earlier clinical trials (MTD = 240 μ g).

On May 29, 2020, the Corporation also announced the virtual presentation of data on MDNA11, its lead candidate from the IL-2 Superkine program, at the 2020 ASCO Annual Meeting. The poster presentation by Dr. Moutih Rafei, PhD (Associate Professor of Pharmacology and Physiology at the University de Montreal), focused on encouraging data in non-human primates ("NHP") for MDNA11, a long-acting IL-2 variant engineered to have enhanced affinity to CD122 without interacting with CD25. This engineering allows MDNA11 to specifically expand cancer fighting naïve CD8 T cells as well as NK cells with minimal stimulation of T regulatory cells (Tregs) and eosinophils (associated with vascular leak syndrome). As such, the use of MDNA11 circumvents both immune-suppression and toxicity normally observed with Proleukin. In addition, MDNA11 has several advantages over other long-acting IL-2 variants as it permits enhanced accumulation in the tumor vicinity and can be recycled in vivo thus exhibiting prolonged circulation in the blood stream thereby reducing the frequency of treatment.

CONSOLIDATED CAPITALIZATION

There have been no material changes in the consolidated capitalization of the Corporation since March 31, 2020, the date of the Corporation's audited consolidated financial statements for the year ended March 31, 2020, which have not been disclosed elsewhere in this Prospectus or the documents incorporated by reference herein.

PRIOR SALES

The following tables summarize the Common Shares or securities convertible into, or exercisable to acquire, Common Shares that have been issued by the Corporation during the 12 months prior to the date of this Prospectus.

Common Shares

| Date | Price per Common Share | Number of Common Shares Issued |
|-------------------|---------------------------|-----------------------------------|
| October 4, 2019 | \$1.20 | 25,000 ⁽¹⁾ |
| October 17, 2019 | N/A ⁽²⁾ | 5,307,693 |
| December 19, 2019 | \$1.75 | $130,000^{(3)}$ |
| December 23, 2019 | \$1.30 | 15,000 ⁽⁴⁾ |
| December 23, 2019 | \$1.75 | 17,500 ⁽³⁾ |
| December 23, 2019 | \$1.20 | 75,000 ⁽¹⁾ |
| December 24, 2019 | \$1.75 | 79,050 ⁽³⁾ |
| December 24, 2019 | \$1.20 | 7,500 ⁽¹⁾ |
| December 30, 2019 | \$1.75 | 18,861 ⁽³⁾ |
| December 31, 2019 | \$1.20 | 14,500 ⁽¹⁾ |
| December 31, 2019 | \$1.75 | 222,900 ⁽³⁾ |
| January 2, 2020 | \$1.75 | 32,650 ⁽³⁾ |
| January 2, 2020 | \$1.20 | 80,000 ⁽¹⁾ |
| January 2, 2020 | \$2.00 | 35,000 ⁽⁵⁾ |
| January 3, 2020 | \$1.20 | 102,000 ⁽¹⁾ |
| January 3, 2020 | \$1.75 | $3,000^{(3)}$ |
| January 6, 2020 | \$1.75 | 22,651 ⁽³⁾ |
| January 9, 2020 | \$1.75 | 1,000 ⁽³⁾ |
| January 10, 2020 | \$1.75 | 1,950 ⁽³⁾ |
| January 14, 2020 | \$1.30 | 5,850 ⁽⁴⁾ |
| January 15, 2020 | \$1.20 | 15,000 ⁽¹⁾ |
| January 16, 2020 | \$1.75 | 8,517 ⁽³⁾ |
| January 17, 2020 | \$1.20 | 1,750 ⁽¹⁾ |
| January 17, 2020 | \$1.75 | 3,812 ⁽³⁾ |
| January 20, 2020 | \$1.75 | 2,250 ⁽³⁾ |
| January 21, 2020 | \$1.20 | 2,500 ⁽¹⁾ |
| January 21, 2020 | \$1.75 | 1,350 ⁽³⁾ |
| January 22, 2020 | \$1.75 | 1,722 ⁽³⁾ |
| January 23, 2020 | \$1.20 | 5,000 ⁽¹⁾ |
| January 23, 2020 | \$1.75 | 4,500 ⁽³⁾ |

Common Shares

| Date | Price per Common Share | Number of Common Shares Issued |
|------------------|---------------------------|-----------------------------------|
| January 24, 2020 | \$1.30 | 5,000 ⁽⁴⁾ |
| January 24, 2020 | \$1.20 | 165,125 ⁽¹⁾ |
| January 27, 2020 | \$1.75 | $9,450^{(3)}$ |

| Date | Price per Common Share | Number of Common Shares Issued |
|-------------------|---------------------------|-----------------------------------|
| January 28, 2020 | \$1.75 | 2,650 ⁽³⁾ |
| January 29, 2020 | \$1.20 | 6,250 ⁽¹⁾ |
| January 30, 2020 | \$1.20 | 220 ⁽¹⁾ |
| January 30, 2020 | \$1.75 | $2,132^{(3)}$ |
| February 3, 2020 | \$1.75 | 32,012 ⁽³⁾ |
| February 11, 2020 | \$1.75 | $42,900^{(3)}$ |
| February 12, 2020 | \$1.75 | $9,500^{(3)}$ |
| February 13, 2020 | \$1.75 | 1,587 ⁽³⁾ |
| February 14, 2020 | \$1.75 | $2,000^{(3)}$ |
| February 19, 2020 | \$1.75 | $5,000^{(3)}$ |
| February 19, 2020 | \$1.20 | 5,000 ⁽¹⁾ |
| February 21, 2020 | \$1.75 | $8,600^{(3)}$ |
| February 25, 2020 | \$1.75 | 15,000 ⁽³⁾ |
| February 26, 2020 | \$1.20 | 25,000 ⁽¹⁾ |
| February 26, 2020 | \$1.75 | 5,000 ⁽³⁾ |
| February 27, 2020 | \$1.75 | 5,000 ⁽³⁾ |
| March 2, 2020 | \$1.75 | $3,000^{(3)}$ |
| March 3, 2020 | \$1.30 | 110,556 ⁽⁴⁾ |
| March 17, 2020 | \$3.10 | 11,290,323 ⁽⁶⁾ |
| March 31, 2020 | \$1.30 | 2,225 ⁽⁴⁾ |
| April 9, 2020 | \$1.30 | $2,500^{(4)}$ |
| April 15, 2020 | \$3.10 | 1,693,548 ⁽⁶⁾ |
| May 8, 2020 | \$1.75 | 4,500 ⁽³⁾ |
| May 15, 2020 | \$1.30 | 112,759 ⁽⁴⁾ |
| May 21, 2020 | \$3.10 | 9,675 ⁽⁷⁾ |
| May 21, 2020 | \$1.20 | 50,000 ⁽¹⁾ |
| June 2, 2020 | \$1.30 | 13,750 ⁽⁴⁾ |
| June 2, 2020 | \$3.10 | 90,000 ⁽⁷⁾ |
| June 2, 2020 | \$1.00 | 21,423 ⁽⁸⁾ |
| July 3, 2020 | \$1.20 | 15,000 ⁽¹⁾ |
| July 20, 2020 | \$1.75 | 1,950 ⁽³⁾ |

Notes:

- (1) Issued pursuant to the exercise of warrants originally issued on December 21, 2018.
- (2) Common Shares forming part of units issued at a price of \$1.30 per unit pursuant to a public offering of units (the "2019 Public Offering").
- (3) Issued pursuant to the exercise of warrants originally issued pursuant to the 2019 Public Offering.
- (4) Issued pursuant to the exercise of broker warrants originally issued pursuant to the 2019 Public Offering.
- (5) Issued pursuant to the exercise of warrants originally issued pursuant to private placements completed in 2016.
- (6) Issued pursuant to the 2020 Public Offering.
- (7) Issued pursuant to the exercise of broker warrants originally issued pursuant to the 2020 Public Offering.

(8) Issued pursuant to the exercise of stock options granted under the 2017 Stock Option Plan.

Warrants/Compensation Options

| Date | Exercise Price | Number of Warrants/Compensation Options Issued |
|------------------|----------------|--|
| October 17, 2019 | \$1.75 | 2,653,846 ⁽⁹⁾ |
| March 17, 2020 | \$3.10 | 790,323 ⁽¹⁰⁾ |
| April 15, 2020 | \$3.10 | 118,547 ⁽¹⁰⁾ |

Notes:

- (9) Warrants entitling the holders thereof to purchase Common Shares at a price of \$1.75 per Common Share until October 17, 2022 forming part of units issued at a price of \$1.30 per unit pursuant to the 2019 Public Offering.
- (10) Compensation options entitling the holders thereof to purchase Common Shares at a price of \$3.10 per Common Share until March 17, 2022.

| Date | Stock Options ⁽¹¹⁾ Exercise Price (\$) | Number of Stock Options Granted |
|------------------|---|------------------------------------|
| November 8, 2019 | \$1.30 | 1,030,000 |

Note:

(11) Granted pursuant to the Corporation's stock option plan.

USE OF PROCEEDS

The aggregate proceeds of distributions of Securities under this Prospectus shall not exceed \$100,000,000. Unless otherwise indicated in a Prospectus Supplement, the net proceeds that the Corporation receives from the sale of the Securities offered by this Prospectus will be used potentially to (i) ongoing research and development activities, (ii) working capital and general corporate purposes, which may include advancing the development of MDNA55 or MDNA11 and (iii) investment in other development programs. Specific information about the use of net proceeds will be set out in the applicable Prospectus Supplement.

While the Corporation intends to use the net proceeds that it receives from the sale of the Securities offered by this Prospectus as outlined above or in the applicable Prospectus Supplement, the timing and actual use of the net proceeds may vary depending on operating and capital needs, the progress and outcome of the Corporation's non-clinical activities, clinical trials and research and development programs and business and operations circumstances. There may be circumstances where, on the basis of results obtained or for other sound business reasons, a re-allocation of funds may be necessary or prudent. Accordingly, management of the Corporation will have broad discretion in the application of the proceeds of an offering of Securities. The actual amount the Corporation spends in connection with each intended use of proceeds may vary significantly from the amounts specified in the applicable Prospectus Supplement and will depend on a number of factors, including those referred to under "*Risk Factors*" in the AIF and any other factors set forth in the applicable Prospectus Supplement.

The Corporation has not allocated any portion of the net proceeds for any particular use as of the date of this Prospectus, nor has it entered into any negotiations regarding any potential future transaction or signed any letter of intent or initiated due diligence on any such future transaction. The net proceeds may be invested temporarily until they are used for their stated purpose.

Negative Cash Flows from Operating Activities

The Corporation has not generated any revenue from product sales to date and it is possible that it will never have sufficient product sales revenue to achieve profitability and positive cash flow. Management expects that the Corporation will continue to incur losses for at least the next three years as it pursues further development of MDNA55 for the treatment of recurrent glioblastoma and MDNA11 for solid tumors. To become profitable, the Corporation must successfully develop, manufacture, market and sell MDNA55 or MDNA11 or, alternatively, license either product to a pharmaceutical partner who could do so on behalf of Medicenna and pay certain milestone and royalty payments to Medicenna. Based on the highly competitive market, it is possible that the Corporation will never achieve significant product sales revenue. If funding is insufficient at any time in the future, the Corporation may not be able to develop or commercialize its products, take advantage of business opportunities or respond to competitive pressures. It is expected that some of the proceeds from the Offering will be used to fund anticipated negative cash flow from operating activities. See "Risk Factors — Negative Operating Cashflow".

As of June 30, 2020, the working capital balance of the Corporation was approximately \$39,260,860 with a monthly cash burn rate of approximately \$826,000 during the quarter ended June 30, 2020.

PLAN OF DISTRIBUTION

The Corporation may sell the Securities offered by this Prospectus to or through underwriters or dealers, and also may sell those Securities to one or more other purchasers directly or through agents, including sales pursuant to ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers, or if indicated in a Prospectus Supplement, pursuant to delayed delivery contracts, by remarketing firms or by other means. Underwriters may sell Securities to or through dealers. Each Prospectus Supplement will set forth the terms of the offering, including the name or names of any underwriters, dealers or agents and any fees or compensation payable to them in connection with the offering and sale of a particular series or issue of Securities, the public offering price or prices of the Securities and the proceeds from the sale of the Securities.

The Securities may be sold, from time to time, in one or more transactions at a fixed price or prices which may be changed or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, including sales in transactions that are deemed to be "at-the-market distributions" as defined in National Instrument 44-102 — Shelf Distributions, including sales made directly on the TSX or other existing trading markets for the Securities. The prices at which the Securities may be offered may vary as between purchasers and during the period of distribution. If, in connection with the offering of Securities at a fixed price or prices, the underwriters have made a bona fide effort to sell all of the Securities at the initial offering price fixed in the applicable Prospectus Supplement, the public offering price may be decreased and thereafter further changed, from time to time, to an amount not greater than the initial public offering price fixed in such Prospectus Supplement, in which case the compensation realized by the underwriters will be decreased by the amount that the aggregate price paid by purchasers for the Securities is less than the gross proceeds paid by the underwriters to Medicenna.

The Prospectus Supplement for any of the Securities being offered will set forth the terms of the offering of those Securities, including the name or names of any underwriters, dealers or agents, the offering price of the Securities (in the event the offering is a fixed price distribution), the currency or currencies in which the Securities will be offered, the manner in which the offering price will be determined (in the event the offering is a non-fixed price distribution), the proceeds to the Corporation from that sale if determinable, any underwriting fees or discounts and other items constituting underwriters' compensation, any public offering price, and any discounts or concessions allowed or re-allowed or paid to dealers or agents. Only underwriters named in the relevant Prospectus Supplement are deemed to be underwriters in connection with the Securities offered by that Prospectus Supplement.

If underwriters purchase Securities as principal, the Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase those Securities will be subject to certain conditions precedent, and the underwriters will be obligated to purchase all the Securities offered by the Prospectus Supplement if any of such Securities are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. The Securities may also be sold directly by the Corporation at prices and upon terms agreed to by the purchaser and the Corporation or through agents designated by the Corporation from time to time. Any agent involved in the offering and sale of the Securities pursuant to this Prospectus will be named, and any commissions payable by the Corporation to that agent will be set forth, in the applicable Prospectus Supplement. Unless otherwise indicated in the Prospectus Supplement, any agent would be acting on a best efforts basis for the period of its appointment.

Underwriters, dealers and agents who participate in the distribution of the Securities may be entitled under agreements to be entered into with the Corporation to indemnification by the Corporation against certain liabilities, including liabilities under the *U.S. Securities Act of 1933*, as amended, and Canadian securities legislation, or to contribution with respect to payments which such underwriters, dealers or agents may be required to make in respect thereof. Such underwriters, dealers and agents may be customers of, engage in transactions with, or perform services for the Corporation in the ordinary course of business. Except as set forth in a Prospectus Supplement, in connection with any offering of Securities, other than an "at-the-market distribution", the underwriters, dealers or agents, as the case may be, may over-allot or

effect transactions intended to stabilize or maintain the market price of the Securities offered at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time.

Any offering of Preferred Shares, Subscription Receipts, Warrants or Units will be a new issue of securities with no established trading market. Unless otherwise specified in the applicable Prospectus Supplements, the Preferred Shares, Subscription Receipts, Warrants or Units will not be listed on any securities or stock exchange or on any automated dealer quotation system. Unless otherwise specified in the applicable Prospectus Supplements, there is no market through which the Preferred Shares, Subscription Receipts, Warrants or Units may be sold and purchasers may not be able to resell Preferred Shares, Subscription Receipts, Warrants or Units purchased under this Prospectus or any Prospectus Supplement. This may affect the pricing of the Preferred Shares, Subscription Receipts, Warrants or Units in the secondary market, the transparency and availability of trading prices, the liquidity of the Securities, and the extent of issuer regulation. Certain dealers may make a market in the Preferred Shares, Subscription Receipts, Warrants or Units.

The place, time of delivery, and other terms of the offered Securities will be described in the applicable Prospectus Supplement.

TRADING PRICE AND VOLUME

The Common Shares are listed for trading in Canada on the TSX under the symbol "MDNA". The following table shows the high and low trading prices and the aggregate volume of Common Shares traded on the TSX for each of the last 12 months (as reported by the TSX).

| Month | High | Low | Volume | |
|-----------|--------|--------|-----------|--|
| | 2 | 2019 | | |
| July | \$1.61 | \$1.02 | 936,043 | |
| August | \$1.43 | \$1.06 | 308,067 | |
| September | \$1.88 | \$0.94 | 799,169 | |
| October | \$1.48 | \$1.10 | 785,221 | |
| November | \$2.05 | \$1.27 | 2,702,400 | |
| December | \$3.87 | \$1.30 | 3,524,777 | |
| | 2 | 2020 | | |
| January | \$3.78 | \$2.41 | 3,596,527 | |
| February | \$4.86 | \$2.77 | 2,365,899 | |
| March | \$4.12 | \$2.15 | 5,105,194 | |
| April | \$3.88 | \$3.14 | 1,341,227 | |
| May | \$7.24 | \$3.06 | 2,703,200 | |
| June | \$7.25 | \$4.75 | 1,813,710 | |
| July 1-27 | \$6.49 | \$4.89 | 974,444 | |

DESCRIPTION OF SHARE CAPITAL

Authorized Capital

The authorized capital of the Corporation consists of an unlimited number of Common Shares and an unlimited number of Preferred Shares.

Common Shares

The holders of Common Shares are entitled to receive notice of and to attend all meetings of the Corporation's shareholders and to one vote in respect of each Common Share held at the record date for each such meeting. The holders of Common Shares are entitled to receive, if, as and when declared by the Corporation's board of directors, dividends in such amounts as shall be determined by the board. The holders of the Common Shares will participate *pro rata* in any distribution of the assets of the Corporation upon liquidation, dissolution or winding-up or other distribution of the assets of the Corporation. Such participation will be subject to the rights, privileges, restrictions and conditions attached to any of the Corporation's securities issued and outstanding at such time ranking in priority to the Common Shares upon the liquidation, dissolution or winding-up of the Corporation. Common Shares are issued only as fully paid and are non-assessable.

The Securities offered pursuant to this Prospectus may include Common Shares issuable upon conversion or exchange of any Preferred Shares of any series or upon conversion of any Subscription Receipts or upon exercise of any Warrants.

Preferred Shares

The Preferred Shares of the Corporation are issuable from time to time in one or more series as determined by the board of directors of the Corporation. The board of directors of the Corporation may determine, before issuance, the number of Preferred Shares which is to comprise each series and the designation, rights, privileges and conditions attaching to each series of Preferred Shares including with regards to any voting rights, the rate or amount of dividends, or the method of calculating dividends, the dates of payment thereof, the terms and conditions of redemption, purchase and conversion, if any, and any sinking fund or other provisions.

The Preferred Shares of each series shall, with respect to the payment of dividends and the distribution of assets or return of capital in the event of liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or any other return of capital or distribution of the assets of the Corporation amongst its shareholders for the purpose of winding up its affairs, be entitled to preference over the voting and non-voting Common Shares and over any other shares of the Corporation ranking by their terms junior to the Preferred Shares of that series. The Preferred Shares of any series may also be given such other preferences, not inconsistent with the articles of the Corporation, over the Common Shares and any other such Preferred Shares as may be determined by the board of directors of the Corporation.

If any cumulative dividends or amounts payable on the return of capital in respect of a series of Preferred Shares are not paid in full, all series of Preferred Shares shall participate rateably in respect of accumulated dividends and return of capital.

The description of general terms and provisions of Preferred Shares described in any Prospectus Supplement will include, where applicable:

- the number of Preferred Shares offered;
- the designation of the series;
- the price at which the Preferred Shares will be offered;
- the currency or currencies in which the Preferred Shares will be offered;
- the annual dividend rate, if any, and whether the dividend rate is fixed or variable, the date from which dividends will accrue, and the dividend payment dates;

- the price and the terms and conditions for redemption, if any, including redemption at the Corporation's option or at the option of the holder, including the time period for redemption, and payment of any accumulated dividends;
- the terms and conditions, if any, for conversion or exchange for shares of any other class of the Corporation or any other series of Preferred Shares, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;
- the voting rights, if any;
- the material United States and Canadian federal tax consequences of owning the Preferred Shares; and
- any other material terms, conditions and rights (or limitations on such rights) of the Preferred Shares.

Dividend Policy

The Corporation has not declared or paid any dividends since incorporation. The directors of the Corporation anticipate that the Corporation will retain all future earnings and other cash resources for the future operation and development of its business, and accordingly, do not intend to declare or pay any cash dividends in the foreseeable future. Payment of any future dividends will be at the discretion of the board of the directors after taking into account many factors including the Corporation's operating results, financial condition and current and anticipated cash assets.

DESCRIPTION OF SUBSCRIPTION RECEIPTS

The following description of the terms of Subscription Receipts sets forth certain general terms and provisions of Subscription Receipts in respect of which a Prospectus Supplement may be filed. The particular terms and provisions of Subscription Receipts offered by any Prospectus Supplement, and the extent to which the general terms and provisions described below may apply thereto, will be described in the Prospectus Supplement filed in respect of such Subscription Receipts.

Subscription Receipts may be offered separately or in combination with one or more other Securities. The Subscription Receipts will be issued under a subscription receipt agreement. A copy of the subscription receipt agreement will be filed by the Corporation with the applicable securities commission or similar regulatory authorities after it has been entered into by the Corporation and will be available electronically at www.sedar.com. Pursuant to the subscription receipt agreement, original purchasers of Subscription Receipts will have a contractual right of rescission against the Corporation, following the issuance of the underlying Common Shares or other securities to such purchasers upon the surrender or deemed surrender of the Subscription Receipts, to receive the amount paid for the Subscription Receipts in the event that this Prospectus and any amendment thereto contains a misrepresentation or is not delivered to such purchaser, provided such remedy for rescission is exercised within 180 days from the closing date of the offering of Subscription Receipts.

The description of general terms and provisions of Subscription Receipts described in any Prospectus Supplement will include, where applicable:

- · the number of Subscription Receipts offered;
- the price at which the Subscription Receipts will be offered;
- if other than Canadian dollars, the currency or currency unit in which the Subscription Receipts are denominated:
- the procedures for the exchange of the Subscription Receipts into Common Shares, Preferred Shares or other Securities;
- the number of Common Shares, Preferred Shares or other Securities that may be obtained upon exchange of each Subscription Receipt;
- the designation and terms of any other Securities with which the Subscription Receipts will be offered, if any, and the number of Subscription Receipts that will be offered with each Security;
- the terms applicable to the gross proceeds from the sale of the Subscription Receipts plus any interest earned thereon;
- the material United States and Canadian federal tax consequences of owning the Subscription Receipts; and
- any other material terms, conditions and rights (or limitations on such rights) of the Subscription Receipts.

The Corporation reserves the right to set forth in a Prospectus Supplement specific terms of the Subscription Receipts that are not within the options and parameters set forth in this Prospectus. In addition, to the extent that any particular terms of the Subscription Receipts described in a Prospectus Supplement differ from any of the terms described in this Prospectus, the description of such terms set forth in this Prospectus shall be deemed to have been superseded by the description of such differing terms set forth in such Prospectus Supplement with respect to such Subscription Receipts.

DESCRIPTION OF WARRANTS

The Corporation may issue Warrants for the purchase of Common Shares, Preferred Shares or other Securities. Warrants may be offered separately or together with other Securities offered by this Prospectus, as the case may be. Unless the applicable Prospectus Supplement otherwise indicates, each series of Warrants will be issued under a separate warrant indenture to be entered into between the Corporation and one or more banks or trust companies acting as warrant agent. The applicable Prospectus Supplement will include details of the warrant agreements covering the Warrants being offered. The warrant agent will act solely as the Corporation's agent and will not assume a relationship of agency with any holders of warrant certificates or beneficial owners of Warrants.

The following sets forth certain general terms and provisions of the Warrants offered under this Prospectus. The specific terms of the Warrants, and the extent to which the general terms described in this section apply to those Warrants, will be set forth in the applicable Prospectus Supplement. The terms of any Warrants offered under a Prospectus Supplement may differ from the terms described below.

The particular terms of each issue of Warrants will be described in the related Prospectus Supplement. This description will include some or all of the following:

- the designation and aggregate number of Warrants;
- the price at which the Warrants will be offered;
- the currency or currencies in which the Warrants will be offered;
- the date on which the right to exercise the Warrants will commence and the date on which the right will expire;
- the number of the designation and terms of the Common Shares, Preferred Shares or other Securities
 that may be purchased upon exercise of each Warrant and the price at which and currency or
 currencies in which the Common Shares, Preferred Shares or other Securities may be purchased upon
 exercise of each Warrant:
- the designation and terms of any Securities with which the Warrants will be offered, if any, and the number of the Warrants that will be offered with each security;
- the date or dates, if any, on or after which the Warrants and the related Securities will be transferable separately;
- if applicable, whether the Warrants will be subject to redemption or call and, if so, the terms of such redemption or call provisions;
- material United States and Canadian federal tax consequences of owning the Warrants; and
- any other material terms or conditions of the Warrants.

Each Warrant will entitle the holder to purchase Common Shares, Preferred Shares or other Securities, as specified in the applicable Prospectus Supplement at the exercise price that the Corporation describes therein. Unless the Corporation otherwise specifies in the applicable Prospectus Supplement, holders of the Warrants may exercise the Warrants at any time up to the specified time on the expiration date that it sets forth in the applicable Prospectus Supplement. After the close of business on the expiration date, unexercised Warrants will become void.

The warrant indenture, if any, and the warrant certificate will specify that upon the subdivision, consolidation, reclassification or other material change of the underlying Common Shares, Preferred Shares or other Securities or any other reorganization, amalgamation, merger or sale of all or substantially all of the Corporation's assets, the Warrants will thereafter evidence the right of the holder to receive the Securities, property or cash deliverable in exchange for or on the conversion of or in respect of the Common Shares, Preferred Shares or other Securities to which the holder of similar securities of the Corporation would have been entitled immediately after such event. Similarly, any distribution to all or substantially all of the holders of Common Shares, Preferred Shares or other Securities of rights, options, warrants, evidences of indebtedness or assets will result in an adjustment in the number of Common Shares, Preferred Shares or other Securities, as the case may be, to be issued to holders of Warrants.

Prior to the exercise of any Warrants, holders of the Warrants will not have any of the rights of holders of the underlying securities of the Corporation, including the right to receive payments of dividends, if any, on the underlying securities of the Corporation, or to exercise any applicable right to vote.

DESCRIPTION OF UNITS

The Corporation may issue Units comprised of one or more of the other Securities that may be offered under this Prospectus, in any combination. The following information, together with the additional information the Corporation may include in any applicable Prospectus Supplements, summarizes the material terms and provisions of any such the Units that it may offer under this Prospectus. While the information below will apply generally to any Units that the Corporation may offer under this Prospectus, the Corporation will describe the particular terms of any series of Units in detail in the applicable Prospectus Supplement. The terms of any Units offered under a Prospectus Supplement may differ from the general terms described below.

The Corporation may file the form of unit agreement, if any, between the Corporation and a unit agent that describes the terms and conditions of the series of Units the Corporation is offering, and any supplemental agreements, concurrently with the filing of the applicable Prospectus Supplement under which such series of Units are offered. This summary is subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement, if any, and any supplemental agreements applicable to a particular series of Units. Medicenna urges you to read the applicable Prospectus Supplements related to the particular series of Units that it sells under this Prospectus, as well as the complete unit agreement, if any, and any supplemental agreements that contain the terms of the Units.

The Corporation may issue Units comprising one or more of Common Shares, Preferred Shares, Subscription Receipts or Warrants in any combination. Each Unit will be issued so that the holder of the Unit is also the holder of each Security included in the Unit. Thus, the holder of a Unit will have the rights and obligations of a holder of each included Security. The unit agreement, under which a Unit may be issued, if any, may provide that the Securities included in the Unit may not be held or transferred separately, at any time or at any time before a specified date. The Corporation will describe in the applicable Prospectus Supplement the terms of the series of Units.

The provisions described in this section, as well as those described under "Description of Share Capital", "Description of Subscription Receipts" and "Description of Warrants" will apply to each Unit and to any Common Share, Preferred Share, Subscription Receipt or Warrant included in each Unit, respectively.

The Corporation may issue Units in such amounts and in numerous distinct series as it determines.

RISK FACTORS

Investing in the Securities is speculative and involves a high degree of risk. You should carefully consider the risks set out below and under the heading "*Risk Factors*" beginning on page 23 of the AIF, and the other documents incorporated by reference in this Prospectus, that summarize the risks that may materially affect the Corporation's business before making an investment in the Securities. If any of these risks occur, the Corporation's business, results of operations or financial condition could be materially adversely affected. In that case, the trading price of the securities could decline, and you may lose all or part of your investment. The risks set out in the documents indicated above are not the only risks the Corporation faces. You should also refer to the other information set forth in this Prospectus as well as those incorporated by reference herein and therein, including financial statements and the related notes. The following are certain risks related to the Offering.

Negative Operating Cashflow

The Corporation has a history of losses, and there is no assurance that any of its contemplated products will generate sustainable earnings, be profitable or provide a return on investment in the future. The Corporation has not paid dividends in the past. Its directors will determine the future dividend policy of the Corporation if the Corporation generates earnings in the future, based on operational circumstances at that time. The Corporation had negative cash flow from operating activities for its fiscal year ended March 31, 2020 and this negative cash flow is expected to continue. The Corporation may also be required to raise additional funds through the issuance of equity. There can be no assurance that additional capital or other types of financing will be available when needed or that these financings will be on terms favourable to the Corporation. See "Use of Proceeds".

The Common Shares are Subject to Market Price Volatility

The market price of the Common Shares may be adversely affected by a variety of factors relating to the Corporation's business, including fluctuations in the Corporation's operating and financial results, the results of any public announcements made by the Corporation and the Corporation's failure to meet analysts' expectations. In addition, from time to time, the stock market experiences significant price and volume volatility that may affect the market price of the Common Shares for reasons unrelated to the Corporation's performance. Additionally, the value of the Common Shares is subject to market value fluctuations based upon factors which influence the Corporation's operations, such as legislative or regulatory developments, competition, technological change and the performance of equity markets and changes in interest rates.

Additional Issuance of Common Shares May Result in Dilution

The Corporation's articles allow it to issue an unlimited number of Common Shares for such consideration and on such terms and conditions as shall be established by the board of directors of the Corporation, in many cases, without the approval of the Corporation's shareholders. The Corporation may issue additional Common Shares in subsequent offerings (including through the sale of securities convertible into or exchangeable for Common Shares) and on the exercise of stock options or other securities exercisable for Common Shares. The Corporation may also issue Common Shares to finance future acquisitions. The Corporation cannot predict the size of future issuances of Common Shares or the effect that future issuances and sales of Common Shares will have on the market price of the Common Shares. Issuances of a substantial number of additional Common Shares, or the perception that such issuances could occur, may adversely affect prevailing market prices for the Common Shares. With any additional issuance of Common Shares, investors will suffer dilution to their voting power and the Corporation may experience dilution in its earnings per share.

The Corporation's Operations Could Be Adversely Affected by Events Outside of its Control, such as Natural Disasters, Wars or Health Epidemics

The Corporation may be impacted by business interruptions resulting from pandemics and public health emergencies, including those related to COVID-19 coronavirus, geopolitical actions, including war and terrorism or natural disasters including earthquakes, typhoons, floods and fires. An outbreak of infectious disease, a pandemic or a similar public health threat, such as the recent outbreak of the novel coronavirus

known as COVID-19, or a fear of any of the foregoing, could adversely impact the Corporation by causing operating, manufacturing supply chain, clinical trial and project development delays and disruptions, labour shortages, travel and shipping disruption and shutdowns (including as a result of government regulation and prevention measures) The Corporation may incur expenses or delays relating to such events outside of its control, which could have a material adverse impact on its business, ability to achieve stated milestones, operating results and financial condition. It is anticipated that the spread of COVID-19 and global measures to contain it, will have an impact on the Corporation, however it is challenging to quantify the potential magnitude of such impact at this time. The Corporation believes that the ongoing COVID-19 restrictions could impact the planned clinical development timelines of its programs, including the timing of the End of Phase 2 clinical study meeting for MDNA55 with the US FDA and the ongoing pre-clinical and future clinical activities related to the MDNA109 platform (MDNA19 and MDNA11).

Enforcement of Judgments Against Foreign Persons may not be Possible

Canadian investors should be aware that each of the Non-Resident Directors resides outside of Canada; as a result, it may not be possible for purchasers of the Offered Shares to effect service of process within Canada upon the Non-Resident Directors. All or a substantial portion of the assets of each of the Non-Resident Directors are likely to be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against the Non-Resident Directors in Canada or to enforce a judgment obtained in Canadian courts against the Non-Resident Directors outside of Canada.

United States Investors may not be able to Obtain Enforcement of Civil Liabilities Against the Corporation

The enforcement by investors of civil liabilities under the United States federal or state securities laws may be affected adversely by the fact that the Corporation is governed by the *Canada Business Corporations Act*, that the majority of the Corporation officers and directors are residents of Canada, and that all, or a substantial portion of their assets and a substantial portion of the Corporation's assets, are located outside the United States. It may not be possible for investors to effect service of process within the United States on certain of its directors and officers or enforce judgments obtained in the United States courts against the Corporation or certain of the Corporation's directors and officers based upon the civil liability provisions of United States federal securities laws or the securities laws of any state of the United States.

There is some doubt as to whether a judgment of a United States court based solely upon the civil liability provisions of United States federal or state securities laws would be enforceable in Canada against the Corporation or its directors and officers. There is also doubt as to whether an original action could be brought in Canada against the Corporation or its directors and officers to enforce liabilities based solely upon United States federal or state securities laws.

If the Corporation is Treated as a Passive Foreign Investment Company, U.S. Holders may be Subject to Adverse U.S. Federal Income Tax Consequences

Under the U.S. Internal Revenue Code of 1986, as amended (the "Code"), the Corporation will be classified as a passive foreign investment company ("PFIC") in respect of any taxable year in which either (i) 75% or more of the Corporation's gross income consists of certain types of "passive income" or (ii) 50% or more of the average quarterly value of the Corporation's assets is attributable to "passive assets" (assets that produce or are held for the production of passive income). For purposes of these tests, passive income includes dividends, interest, gains from the sale or exchange of investment property and certain rents and royalties. In addition, for purposes of the above calculations, if the Corporation directly or indirectly owns at least 25% by value of the shares of another corporation, the Corporation will be treated as if it held its proportionate share of the assets and received directly its proportionate share of the income of such other corporation. PFIC status is a factual determination that needs to be made annually after the close of each taxable year, on the basis of the composition of the Corporation's income, the relative value of the Corporation's active and passive assets, and the Corporation's market capitalization. For this purpose, the Corporation's PFIC status depends in part on the application of complex rules, which may be subject to differing interpretations, relating to the classification of the Corporation's income and assets. Based on the Corporation's interpretation of the law, its recent financial statements, and taking into account expectations

about its income, assets and activities, the Corporation believes that it was a PFIC for the taxable year ended March 31, 2020, and expects that it will be a PFIC for the current taxable year.

If the Corporation is a PFIC for any taxable year during which a U.S. Holder (as defined below under "Certain U.S. Federal Income Tax Considerations") holds the Common Shares, the Corporation will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns the Common Shares, regardless of whether the Corporation continues to meet the PFIC test described above, unless the U.S. Holder makes a specified election once the Corporation ceases to be a PFIC. If the Corporation is classified as a PFIC for any taxable year during which a U.S. Holder holds the Common Shares, the U.S. Holder may be subject to adverse tax consequences regardless of whether the Corporation continues to qualify as a PFIC, including ineligibility for any preferred tax rates on capital gains or on actual or deemed dividends, interest charges on certain taxes treated as deferred, and additional reporting requirements. In certain circumstances, a U.S. Holder may alleviate some of the adverse tax consequences attributable to PFIC status by making either a "qualified electing fund" ("QEF") election or a mark-to-market election (if the Common Shares constitute "marketable" securities under the Code).

For further discussion of the PFIC rules and the adverse U.S. federal income tax consequences in the event the Corporation is classified as a PFIC, see the section of this prospectus entitled "Certain U.S. Federal Income Tax Considerations."

As a Foreign Private Issuer, the Corporation is Subject to Different U.S. Securities Laws and Rules than a Domestic U.S. Issuer, which may Limit the Information Publicly Available to its U.S. Shareholders

The Corporation is a foreign private issuer under applicable U.S. federal securities laws and, therefore, is not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act and related rules and regulations. As a result, the Corporation does not file the same reports that a U.S. domestic issuer would file with the SEC, although it will be required to file with or furnish to the SEC the continuous disclosure documents that the Corporation is required to file in Canada under Canadian securities laws. In addition, the Corporation's officers, directors and principal shareholders are exempt from the reporting and "short swing" profit recovery provisions of Section 16 of the Exchange Act. Therefore, the Corporation's shareholders may not know on as timely a basis when its officers, directors and principal shareholders purchase or sell securities of the Corporation as the reporting periods under the corresponding Canadian insider reporting requirements are longer. In addition, as a foreign private issuer, the Corporation is exempt from the proxy rules under the Exchange Act.

The Corporation may Lose its Foreign Private Issuer Status in the Future, which could Result in Significant Additional Costs and Expenses to the Corporation

In order to maintain its current status as a foreign private issuer, a majority of the Corporation's Common Shares must be either directly or indirectly owned of record by non-residents of the United States unless the Corporation also satisfies one of the additional requirements necessary to preserve this status. The Corporation may in the future lose its foreign private issuer status if a majority of the Common Shares are owned of record in the United States and the Corporation fails to meet the additional requirements necessary to avoid loss of foreign private issuer status. The regulatory and compliance costs to the Corporation under U.S. federal securities laws as a U.S. domestic issuer may be significantly more than the costs the Corporation incurs as a Canadian foreign private issuer eligible to use MJDS. If the Corporation is not a foreign private issuer, it would not be eligible to use the MJDS or other foreign issuer forms and would be required to file periodic and current reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive than the forms available to a foreign private issuer.

CERTAIN CANADIAN FEDERAL INCOME TAX CONSIDERATIONS

The applicable Prospectus Supplement may describe certain Canadian federal income tax consequences to an investor who is a resident of Canada or who is a non-resident of Canada of acquiring, owning or disposing of any Securities offered thereunder, including to the extent applicable, whether any dividends or interest relating to the Securities will be subject to Canadian non-resident withholding tax.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

Subject to the limitations and qualifications stated herein, this discussion sets forth material U.S. federal income tax considerations relating to the acquisition, ownership and disposition by U.S. Holders (as hereinafter defined) of the Common Shares. The discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), its legislative history, existing and proposed regulations thereunder, published rulings and court decisions, and the Canada-United States Income Tax Convention (1980) as amended (the "Treaty") all as currently in effect and all subject to change at any time, possibly with retroactive effect. This summary applies only to U.S. Holders. This discussion of a U.S. Holder's tax consequences addresses only those persons that acquire Common Shares in this offering and that hold those Common Shares as capital assets (generally, property held for investment). In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including state and local tax consequences, estate and gift tax consequences, alternative minimum tax consequences, and tax consequences applicable to U.S. Holders subject to special rules, such as:

- banks, insurance companies, and certain other financial institutions;
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- · dealers or traders in securities who use a mark-to-market method of tax accounting;
- persons holding Common Shares as part of a hedging transaction, "straddle," wash sale, conversion transaction or integrated transaction or persons entering into a constructive sale with respect to Common Shares;
- persons whose "functional currency" for U.S. federal income tax purposes is not the U.S. dollar;
- brokers, dealers or traders in securities, commodities or currencies;
- · tax-exempt entities or government organizations;
- S corporations, partnerships, or other entities or arrangements classified as partnerships for U.S. federal income tax purposes;
- regulated investment companies or real estate investment trusts;
- persons who acquired the Common Shares pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons required to accelerate the recognition of any item of gross income with respect to the Common Shares as a result of such income being recognized on an applicable financial statement;
- persons holding the Common Shares in connection with a trade or business, permanent establishment, or fixed base outside the United States; and
- persons who own (directly or through attribution) 10% or more (by vote or value) of the outstanding Common Shares.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds Common Shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding Common Shares and partners in such partnerships are encouraged to consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of Common Shares.

A "U.S. Holder" is a holder who, for U.S. federal income tax purposes, is a beneficial owner of Common Shares and is:

- An individual who is a citizen or individual resident of United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia;
- · an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect to be treated as a U.S. person under applicable U.S. Treasury Regulations.

PERSONS CONSIDERING AN INVESTMENT IN COMMON SHARES SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES APPLICABLE TO THEM RELATING TO THE ACQUISITION, OWNERSHIP AND DISPOSITION OF THE COMMON SHARES, INCLUDING THE APPLICABILITY OF U.S. FEDERAL, STATE AND LOCAL TAX LAWS.

Passive Foreign Investment Company Rules

If the Corporation is classified as a PFIC in any taxable year, a U.S. Holder will be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. Holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A non-U.S. corporation will be classified as a PFIC for any taxable year in which, after applying certain look-through rules, either:

- at least 75% of its gross income is passive income (such as interest income); or
- at least 50% of its gross assets (determined on the basis of a quarterly average) is attributable to assets that produce passive income or are held for the production of passive income.

The Corporation will be treated as owning its proportionate share of the assets and earning its proportionate share of the income of any other corporation, the equity of which it owns, directly or indirectly, 25% or more (by value).

Based on the Corporation's interpretation of the law, the Corporation's recent financial statements, and taking into account expectations about the Corporation's income, assets and activities, the Corporation believes that it was a PFIC for the taxable year ended March 31, 2020 and expects that it will be a PFIC for the current taxable year. A separate determination must be made after the close of each taxable year as to whether the Corporation is a PFIC for that year, and as a result, its PFIC status may change from year to year. The total value of the Corporation's assets for purposes of the asset test generally will be calculated using the market price of the Common Shares, which may fluctuate considerably. Fluctuations in the market price of the Common Shares may result in the Corporation's being a PFIC for any taxable year. Because of the uncertainties involved in establishing the Corporation's PFIC status, there can be no assurance regarding if the Corporation currently is treated as a PFIC, or may be treated as a PFIC in the future.

If the Corporation is classified as a PFIC in any year with respect to which a U.S. Holder owns the Common Shares, the Corporation will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns the Common Shares, regardless of whether the Corporation continues to meet the tests described above unless (i) the Corporation ceases to be a PFIC and the U.S. Holder has made a "deemed sale" election under the PFIC rules, or (ii) the U.S. Holder makes a Qualified Electing Fund Election ("QEF Election") with respect to all taxable years during such U.S. Holders holding period in which the Corporation is a PFIC. If the "deemed sale" election is made, a U.S. Holder will be deemed to have sold the Common Shares the U.S. Holder holds at their fair market value and any gain from such deemed sale would be subject to the rules described below. After the deemed sale election, so long as the Corporation does not become a PFIC in a subsequent taxable year, the U.S. Holder's Common Shares with respect to which such election was made will not be treated as shares in a PFIC and the U.S. Holder will not be subject to the rules described below with respect to any "excess distribution" the U.S.

Holder receives from us or any gain from an actual sale or other disposition of the Common Shares. U.S. Holders should consult their tax advisors as to the possibility and consequences of making a deemed sale election if the Corporation ceases to be a PFIC and such election becomes available.

For each taxable year the Corporation is treated as a PFIC with respect to U.S. Holders, U.S. Holders will be subject to special tax rules with respect to any "excess distribution" such U.S. Holder receives and any gain such U.S. Holder receives from a sale or other disposition (including, under certain circumstances, a pledge) of Common Shares, unless (i) such U.S. Holder makes a QEF Election or (ii) the Common Shares constitute "marketable" securities, and such U.S. Holder makes a mark-to-market election as discussed below. Absent the making of a QEF Election or a mark-to-market election, distributions a U.S. Holder receives in a taxable year that are greater than 125% of the average annual distributions a U.S. Holder received during the shorter of the three preceding taxable years or the U.S. Holder's holding period for the Common Shares will be treated as an excess distribution. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over a U.S. Holder's holding period for the Common Shares:
- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which the Corporation became a PFIC, will be treated as ordinary income; and
- the amount allocated to each other year will be subject to the highest tax rate in effect for that year and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

The tax liability for amounts allocated to years prior to the year of disposition or "excess distribution" cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the Common Shares cannot be treated as capital, even if a U.S. Holder holds the Common Shares as capital assets.

In addition, if the Corporation is a PFIC, a U.S. Holder will generally be subject to similar rules with respect to distributions the Corporation receives from, and the Corporation's dispositions of the stock of, any of the Corporation's direct or indirect subsidiaries that also are PFICs, as if such distributions were indirectly received by, and/or dispositions were indirectly carried out by, such U.S. Holder. U.S. Holders should consult their tax advisors regarding the application of the PFIC rules to the Corporation's subsidiaries.

If a U.S. Holder makes an effective QEF Election, the U.S. Holder will be required to include in gross income each year, whether or not the Corporation makes distributions, as capital gains, such U.S. Holder's pro rata share of the Corporation's net capital gains and, as ordinary income, such U.S. Holder's pro rata share of the Corporation's earnings in excess of the Corporation's net capital gains. If the Corporation determines that it is a PFIC for this year or any future taxable year, the Corporation currently expects that it would provide the information necessary for U.S. Holders to make a QEF Election.

U.S. Holders also can avoid the interest charge on excess distributions or gain relating to the Common Shares by making a mark-to-market election with respect to the Common Shares, provided that the Common Shares are "marketable." Common Shares will be marketable if they are "regularly traded" on certain U.S. stock exchanges or on a foreign stock exchange that meets certain conditions. For these purposes, the Common Shares will be considered regularly traded during any calendar year during which they are traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. Any trades that have as their principal purpose meeting this requirement will be disregarded. The Common Shares are listed on the TSX, which is a qualified exchange for these purposes. Consequently, if the Common Shares remain listed on the TSX and are regularly traded, and you are a holder of Common Shares, the Corporation expects the mark-to-market election would be available to U.S. Holders if the Corporation is a PFIC. Each U.S. Holder should consult its tax advisor as to the whether a mark-to-market election is available or advisable with respect to the Common Shares.

A U.S. Holder that makes a mark-to-market election must include in ordinary income for each year an amount equal to the excess, if any, of the fair market value of the Common Shares at the close of the taxable year over the U.S. Holder's adjusted tax basis in the Common Shares. An electing holder may also claim an ordinary loss deduction for the excess, if any, of the U.S. Holder's adjusted basis in the Common Shares

over the fair market value of the Common Shares at the close of the taxable year, but this deduction is allowable only to the extent of any net mark-to-market gains for prior years. Gains from an actual sale or other disposition of the Common Shares will be treated as ordinary income, and any losses incurred on a sale or other disposition of the shares will be treated as an ordinary loss to the extent of any net mark-to-market gains for prior years. Once made, the election cannot be revoked without the consent of the Internal Revenue Service (the "IRS"), unless the Common Shares cease to be marketable.

However, a mark-to-market election generally cannot be made for equity interests in any lower-tier PFICs that we own, unless shares of such lower-tier PFIC are themselves "marketable." As a result, even if a U.S. Holder validly makes a mark-to-market election with respect to the Common Shares, the U.S. Holder may continue to be subject to the PFIC rules (described above) with respect to its indirect interest in any of the Corporation's investments that are treated as an equity interest in a PFIC for U.S. federal income tax purposes. U.S. Holders should consult their tax advisors to determine whether any of these elections would be available and if so, what the consequences of the alternative treatments would be in their particular circumstances.

Unless otherwise provided by the United States Treasury Department (the "U.S. Treasury"), each U.S. shareholder of a PFIC is required to file an annual report containing such information as the U.S. Treasury may require. A U.S. Holder's failure to file the annual report will cause the statute of limitations for such U.S. Holder's U.S. federal income tax return to remain open with regard to the items required to be included in such report until three years after the U.S. Holder files the annual report, and, unless such failure is due to reasonable cause and not willful neglect, the statute of limitations for the U.S. Holder's entire U.S. federal income tax return will remain open during such period. U.S. Holders should consult their tax advisors regarding the requirements of filing such information returns under these rules.

WE STRONGLY URGE YOU TO CONSULT YOUR TAX ADVISOR REGARDING THE IMPACT OF THE CORPORATION'S PFIC STATUS ON YOUR INVESTMENT IN THE COMMON SHARES AS WELL AS THE APPLICATION OF THE PFIC RULES TO YOUR INVESTMENT IN THE COMMON SHARES.

Cash Dividends and Other Distributions

Subject to the discussion under "Passive Foreign Investment Company Rules" above, to the extent there are any distributions made with respect to the Common Shares, a U.S. Holder generally will be required to include in its gross income distributions received with respect to its Common Shares (including the amount of Canadian taxes withheld, if any) as dividend income, but only to the extent that the distribution is paid out of the Corporation's current or accumulated earnings and profits (computed using U.S. federal income tax principles), with the excess treated first as a non-taxable return of capital to the extent of the holder's adjusted tax basis in its Common Shares and, thereafter, as capital gain recognized on a sale or exchange on the day actually or constructively received by the holder (as described below under "Sale or Disposition of Common Shares"). There can be no assurance that the Corporation will maintain calculations of the Corporation's earnings and profits in accordance with U.S. federal income tax accounting principles. U.S. Holders should therefore assume that any distribution with respect to the Common Shares will constitute ordinary dividend income. Dividends paid on the Common Shares will not be eligible for the dividends received deduction allowed to U.S. corporations.

Dividends paid to a non-corporate U.S. Holder by a "qualified foreign corporation" may be subject to reduced rates of taxation if certain holding period and other requirements are met. A qualified foreign corporation generally includes a foreign corporation if (i) its Common Shares are readily tradable on an established securities market in the United States or it is eligible for benefits under a comprehensive U.S. income tax treaty that includes an exchange of information program and which the U.S. Treasury has determined is satisfactory for these purposes and (ii) if such foreign corporation is not a PFIC (as discussed above) for either the taxable year in which the dividend is paid or the preceding taxable year. While the Common Shares are not expected to be readily tradable on an established securities market in the United States, the Corporation may be eligible for the benefits of the Treaty. Accordingly, subject to the PFIC rules discussed above, a non-corporate U.S. Holder may qualify for the reduced rate on dividends so long as the applicable holding period requirements are met. U.S. Holders should consult their own tax advisors regarding the availability of the reduced tax rate on dividends in light of their particular circumstances.

Distributions paid in a currency other than U.S. dollars will be included in a U.S. Holder's gross income in a U.S. dollar amount based on the spot exchange rate in effect on the date of actual or constructive receipt, whether or not the payment is converted into U.S. dollars at that time. The U.S. Holder will have a tax basis in such currency equal to such U.S. dollar amount, and any gain or loss recognized upon a subsequent sale or conversion of the foreign currency for a different U.S. dollar amount will generally be U.S. source ordinary income or loss.

If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder generally should generally not be required to recognize foreign currency gain or loss in respect of the dividend income.

If a U.S. Holder is subject to Canadian withholding taxes (at the rate applicable to such U.S. Holder) with respect to dividends paid on the Common Shares, such U.S. Holder may be entitled to receive either a deduction or a foreign tax credit for such Canadian taxes paid. Complex limitations apply to the foreign tax credit. Dividends paid by us generally will constitute "foreign source" income and generally will be categorized as "passive category income." Because the foreign tax credit rules are complex, each U.S. Holder should consult its own tax advisor regarding the foreign tax credit rules.

Sale or Disposition of Common Shares

A U.S. Holder generally will recognize gain or loss on the taxable sale or exchange of the Common Shares in an amount equal to the difference between the U.S. dollar amount realized on such sale or exchange (determined in the case of the Common Shares sold or exchanged for currencies other than U.S. dollars by reference to the spot exchange rate in effect on the date of the sale or exchange or, if the Common Shares sold or exchanged are traded on an established securities market and the U.S. Holder is a cash basis taxpayer or an electing accrual basis taxpayer, which election must be applied consistently from year to year and cannot be changed without the consent of the IRS, the spot exchange rate in effect on the settlement date) and the U.S. Holder's adjusted tax basis in the Common Shares determined in U.S. dollars. The initial tax basis of the Common Shares to a U.S. Holder will be the U.S. Holder's U.S. dollar purchase price for the Common Shares (determined by reference to the spot exchange rate in effect on the date of the purchase, or if the Common Shares purchased are traded on an established securities market and the U.S. Holder is a cash basis taxpayer or an electing accrual basis taxpayer, which election must be applied consistently from year to year and cannot be changed without the consent of the IRS, the spot exchange rate in effect on the settlement date). An accrual basis U.S. Holder that does not make the special election will recognize exchange gain or loss to the extent attributable to the difference between the exchange rates on the sale date and the settlement date, and such exchange gain or loss generally will constitute ordinary income or loss.

Subject to the discussion under "Passive Foreign Investment Company Rules" above, such gain or loss will be capital gain or loss and will be long-term gain or loss if the Common Shares have been held for more than one year. Under current law, long-term capital gains of non-corporate U.S. Holders generally are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations. Capital gain or loss, if any, recognized by a U.S. Holder generally will be treated as U.S. source income or loss for U.S. foreign tax credit purposes. U.S. Holders are encouraged to consult their own tax advisors regarding the availability of the U.S. foreign tax credit in their particular circumstances.

Medicare Contribution Tax

Certain U.S. Holders that are individuals, estates or certain trusts must pay a 3.8% tax, or "Medicare contribution tax", on their "net investment income." Net investment income generally includes, among other things, dividend income and net gains from the disposition of stock. A U.S. Holder that is an individual, estate or trust should consult its tax advisor regarding the applicability of the Medicare contribution tax to its income and gains in respect of its investment in the Common Shares.

Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of

backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding on a duly executed IRS Form W-9 or otherwise establishes an exemption.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that the required information is timely furnished to the IRS.

Certain Reporting Requirements

U.S. Holders paying more than \$100,000 for the Common Shares generally may be required to file IRS Form 926 reporting the payment of the offer price for the Common Shares to us. Substantial penalties may be imposed upon a U.S. Holder that fails to comply. Each U.S. Holder should consult its own tax advisor as to the possible obligation to file IRS Form 926.

Information with Respect to Foreign Financial Assets

Certain U.S. Holders who are individuals (and, under regulations, certain entities) may be required to report information relating to the Common Shares, subject to certain exceptions (including an exception for Common Shares held in accounts maintained by certain U.S. financial institutions), by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. Such U.S. Holders who fail to timely furnish the required information may be subject to a penalty. Additionally, if a U.S. Holder does not file the required information, the statute of limitations with respect to tax returns of the U.S. Holder to which the information relates may not close until three years after such information is filed. U.S. Holders should consult their tax advisers regarding their reporting obligations with respect to their ownership and disposition of the Common Shares.

LEGAL MATTERS

Unless otherwise specified in a Prospectus Supplement, certain legal matters relating to the offering of Securities under this Prospectus will be passed upon by McCarthy Tétrault LLP. In addition, certain legal matters in connection with any offering of Securities under this Prospectus will be passed upon for any underwriters, dealers or agents by counsel to be designated at the time of the offering by such underwriters, dealers or agents.

As of the date hereof, the partners and associates of McCarthy Tétrault LLP, as a group, beneficially owned, directly or indirectly, less than 1% of the outstanding Common Shares of the Corporation or any of its associates or affiliates.

Any offering of securities pursuant to this Prospectus, including by way of at-the-market offerings, will be conducted in accordance with applicable securities legislation, and, if applicable, will be subject to regulatory approval or exemptive relief.

AUDITORS

The Corporation's financial statements as at March 31, 2020 incorporated by reference in this Prospectus have been audited by Davidson & Company LLP, independent auditors, as set forth in their report incorporated by reference in this Prospectus. Davidson & Company LLP is independent with respect to the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of British Columbia.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Common Shares is TSX Trust Company at its principal offices in Toronto, Ontario, Canada.

PURCHASERS' STATUTORY RIGHTS AND CONTRACTUAL RIGHTS OF WITHDRAWAL AND RESCISSION

Securities legislation in certain of the provinces of Canada provides purchasers with the right to withdraw from an agreement to purchase Securities. This right may be exercised within two business days

after receipt or deemed receipt of a Prospectus, the accompanying Prospectus Supplements and any amendment. In several of the provinces of Canada, the securities legislation further provides a purchaser with remedies for rescission or, in some jurisdictions, revisions of the price or damages if the Prospectus, the accompanying Prospectus Supplements or any amendment contains a misrepresentation or is not delivered to the purchaser, provided that the remedies for rescission, revision of the price or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province for the particulars of these rights or consult with a legal adviser.

In an offering of Preferred Shares, Subscription Receipts, Warrants and Units (collectively, "Convertible Securities"), investors are cautioned that the statutory right of action for damages for a misrepresentation contained in the Prospectus and the accompanying Prospectus Supplements is limited, in certain provincial securities legislation, to the price at which such security is offered to the public under the Prospectus offering. This means that, under the securities legislation of certain provinces, if the purchaser pays additional amounts upon conversion, exchange or exercise of the security, those amounts may not be recoverable under the statutory right of action for damages that applies in those provinces. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province for the particulars of this right of action for damages or consult with a legal advisor. By virtue of their purchase of Convertible Securities, original purchasers will have a contractual right of rescission against the Corporation in respect of the conversion, exchange or exercise of such Convertible Securities. The contractual right of rescission will entitle such original purchasers to receive the amount paid upon conversion, exchange or exercise, upon surrender of the securities issued to such purchaser upon conversion of such Convertible Securities, in the event that this Prospectus, as supplemented by an applicable Prospectus Supplement relating to such Convertible Securities, as amended, contains a misrepresentation, provided that the right or rescission will be consistent with the statutory right of rescission described under section 130 of the Securities Act (Ontario), and is in addition to any other right or remedy available to original purchasers under section 130 of the Securities Act (Ontario) or otherwise to law. The purchaser should refer to any applicable provisions of the securities legislation of the province in which the purchaser resides for the particulars of these rights or consult with a legal advisor.

ENFORCEABILITY OF JUDGMENTS

The Corporation is incorporated under, and governed by, the laws of Canada. Many of its officers and directors and experts named in this Prospectus are resident outside of the United States, and a majority of their assets, and the assets of the Corporation, are located outside the United States. As a result, it may be difficult for U.S. investors to effect service of process within the United States upon those directors, officers or experts who are not residents of the United States, or to realize in the United States upon judgments of courts of the United States predicated upon civil liability of such directors, officers or experts under U.S. federal securities laws.

The Corporation has filed with the SEC, concurrently with the filing of its U.S. Registration Statement on Form F-10 of which this Prospectus forms a part, an appointment of agent for service of process and undertaking on Form F-X. Under the Form F-X, the Corporation appointed C T Corporation System as its agent for service of process in the United States in connection with any investigation or administrative proceeding conducted by the SEC, and any civil suit or action brought against or involving the Corporation in a U.S. court arising out of or related to or concerning the offering of Securities under the U.S. Registration Statement. However, it may not be possible for investors to enforce outside the United States judgments against the Corporation obtained in the United States in any such actions, including actions predicated upon the civil liability provisions of the United States federal and state securities laws.

US\$25,000,000 Common Shares



MEDICENNA THERAPEUTICS CORP.

Prospectus Supplement

December 30, 2020

SVB Leerink