

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

FORM S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

DIAMEDICA THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

British Columbia, Canada
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

Not Applicable
(I.R.S. Employer
Identification Number)

**2 Carlson Parkway, Suite 260
Minneapolis, Minnesota 55447
(763) 312-6755**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Rick Pauls
President and Chief Executive Officer
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price ⁽¹⁾	Amount of Registration Fee ⁽²⁾
Voting Common Shares, no par value per share ⁽³⁾⁽⁴⁾⁽⁵⁾		
Warrants ⁽⁵⁾		
Units ⁽⁶⁾		
Total	\$50,000,000	\$6,490.00

- (1) Not specified as to each class of securities to be registered hereunder pursuant to General Instruction II.D to Form S-3 under the Securities Act. Securities registered hereby may be sold separately or together with other securities registered hereby. Units may consist of two or more of the securities listed in the "Calculation of Registration Fee Table" offered and sold together.
- (2) The registration fee has been calculated in accordance with Rule 457(o) under the Securities Act.
- (3) Each voting common share, no par value per share ("common share"), includes one common share purchase right pursuant to a Shareholder Rights Plan Agreement dated December 21, 2017 by and between DiaMedica Therapeutics Inc. and Computershare Investor Services Inc. Any value attributable to such rights is reflected in the market price of the common shares.
- (4) The aggregate amount of common shares registered hereunder is limited, solely for purposes of any at-the-market offerings, to that which is permissible under Rule 415(a)(4).
- (5) Warrants will represent the right to purchase common shares.
- (6) Units may consist of two or more of the securities listed in the "Calculation of Registration Fee Table" offered and sold together.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission becomes effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JANUARY 2, 2020

PRELIMINARY PROSPECTUS



\$50,000,000

**Common Shares
Warrants
Units**

We may from time to time offer to sell any combination of common shares, warrants and units described in this prospectus in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$50,000,000.

This prospectus provides a general description of the securities that we may offer. Each time we sell securities, we will provide the specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.

We may from time to time offer and sell our securities in one offering or in separate offerings, to or through underwriters, dealers and agents or directly to purchasers. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common shares are listed on The Nasdaq Capital Market under the symbol "DMAC." On December 31, 2019, the closing price of our common shares as reported on The Nasdaq Capital Market was \$4.85 per share. As of the date of this prospectus, the aggregate market value of our common shares held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$52,130,710, which is calculated based on 10,748,600 common shares outstanding held by non-affiliates and a price of \$4.85 per share, the closing price of our common shares on December 31, 2019, as reported on The Nasdaq Capital Market. During the prior 12 calendar month period that ends on and includes the date hereof, we have not offered or sold any of our common shares or other securities pursuant to General Instruction I.B.6 to Form S-3. Pursuant to General Instruction I.B.6 to Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million.

We are an "emerging growth company," as defined under federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements. See "*About the Company – Implications of Being an Emerging Growth Company and Smaller Reporting Company*" beginning on page 3 of this prospectus.

Investing in our securities involves risks. You should consider carefully the risks and uncertainties set forth in the section entitled "Risk Factors" beginning on page 4 of this prospectus, in the related prospectus supplement, and in the documents we file with the Securities and Exchange Commission that are incorporated by reference in this prospectus before making a decision to purchase our securities.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is _____, 2020

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the United States Securities and Exchange Commission (SEC) utilizing a “shelf” registration process. Under this shelf registration process, we may offer and sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000.

This prospectus provides you with a general description of the respective securities that we may offer. Each time we sell securities under this shelf registration statement, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and the accompanying prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “*Where You Can Find More Information*” and “*Incorporation of Documents by Reference*.”

We have not authorized any dealer, salesperson or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

This prospectus may not be used to offer and sell securities unless it is accompanied by an additional prospectus or a prospectus supplement.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to “DiaMedica,” “the Company,” “we,” “us,” “our” or similar references mean DiaMedica Therapeutics Inc. and its subsidiaries. References in this prospectus to “voting common shares” or “common shares” mean our voting common shares, no par value per share.

All references in this prospectus to “\$,” “U.S. Dollars” and “dollars” are to United States dollars.

We own various unregistered trademarks and service marks, including our corporate logo. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that the owner of such trademarks and trade names will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

ABOUT THE COMPANY

Overview

We are a clinical stage biopharmaceutical company primarily focused on the development of novel recombinant proteins. Our goal is to use our trade secrets and patented and licensed technologies to establish our company as a leader in the development and commercialization of therapeutic treatments derived from novel recombinant proteins. Our current focus is on chronic kidney disease (CKD) and acute ischemic stroke (AIS). We plan to advance DM199, our lead drug candidate, through required clinical trials to create shareholder value by establishing its clinical and commercial potential as a therapy for CKD and AIS.

DM199 is a recombinant form of human tissue kallikrein-1 (KLK1). KLK1 is a serine protease (protein) produced primarily in the kidneys, pancreas and salivary glands that plays a critical role in the regulation of local blood flow and vasodilation (the widening of blood vessels, which decreases blood pressure) in the body, as well as an important role in inflammation and oxidative stress (an imbalance between potentially damaging reactive oxygen species, or free radicals, and antioxidants in your body). We believe DM199 has the potential to treat a variety of diseases where healthy functioning requires sufficient activity of KLK1 and its system, the kallikrein-kinin system (KKS).

AIS and CKD patients suffer from a lack of blood flow to the brain and kidneys, respectively. These patients also tend to exhibit lower than normal levels of endogenous KLK1. We believe treatment with DM199 could replenish low levels of endogenous KLK1, thereby releasing physiological levels of bradykinin (BK) when and where needed, generating beneficial nitric oxide and prostacyclin, setting in motion metabolic pathways that can improve blood flow (through vasoregulation) to damaged end-organs, such as the brain and kidneys, supporting structural integrity and normal functioning.

Today, forms of KLK1 derived from human urine and porcine pancreas are sold in Japan, China and Korea to treat AIS, CKD, retinopathy, hypertension and related vascular diseases. We believe millions of patients have been treated with these KLK1 therapies, and the data from more than 100 published papers and studies support their clinical benefit. However, there are numerous regulatory, commercial, and clinical drawbacks associated with KLK1 derived from human urine and porcine pancreas that can be overcome by developing a synthetic version of KLK1 such as DM199. We believe regulatory drawbacks are the primary reason why KLK1 derived from human urine and porcine pancreas are not currently available and used in the United States or Europe. We are not aware of any synthetic version of KLK1 with regulatory approval for human use in any country, nor are we aware of any synthetic version in development other than our drug candidate DM199. We believe at least five companies have attempted to create a synthetic version of KLK1, but have been unsuccessful.

In July 2019, we completed a Phase Ib clinical trial of DM199 in participants with moderate or severe CKD caused by Type I or Type II diabetes. We initiated dosing patients in this study in February 2019 and completed enrollment in July 2019. The study was performed to assess the pharmacokinetics (PK) of three dose levels of DM199 (3, 5 and 8 µg/kg), administered in a single subcutaneous dose, as well as the evaluation of safety, tolerability and secondary pharmacodynamic (PD) endpoints. The study results demonstrated that at the 3µg/kg dose level, the PK profiles were similar between moderate and severe CKD patients, and consistent with healthy subjects (normal kidney function) tested previously, and that DM199 was well tolerated with no dose-limiting tolerability. There were no deaths, no discontinuations due to a treatment-related adverse event (AE), and no treatment-related significant adverse events (SAEs). AEs were minor and consistent with standard treatment(s) in the CKD patient population. In addition, favorable overall PD results were also observed, including short-term improvements in Nitric Oxide (NO), average increase of 35.2%, Prostaglandin E2 (PGE2), average increase of 41.2%, estimated glomerular flow rate (eGFR), average increase of 4.08 mL/min/1.73m², and the urinary albumin to creatinine ratio (UACR), average decrease of 18.7%. PD results appeared to be drug related in that the greatest improvements occurred approximately 24 hours after DM199 administration and subsequently declined.

In December 2019, we began enrolling patients in a Phase II CKD trial named REDUX, Latin for restore, a multi-center, open-label investigation of approximately 60 participants with CKD, who are being enrolled in two cohorts (30 per cohort). The study is being conducted in the United States at up to 10 sites and will be focused on participants with CKD. Cohort I of the study is focused on non-diabetic, hypertensive African Americans with Stage II or III CKD. African Americans are at greater risk for CKD than Caucasians, and those who have the APOL1 gene mutation are at an even higher risk. The study is designed to capture the APOL1 gene mutation as an exploratory biomarker in this cohort. Cohort II of the study is focused on participants with IgA Nephropathy (IgAN). The study will evaluate two dose levels of DM199 within each cohort. Study participants will receive DM199 by subcutaneous injection twice weekly for 95 days. The primary study endpoints include safety, tolerability, blood pressure, proteinuria and kidney function, which will be evaluated by changes from baseline in eGFR and albuminuria, as measured by the UACR.

In October 2019, we completed enrollment in the REMEDY trial, the Company's Phase II study assessing the safety, tolerability and markers of therapeutic efficacy of DM199 in participants suffering from AIS. Final enrollment was 92 participants. The markers of therapeutic efficacy will include multiple plasma-based biomarkers (e.g. C-reactive protein), the Modified Rankin Scale, National Institute of Health Stroke Scale and the Barthel Index. These markers are assessed at multiple points throughout the study, including 90 days post-stroke.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

As a company with less than \$1.07 billion of revenue during our last fiscal year, we are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act), and we may remain an emerging growth company for up to five years from December 31, 2018. However, if certain events occur prior to the end of such five-year period, including if we become a large accelerated filer, our annual gross revenue exceeds \$1.07 billion, or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not emerging growth companies. In particular, we are required to provide only two years of audited financial statements and are not required to disclose all of the executive compensation related information that would be required if we were not an emerging growth company. Accordingly, the information contained in our SEC reports may be different than the information you receive from other public companies in which you hold equity interests. However, we have irrevocably elected not to avail ourselves of the extended transition period for complying with new or revised accounting standards, and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We are also a "smaller reporting company" as defined in the United States Securities Exchange Act of 1934, as amended (Exchange Act). We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies until the fiscal year following the determination that our voting and non-voting common shares held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues are more than \$100 million during the most recently completed fiscal year and our voting and non-voting common shares held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter.

Corporate Information

Our principal executive offices are located at 2 Carlson Parkway, Suite 260, Minneapolis, Minnesota 55447. Our telephone number is (763) 312-6755, and our Internet website address is www.diamedica.com. We make available on our website free of charge a link to our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports as soon as practicable after we electronically file such material with the SEC. Except for the documents specifically incorporated by reference into this prospectus, information contained on our website or that can be accessed through our website does not constitute a part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

We are a corporation governed under the British Columbia Business Corporations Act. Our company was initially incorporated under the name Diabex Inc. pursuant to *The Corporations Act* (Manitoba) by articles of incorporation dated January 21, 2000. Our articles were amended (i) on February 26, 2001 to change our corporate name to DiaMedica Inc., (ii) on April 11, 2016 to continue the Company from *The Corporations Act* (Manitoba) to the CBCA, (iii) on December 28, 2016 to change our corporate name to DiaMedica Therapeutics Inc., (iv) on September 24, 2018 to permit us to hold shareholder meetings in the U.S. and to permit our directors, between annual general meetings of our shareholders, to appoint one or more additional directors to serve until the next annual general meeting of shareholders; provided, however, that the number of additional directors shall not at any time exceed one-third of the number of directors who held office at the expiration of the last meeting of shareholders, (v) on November 15, 2018 to effect a 1-for-20 consolidation of our common shares, and (vi) on May 31, 2019, to continue our existence from a corporation incorporated under the Canada Business Corporations Act into British Columbia under British Columbia's Business Corporations Act.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the risks described in our filings with the SEC referred to under the heading "*Where You Can Find More Information*," including the risk factors incorporated by reference herein from our most recent annual report on Form 10-K and quarterly reports on Form 10-Q and from other reports and documents we file with the SEC after the date of this prospectus that are incorporated by reference herein, together with all of the other information included in this prospectus, the applicable prospectus supplement and the documents we incorporate by reference.

If any of these risks were to occur, our business, financial condition, results of operations or cash flows could be adversely affected. You could lose all or part of your investment. When we offer and sell any securities pursuant to a prospectus supplement, we may include additional risk factors relevant to that offering in the prospectus supplement.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Statements in this prospectus and the related prospectus supplement that are not descriptions of historical facts are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 that are based on management's current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition and share price. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should," "will," "would," the negative of these terms or other comparable terminology, and the use of future dates.

The forward-looking statements in or incorporated by reference into this prospectus or the related prospectus supplement may include, among other things, statements about:

- our plans to develop, obtain regulatory approval for and commercialize our DM199 product candidate for the treatment of CKD and AIS and our expectations regarding the benefits of our DM199 product candidate;
- our ability to conduct successful clinical testing of our DM199 product candidate for CKD and AIS;
- our ability to obtain required regulatory approvals of our DM199 product candidate for CKD and AIS;
- the perceived benefits of our DM199 product candidate over existing treatment options for CKD and AIS;
- the potential size of the markets for our DM199 product candidate and our ability to serve those markets;
- the rate and degree of market acceptance, both in the United States and internationally, of our DM199 product candidate for CKD and AIS;
- our ability to partner with and generate revenue from biopharmaceutical or pharmaceutical partners to develop, obtain regulatory approval for and commercialize our DM199 product candidate for CKD and AIS, and any adverse ramifications as a result of our termination of a license and collaboration agreement with Ahon Pharmaceutical Co., Ltd.;
- the success, cost and timing of planned clinical trials, as well as our reliance on collaboration with third parties to conduct our clinical trials;
- our commercialization, marketing and manufacturing capabilities and strategy;

- expectations regarding federal, state, and foreign regulatory requirements and developments, such as potential United States Food and Drug Administration (FDA) regulation of our DM199 product candidate for CKD and AIS;
- expectations regarding competition and our ability to obtain data exclusivity for our DM199 product candidate for CKD and AIS;
- our ability to obtain funding for our operations, including funding necessary to complete planned clinical trials and obtain regulatory approvals for our DM199 product candidate for CKD and AIS;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our DM199 product candidate; and
- our anticipated use of the net proceeds from our December 2018 initial public offering in the United States and any offering under this prospectus and the related prospectus supplement to be filed in connection with such offering.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described under ‘*Risk Factors*’ in this prospectus and related prospectus supplement. Moreover, we operate in a very competitive and rapidly-changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Except as required by law, including the securities laws of the United States, we do not intend to update any forward-looking statements to conform these statements to actual results or to changes in our expectations.

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we intend to use the net proceeds from the sale of securities and any exercise of warrants under this prospectus and related prospectus supplement to continue our clinical and product development activities and for other working capital and general corporate purposes. The prospectus supplement relating to a particular offering of securities by us will identify the use of proceeds for that offering. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the proceeds. Pending the uses described above, we intend to deposit the proceeds in our non-interest bearing checking account, U.S. Treasury money market fund or invest them temporarily in short-term or marketable securities until we use them for their stated purpose.

DILUTION

We will set forth in a prospectus supplement the following information regarding any material dilution of the equity interests of investors purchasing securities in an offering under this prospectus:

- the net tangible book value per share of our equity securities before and after the offering;
- the amount of the increase in such net tangible book value per share attributable to the cash payments made by purchasers in the offering; and
- the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

DESCRIPTION OF OUR COMMON SHARES

General

The following is a summary of the material terms of our common shares, as well as other material terms of our Notice of Articles and Articles and certain provisions of the British Columbia Business Corporations Act (BCBCA). References in this prospectus to “voting common shares” or “common shares” mean our voting common shares, no par value. This summary does not purport to be complete and is qualified in its entirety by the provisions of our Notice of Articles and Articles, which are included as exhibits to the registration statement of which this prospectus forms a part. For more information on how you can obtain our Notice of Articles and Articles, see the heading “Where You Can Find Additional Information.”

Authorized Share Capital

We have an authorized share capital consisting of an unlimited number of common shares, no par value per share.

Outstanding Common Shares

As of December 31, 2019, there were 12,006,874 common shares issued and outstanding. As of December 31, 2019, the following additional common shares were reserved for issuance:

- 766,953 common shares were reserved for issuance upon exercise of outstanding warrants, with a weighted average exercise price of \$6.65 per share;
- 605,181 common shares were reserved for issuance upon exercise of outstanding stock options under the DiaMedica Therapeutics Inc. Stock Option Plan, with a weighted average exercise price of \$6.09 per share;
- 21,183 common shares were reserved for issuance upon the settlement of deferred share units outstanding under the DiaMedica Therapeutics Inc. Deferred Share Unit Plan;
- 615,178 common shares were reserved for issuance upon exercise of outstanding stock options under the DiaMedica Therapeutics Inc. 2019 Omnibus Incentive Plan, with a weighted average exercise price of \$4.55 per share; and
- 1,384,822 common shares were reserved for future issuance in connection with future grants under the DiaMedica Therapeutics Inc. 2019 Omnibus Incentive Plan.

Certain Rights of the Common Shares

Dividends

Holders of our common shares are entitled to share pro rata in such dividends as may be declared by our Board of Directors. Pursuant to the provisions of the BCBCA, we may not declare or pay a dividend if there are reasonable grounds for believing that we are, or would after the payment be, unable to pay our liabilities as they become due in the ordinary course of business. We may pay a dividend by issuing fully paid shares, bonds, debentures or other of our securities or in property (including money).

Liquidation, Dissolution or Winding-Up

In the event of a voluntary or involuntary liquidation, dissolution or winding up of the Company or any other distribution of our assets among our shareholders for the purpose of winding-up our affairs, holders of common shares are entitled to share pro rata in our assets available for distribution after we pay our creditors.

Voting Rights and Shareholders' Meetings

Holders of our common shares are entitled to receive notice of and to attend and vote at all meetings of our shareholders. Each holder of our common shares is entitled to one vote, either in person or by proxy, on all matters submitted to shareholders.

Our Board of Directors must call an annual general meeting of shareholders to be held not later than 15 months after the last preceding annual general meeting of shareholders but no later than six months after the end of our preceding financial year end and may, at any time, call a special meeting of shareholders. Under our articles, a meeting of our shareholders may be held anywhere in or outside of British Columbia, as determined by the Board of Directors. For purposes of determining the shareholders who are entitled to receive notice of or to vote at a meeting of shareholders, the Board of Directors may, in accordance with National Instrument 54-101 - *Communications with Beneficial Owners of Securities of a Reporting Issuer* of the Canadian Securities Administrators, fix in advance a date as the record date for that determination of shareholders, but that record date may not be more than 60 days or less than 30 days before the date on which the meeting is to be held.

Our Articles provide that notice of the time and place of a meeting of shareholders must be sent to each shareholder entitled to vote at the meeting, each director and to our auditors, not more than 50 days and not less than 21 days prior to the meeting. Under our Articles, the presence at a shareholder meeting, in person or represented by proxy, of any number of shareholders holding not less than 33 1/3 of the issued common shares shall constitute a quorum for the purpose of transacting business at the shareholder meeting. A shareholder may participate in a meeting by means of telephone or other communication medium that permits all persons participating in the meeting to communicate with each other during the meeting.

In the case of joint shareholders, one of the holders present at a meeting, either personally or by proxy, may, in the absence of the other holder(s) of the shares, vote the shares. If two or more joint shareholders are present, personally or by proxy, then only the vote of the joint shareholder present whose name stands first on the central securities register in respect of the share will be counted.

No Preemption Rights; Limited Restrictions on Directors' Authority to Issue Common Shares

Existing holders of our common shares have no rights of preemption or first refusal under our Articles or the BCBCA with respect to future issuances of our common shares. The common shares do not have conversion rights, are not subject to redemption and do not have the benefit of any sinking fund provisions. Subject to the rules and policies of The Nasdaq Stock Market and applicable corporate and securities laws, our Board of Directors has the authority to issue additional common shares.

Amendments to Articles

The Articles and the BCBCA govern the rights of holders of our common shares.

Subject to the BCBCA, unless an alteration to the Company's Notice of Articles would be required, our directors can authorize the alteration of our Articles to, among other things, create additional classes or series of shares or, if none of the shares of a class or series are allotted or issued, eliminate that class or series of shares.

Subject to the BCBCA, our shareholders can authorize the alteration of our Articles and Notice of Articles to create or vary the rights or restrictions attached to any class of our shares by passing an ordinary resolution at a duly convened meeting of shareholders. An alteration to the Company's Notice of Articles will not be effective until the notice of alteration is filed with the registrar pursuant to the BCBCA. An alteration to the Company's Articles, which is not an alteration to the Company's Notice of Articles, will be effective on the date and time that the resolution is received for deposit at the Company's records office.

Fundamental Changes

Pursuant to the BCBCA, we may not effect any of the following fundamental changes without the consent of the holders of at least two-thirds (2/3) of each class of our outstanding common shares represented in person or by proxy and separately as a class at a duly convened meeting of our shareholders:

- any proposed amalgamation involving our company in respect of which the BCBCA requires that the approval of our shareholders be obtained;
- any proposed plan of arrangement pursuant to the BCBCA involving our company in respect of which the BCBCA or any order issued by an applicable court requires that the approval of our shareholders be obtained;
- any proposed sale, lease or exchange of all or substantially all of our undertaking; and
- any voluntary liquidation of our company.

Election and Removal of Directors

At each annual general meeting of shareholders, our shareholders are required to elect directors to hold office for a term expiring not later than the close of the next annual general meeting of shareholders. Our Board of Directors may fill vacancies among the Board. Our directors may also, between annual general meetings of our shareholders, appoint one or more additional directors to serve until the next annual general meeting of shareholders; provided, however, that the number of additional directors shall not at any time exceed one-third (1/3) of the number of directors who held office at the expiration of the last meeting of shareholders.

Since shareholders do not have cumulative voting rights, holders of more than 50% of our outstanding common shares can elect all of our directors if they choose to do so. In such event, holders of the remaining shares will be unable to elect any director.

Under the BCBCA, a public company must have a minimum of three directors, who are not required to be resident Canadians.

Under the BCBCA, a director may be removed by shareholders by special resolution unless the Articles provide for a lower approval level. The Articles allow shareholders to remove directors by a special resolution if approved by holders of at least two-thirds (2/3) of each class of our outstanding common shares represented in person or by proxy and voting separately as a class at a duly convened meeting of our shareholders.

Registration Rights

We have not granted any rights to have our common shares or other securities registered under the United States Securities Act of 1933, as amended (Securities Act).

Listing

Our common shares are listed and trade in the United States on The Nasdaq Capital Market under the trading symbol "DMAC."

Transfer Agent and Registrar

The transfer agent and registrar for our common shares is Computershare Investor Services.

Limitation of Liability and Indemnification Matters

Our Articles provide that we will indemnify our directors, former directors, his or her heirs and legal personal representatives and other individuals as we may determine against all eligible penalties to which such person is or may be liable to the fullest extent permitted by British Columbia law. We will pay all expenses actually and reasonably incurred by such person, either as such expenses are incurred in advance of the final disposition of an eligible proceeding or after the final disposition of an eligible proceeding. British Columbia law provides that a company must not indemnify its directors if any of the following circumstances apply:

- if the indemnity or payment is made under an earlier agreement to indemnify or pay expenses and, at the time that the agreement to indemnify or pay expenses was made, the company was prohibited from giving the indemnity or paying the expenses by its articles;
- if the indemnity or payment is made otherwise than under an earlier agreement to indemnify or pay expenses and, at the time that the indemnity or payment is made, the company is prohibited from giving the indemnity or paying the expenses by its articles;
- if, in relation to the subject matter of the relevant proceeding, the director did not act honestly and in good faith with a view to the best interests of the company or the associated corporation, as the case may be, with such associated corporation being an affiliate of the company or a partnership, trust, joint venture or other unincorporated entity in which the director served in the capacity as a director or a position equivalent to that thereof, at the request of the company; or
- in the case of the relevant proceeding other than a civil proceeding, if the director did not have reasonable grounds for believing that the director's conduct in respect of which the proceeding was brought was lawful.

Notwithstanding any of the above prohibitions, the company or a director may apply to court for an order that the company must indemnify the director for any liability or expenses incurred by the director or for any other related obligations of the company.

The Articles also permit us to purchase insurance on behalf of any officer, director, employee or other agent of our company, of an affiliated entity, or, at our request, of another entity, for any liability arising out of that person's actions in such capacity. We have entered into indemnification agreements with each of our current directors and executive officers requiring us to indemnify these individuals to the fullest extent permitted under British Columbia law against liability that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified, and have received a written undertaking from each such director and officer as required under British Columbia law.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

Shareholder Rights Plan

We adopted a shareholder rights plan agreement (Rights Plan). The Rights Plan is designed to provide adequate time for the Board of Directors and the shareholders to assess an unsolicited takeover bid for DiaMedica, to provide the Board of Directors with sufficient time to explore and develop alternatives for maximizing shareholder value if a takeover bid is made, and to provide shareholders with an equal opportunity to participate in a takeover bid and receive full and fair value for their common shares. The Rights Plan was renewed at the Company's annual general meeting of shareholders in December 2017 and is set to expire at the close of the Company's annual general meeting of shareholders in 2020.

The rights issued under the Rights Plan will initially attach to and trade with the common shares, and no separate certificates will be issued unless an event triggering these rights occurs. The rights will become exercisable only when a person, including any party related to it, acquires or attempts to acquire 20% or more of the outstanding common shares without complying with the "Permitted Bid" provisions of the Rights Plan or without approval of the Board of Directors. Should such an acquisition occur or be announced, each right would, upon exercise, entitle a rights holder, other than the acquiring person and related persons, to purchase common shares at a 50% discount to the market price at the time.

Under the Rights Plan, a Permitted Bid is a bid made to all holders of the common shares and which is open for acceptance for not less than 60 days. If at the end of 60 days at least 50% of the outstanding common shares, other than those owned by the offeror and certain related parties have been tendered, the offeror may take up and pay for the common shares but must extend the bid for a further 10 days to allow other shareholders to tender.

The issuance of common shares upon the exercise of the rights is subject to receipt of certain regulatory approvals.

Anti-takeover Laws

In Canada, takeover bids are governed by provincial corporate and securities laws and the rules of applicable stock exchanges. The following description of the rules relating to acquisitions of securities and takeover bids to which Canadian corporate and securities laws apply does not purport to be complete and is subject, and qualified in its entirety by reference, to applicable corporate and securities laws, which may vary from province to province.

A party (acquiror) who acquires beneficial ownership of, or control or direction over, more than 10% of the voting or equity securities of any class of a reporting issuer (or securities convertible into voting or equity securities of any class of a reporting issuer) will generally be required to file with applicable provincial regulatory authorities both a news release and a report containing the information prescribed by applicable securities laws. Subject to the below, the acquiror (including any party acting jointly or in concert with the acquiror) will be prohibited from purchasing any additional securities of the class of the target company previously acquired for a period commencing on the occurrence of an event triggering the aforementioned filing requirement and ending on the expiry of one business day following the filing of the report. This filing process and the associated restriction on further purchases also apply in respect of subsequent acquisitions of 2% or more of the securities of the same class (or securities convertible into voting or equity securities of any class of a reporting issuer). The restriction on further purchases does not apply to an acquiror that beneficially owns, or controls or directs, 20% or more of the outstanding securities of that class.

In addition to the foregoing, certain other Canadian legislation may limit a Canadian or non-Canadian entity's ability to acquire control over or a significant interest in us, including the *Competition Act* (Canada) and the *Investment Canada Act* (Canada). Issuers may also approve and adopt shareholder rights plans or other defensive tactics designed to be triggered upon the commencement of an unsolicited bid and make the company a less desirable takeover target.

DESCRIPTION OF WARRANTS

The following summary of the general terms and provisions of the warrants represented by warrant agreements and warrant certificates that we may offer using this prospectus and a prospectus supplement is only a summary and does not purport to be complete. You must look at the applicable forms of warrant agreement and warrant certificate for a full understanding of the specific terms of any warrant. The forms of the warrant agreement and the warrant certificate will be filed or incorporated by reference as exhibits to the registration statement to which this prospectus is a part. See “*Where You Can Find More Information*” for information on how to obtain copies.

A prospectus supplement will describe the specific terms of the warrants offered under that prospectus supplement, including any of the terms in this section that will not apply to those warrants, and any special considerations, including tax considerations, applicable to investing in those warrants.

General

We may issue warrants to purchase common shares alone or together with other securities offered by the applicable prospectus supplement. The warrants may be issued independently or together with any securities and may be attached to or separate from the securities. We may enter into a warrant agreement with a warrant agent. If we elect to do so, the warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any registered holders of warrants or beneficial owners of warrants.

The prospectus supplement relating to any warrants we offer will describe the specific terms relating to the offering. These terms may include some or all of the following:

- the offering price;
- the currencies in which the warrants will be offered;
- the total number of shares that may be purchased if all of the holders exercise the warrants;
- the number of shares that may be purchased if a holder exercises any one warrant and the price at which and currencies in which shares may be purchased upon exercise;
- the date on and after which the holder of the warrants can transfer them separately from the related underlying common shares;
- the date on which the right to exercise the warrants begins and expires;
- the triggering event and the terms upon which the exercise price and the number of underlying common shares that the warrants are exercisable into may be adjusted;
- whether the warrants will be issued in registered or bearer form;
- the identity of any warrant agent with respect to the warrants and the terms of the warrant agency agreement with that warrant agent;
- a discussion of material U.S. federal income tax consequences; and
- any other terms of the warrants.

A holder of warrants may:

- exchange them for new warrants of different denominations;
- present them for registration of transfer, if they are in registered form; and
- exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement.

Until the warrants are exercised, holders of the warrants will not have any of the rights of holders of the underlying common shares.

Exercise of Warrants

Each holder of a warrant is entitled to purchase the number of common shares at the exercise price described in the applicable prospectus supplement. After the close of business on the day when the right to exercise terminates (or a later date if we extend the time for exercise), unexercised warrants will become void.

Holders of warrants may exercise them by:

- delivering to the warrant agent the payment required to purchase the underlying common shares, as stated in the applicable prospectus supplement;
- properly completing and signing the reverse side of their warrant certificate(s), if any, or other exercise documentation; and
- delivering their warrant certificate(s), if any, or other exercise documentation to the warrant agent within the time specified by the applicable prospectus supplement.

If you comply with the procedures described above, your warrants will be considered to have been exercised when the warrant agent receives payment of the exercise price. As soon as practicable after you have completed these procedures, we will issue and deliver to you the common shares that you purchased upon exercise. If you exercise fewer than all of the warrants represented by a warrant certificate, we will issue to you a new warrant certificate for the unexercised amount of warrants.

Amendments and Supplements to Warrant Agreements

We may amend or supplement a warrant agreement or warrant certificates without the consent of the holders of the warrants if the changes are not inconsistent with the provisions of the warrants and do not adversely affect the interests of the holders.

DESCRIPTION OF UNITS

We may, from time to time, issue units comprised of one or more of the other securities described in this prospectus in any combination. A prospectus supplement will describe the specific terms of the units offered under that prospectus supplement, and any special considerations, including tax considerations, applicable to investing in those units. You must look at the applicable prospectus supplement and any applicable unit agreement for a full understanding of the specific terms of any units. The form of unit agreement will be filed or incorporated by reference as an exhibit to the registration statement to which this prospectus is a part. See “*Where You Can Find More Information*” for information on how to obtain copies.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities separately or together:

- through one or more underwriters or dealers in a public offering and sale by them;
- through agents; and/or
- directly to one or more purchasers.

We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may solicit directly offers to purchase the respective securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the respective securities from time to time. We will name in a prospectus supplement any agent involved in the offer or sale of our securities. If we utilize a dealer in the sale of the respective securities being offered by this prospectus, we will sell the respective securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. If we utilize an underwriter in the sale of the respective securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale, and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent may compensate the underwriter in the form of underwriting discounts or commissions. In connection with the offering of securities, we may grant to the underwriters an option to purchase additional securities with an additional underwriting commission, as may be set forth in the accompanying prospectus supplement. If we grant any such option, the terms of such option will be set forth in the prospectus supplement for such securities. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions. No Financial Industry Regulatory Authority (FINRA) member firm may receive compensation in excess of that allowable under FINRA rules, including Rule 5110, in connection with the offering of the securities.

We will provide in the applicable prospectus supplement any compensation we will pay to underwriters, dealers or agents in connection with the offering of the respective securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

Our common shares are currently listed on The Nasdaq Capital Market. The other securities that may be offered under this prospectus and the related prospectus supplement may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The transactions may be discontinued at any time.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the respective securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the parties may sell securities covered by this prospectus and the applicable prospectus supplement, including short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement or a post-effective amendment to this registration statement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

The anticipated date of delivery of offered securities will be set forth in the applicable prospectus supplement relating to each offer.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon for us by Pushor Mitchell LLP, Kelowna, British Columbia, Canada, relating to matters of British Columbia or Canadian law, and Fox Rothschild LLP, New York, New York, relating to matters of New York law. Additional legal matters may be passed upon for us or any underwriters, dealers or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements incorporated into this prospectus by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2018 have been audited by Baker Tilly Virchow Krause, LLP, an independent registered public accounting firm. Their report, which is incorporated herein by reference, expresses an unqualified opinion on the consolidated financial statements. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public through the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about its public reference facilities and their copy charges.

We also file annual audited and interim unaudited financial statements, proxy statements and other information with the Ontario, Manitoba, Québec, Alberta and British Columbia Securities Commissions. Copies of these documents that are filed through the System for Electronic Document Analysis and Retrieval of the Canadian Securities Administrators are available at its website www.sedar.com.

In addition, we maintain a website that contains information regarding our company, including copies of reports, proxy statements and other information we file with the SEC. The address of our website is www.diamedica.com. Except for the documents specifically incorporated by reference into this prospectus, information contained on our website or that can be accessed through our website does not constitute a part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. When used in this prospectus, the term "registration statement" includes amendments to the registration statement as well as the exhibits, schedules, financial statements and notes filed as part of the registration statement. This prospectus, which constitutes a part of the registration statement, does not contain all of the information in the registration statement. This prospectus omits information contained in the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and the common shares and other securities that may be offered by this prospectus, reference is made to the registration statement. Statements herein concerning the contents of any contract or other document are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed with the SEC as an exhibit to the registration statement, each such statement being qualified by and subject to such reference in all respects.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them. This allows us to disclose important information to you by referencing those filed documents. We have previously filed the documents set forth below with the SEC and are incorporating them by reference into this prospectus. Our SEC file no. is 001-36291.

- [Annual Report on Form 10-K for the year ended December 31, 2018 \(including information specifically incorporated by reference into our Form 10-K from our definitive proxy statement for our 2019 General and Special Meeting of Shareholders\);](#)
- [Definitive Proxy Statement for our 2019 General and Special Meeting of Shareholders as filed with the SEC on April 8, 2019;](#)
- [Quarterly Report on Form 10-Q for the quarter ended March 31, 2019;](#)
- [Quarterly Report on Form 10-Q for the quarter ended June 30, 2019;](#)
- [Quarterly Report on Form 10-Q for the quarter ended September 30, 2019;](#)
- Current Reports on Form 8-K (only to the extent information is "filed" and not "furnished") filed with the SEC on [January 3, 2019](#), [January 9, 2019](#), [February 26, 2019](#), [May 23, 2019](#), [June 4, 2019](#), [June 19, 2019](#), [June 21, 2019](#), [August 13, 2019](#), and [October 30, 2019](#); and
- the description of our common shares contained in our [Amendment No. 1 to our registration statement on Form 8-A that we filed with the SEC on June 4, 2019](#) and any amendment or report filed for the purpose of updating this description.

We also are incorporating by reference any future information filed (rather than furnished) by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is a part and before the effective date of the registration statement and after the date of this prospectus until the termination of the offering. The most recent information that we file with the SEC automatically updates and supersedes more dated information.

You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statement, and amendments, if any, to those documents filed or furnished pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act with the SEC free of charge at the SEC's website at www.sec.gov or our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Except for the documents specifically incorporated by reference into this prospectus, information contained on our website or that can be accessed through our website does not constitute a part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

You can obtain a copy of any documents which are incorporated by reference in this prospectus or prospectus supplement, except for exhibits which are not specifically incorporated by reference into those documents, at no cost, by writing or telephoning us at:

DiaMedica Therapeutics Inc.
Two Carlson Parkway, Suite 260
Minneapolis, Minnesota 55447
Attention: Secretary
(763) 312-6755



\$50,000,000

**Common Shares
Warrants
Units**

PROSPECTUS

, 2020

We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in this prospectus. You must not rely on any unauthorized information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not offer to sell any securities in any jurisdiction where it is unlawful. Neither the delivery of this prospectus, nor any sale made hereunder, shall create any implication that the information in this prospectus is correct after the date hereof.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The table below sets forth the estimated costs and expenses in connection with the sale and distribution of the securities being registered hereby, other than underwriting discounts and commissions. All of the amounts shown are estimates, except the Securities and Exchange Commission registration fee. The expenses listed will be paid by DiaMedica.

SEC registration fee	\$	6,490
Legal fees and expenses	\$	*
Accounting fees and expenses	\$	*
Transfer agent fees and expenses	\$	*
FINRA, blue sky fees and expenses	\$	*
Printing expenses	\$	*
Miscellaneous	\$	*
Total	\$	*

* Estimated expenses are not currently known because they depend upon, among other things, the number of offerings that will be made pursuant to this registration statement, the amount and type of securities being offered and the timing of such offerings. The foregoing sets forth the general categories of expenses (other than underwriting discounts and commissions) that we anticipate we will incur in connection with the offering of securities under this registration statement. An estimate of the expenses in connection with the issuance and distribution of the securities being offered will be included in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers

British Columbia Law

Under Section 160 of the British Columbia Business Corporations Act, we may indemnify an eligible party including, but not limited to, a current or former director or officer of us; a current or former director or officer of another corporation: (i) at a time when the corporation is or was an affiliate of ours, or (ii) at our request; or, an individual who, at our request, is or was, or holds or held, a position equivalent to that of a director or officer of a partnership, trust, joint venture or other unincorporated entity against all judgments, penalties or fines awarded or imposed in, or an amount paid in settlement of a proceeding in which an eligible party or any of the heirs and personal or other legal representatives of the eligible party, by reason of such party having been a director or officer of, or holding or having held a position equivalent to that of a director or officer of, the Company or an associated corporation, to which such party is or may be liable. Indemnification will be prohibited if (i) giving indemnity or paying expenses is or was prohibited by the Company's Articles, (ii) if in relation to the subject matter of the eligible proceeding, the eligible party did not act honestly and in good faith with a view to the best interests of the Company or the associated corporation, as the case may be, or (iii) in the case of an eligible proceeding other than a civil proceeding, if the eligible party did not have reasonable grounds for believing that the eligible party's conduct in respect of which the proceeding was brought was lawful. The BCBCA also provides, under Section 162, that we may also advance moneys to an eligible party for expenses actually and reasonably incurred in connection with such a proceeding; however, prior to making any such advance, the Company must receive from the eligible party a written undertaking that if it is ultimately determined that the payment of expenses is prohibited by either conditions (i), (ii) or (iii) above, the eligible party will repay the amounts advanced.

DiaMedica's Notice of Articles and Articles

Our Articles provide that we shall indemnify, and pay expenses either as they are incurred in advance of the final disposition of an eligible proceeding or after the final disposition of an eligible proceeding of, a current or former director, and his or her heirs and legal personal representatives, or any person designated by the company, in accordance with, and to the fullest extent and in all circumstances permitted by, the BCBCA.

We entered into and, in the future, will enter into indemnification agreements with our officers and directors in respect of any legal claims or actions initiated against them in their capacity as officers and directors of us or our subsidiaries in accordance with applicable law. These agreements include bearing the reasonable cost of legal representation in any legal or regulatory action in which they may become involved in their capacity as our officers and directors. Pursuant to such indemnities, we bear the cost of the representation of certain officers and directors.

We maintain insurance for certain liabilities incurred by our directors and officers in their capacity with us or our subsidiaries.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

Item 16. Exhibits

<u>Exhibit No.</u>	<u>Exhibit</u>
1.1*	Form of Underwriting Agreement
1.2*	Form of Placement Agent Agreement
3.1	Notice of Articles of DiaMedica Therapeutics Inc. dated May 31, 2019 (incorporated by reference to Exhibit 3.1 to DiaMedica's Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 4, 2019 (File No. 001-36291))
3.2	Articles of DiaMedica Therapeutics Inc. dated May 31, 2019 (incorporated by reference to Exhibit 3.2 to DiaMedica's Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 4, 2019 (File No. 001-36291))
4.1	Specimen Certificate representing Voting Common Shares of DiaMedica Therapeutics Inc. (incorporated by reference to Exhibit 4.2 to DiaMedica's Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 4, 2019 (File No. 001-36291))
4.2	Shareholder Rights Plan Agreement dated December 21, 2017 by and between DiaMedica Therapeutics Inc. and Computershare Investor Services Inc. (incorporated by reference to Exhibit 4.2 to DiaMedica's Registration Statement on Form S-1 as filed with the Securities and Exchange Commission on November 9, 2018 (File No. 333-228313))
4.3	Investment Agreement between Hermeda Industrial Co., Ltd. and DiaMedica Inc. dated July 16, 2017 (incorporated by reference to Exhibit 4.1 to DiaMedica's Registration Statement on Form S-1 as filed with the Securities and Exchange Commission on November 9, 2018 (File No. 333-228313))
4.4	Form of Investor Warrant issued in connection with the March 2018 private placement (incorporated by reference to Exhibit 4.9 to DiaMedica's Registration Statement on Form S-1 as filed with the Securities and Exchange Commission on November 9, 2018 (File No. 333-228313))
4.5	Form of Broker Warrant issued in connection with the March 2018 private placement (incorporated by reference to Exhibit 4.10 to DiaMedica's Registration Statement on Form S-1 as filed with the Securities and Exchange Commission on November 9, 2018 (File No. 333-228313))
4.6	Form of Investor Warrant issued in connection with the December 2017 private placement (incorporated by reference to Exhibit 4.11 to DiaMedica's Registration Statement on Form S-1 as filed with the Securities and Exchange Commission on November 9, 2018 (File No. 333-228313))
4.7*	Form of Warrant Agreement, including Form of Warrant
4.8*	Form of Warrant Certificate
4.9*	Form of Underwriter's Warrant
4.10*	Form of Placement Agent's Warrant
5.1	Opinion of Pushor Mitchell LLP
5.2	Opinion of Fox Rothschild LLP
23.1	Consent of Baker Tilly Virchow Krause, LLP
23.2	Consent of Pushor Mitchell LLP (included in Exhibit 5.1)
23.3	Consent of Fox Rothschild LLP (included in Exhibit 5.2)
24.1	Power of Attorney (included on signature page to the Registration Statement)

* If applicable, to be filed by amendment or as an exhibit to a document to be incorporated or deemed to be incorporated by reference in this registration statement, including a Current Report on Form 8-K.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) That, for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(e) That, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Minneapolis, State of Minnesota, on January 2, 2020.

DIAMEDICA THERAPEUTICS INC.

By: /s/ Rick Pauls
Rick Pauls
President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned directors and officers of DiaMedica Therapeutics Inc., hereby severally constitute and appoint Rick Pauls and Scott Kellen, and each of them, our true and lawful attorneys-in-fact and agents, each acting alone, with the powers of substitution and revocation, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments or any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933) to this Registration Statement on Form S-3, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming that all such attorneys-in-fact and agents or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement and power of attorney have been signed by the following persons in the capacities and on the dates indicated:

<u>Name and Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Rick Pauls</u> Rick Pauls	President, Chief Executive Officer and Director (principal executive officer)	January 2, 2020
<u>/s/ Scott Kellen</u> Scott Kellen	Chief Financial Officer and Secretary (principal financial and accounting officer)	January 2, 2020
<u>/s/ Richard Pilnik</u> Richard Pilnik	Chairman of the Board	January 2, 2020
<u>/s/ Michael Giuffre, M.D.</u> Michael Giuffre, M.D.	Director	January 2, 2020
<u>/s/ James Parsons</u> James Parsons	Director	January 2, 2020
<u>/s/ Zhenyu Xiao, Ph.D.</u> Zhenyu Xiao, Ph.D.	Director	January 2, 2020



January 2, 2020

DiaMedica Therapeutics Inc.
Suite 260, Two Carlson Parkway
Minneapolis, Minnesota 55447

Dear Sirs/Mesdames:

RE: DiaMedica Therapeutics Inc. – Registration Statement on Form S-3

We have acted as special Canadian counsel for DiaMedica Therapeutics Inc. (the “**Company**”), a corporation existing under the laws of the Province of British Columbia (the “**Province**”), in connection with its preparation and filing with the United States Securities and Exchange Commission (the “**SEC**”) of a Registration Statement on Form S-3, dated the date hereof (the “**Registration Statement**”) under the United States Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement relates to the proposed offer, issuance and sale by the Company, from time to time as set forth in the Registration Statement, the prospectus contained therein (the “**Prospectus**”) and the supplements referred to therein (the “**Prospectus Supplements**”), of up to an aggregate offering price of US\$25,000,000 of (a) common shares of the Company (the “**Common Shares**”), (b) warrants of the Company (the “**Warrants**”) to purchase Common Shares of the Company and (c) units of the Company (the “**Units**”) consisting of any combination of Common Shares and Warrants (the Common Shares, Warrants and Units are collectively referred to herein as the “**Securities**”).

We have examined copies of the Company’s Notice of Articles, Articles and such other corporate records of the Company and we have considered such questions of law and examined such statutes, regulations and orders, certificates and other documents as we consider necessary and relevant as the basis for the opinions set forth herein. With respect to the accuracy of factual matters material to our opinions hereinafter expressed, we have relied upon certificates or comparable documents and representations of public officials and of officers and representatives of the Company.

We are solicitors qualified to practice law in the Province. This opinion is rendered solely with respect to the laws of the Province and the federal laws of Canada applicable therein, in each case as they exist on the date of this opinion letter. We express no opinion as to any laws or matters governed by any laws other than the laws of the Province and the federal laws of Canada applicable therein.

For purposes of rendering the opinions expressed herein, we have assumed:

- (a) the genuineness of all signatures on documents, agreements and certificates;
 - (b) the authenticity and completeness of all original documents examined by us and the conformity to authentic original documents of all certified copies, photocopies and facsimiles examined by us;
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- (c) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed;
- (d) the minute books of the Company provided to us contain all constating documents of the Company and are a complete record of the minutes and resolutions of the directors and shareholders of the Company;
- (e) that the Company is, and at all relevant times has been, in compliance with applicable laws;
- (f) at the time of any offer and sale of the Securities, the Company will validly exist and be duly qualified and in good standing under the *Business Corporations Act* (British Columbia);
- (g) at the time of offer and sale of any Securities, the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective under the Securities Act and no stop order suspending its effectiveness will have been issued and remain in effect;
- (h) a Prospectus and any and all Prospectus Supplements will have been prepared and filed with the SEC describing the Securities offered thereby;
- (i) all Securities will be issued and sold from time to time: (i) in compliance with applicable laws; including applicable provincial, Federal and state securities laws; (ii) in the manner stated in the Registration Statement and any required post-effective amendment thereto and the Prospectus and any applicable Prospectus Supplement; and (iii) in a manner that does not violate any government or court-imposed order or restriction or agreement or instrument then binding on the Company or otherwise impair the legal or binding nature of the obligations represented by the applicable Securities;
- (j) the Securities will be delivered against payment for valid consideration therefor, and in compliance with the terms of the applicable corporate action authorizing such sale and any applicable purchase agreement, underwriting agreement, placement agency agreement or similar agreement and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement;
- (k) a definitive purchase agreement, underwriting agreement, placement agency agreement or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto;
- (l) the Warrants and any agreements executed and delivered by the Company with respect to the Warrants, including any certificates representing the Warrants (collectively, the “**Warrant Documents**”), will be governed by and interpreted in accordance with the laws of the Province and the laws of Canada applicable therein;
- (m) the Units and any agreements executed and delivered by the Company with respect to the Units, including any certificates representing the Units (collectively, the “**Unit Documents**”), will be governed by and interpreted in accordance with the laws of the Province and the laws of Canada applicable therein;

- (n) insofar as any obligation under any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, is to be performed in any jurisdiction outside of the Province, its performance will not be illegal or unenforceable by virtue of the laws of that other jurisdiction;
- (o) any Securities issuable upon conversion, exchange, redemption, or exercise of any Securities being offered will be duly authorized, created and, if appropriate, allotted and reserved for issuance upon such conversion, exchange, redemption or exercise;
- (p) with respect to the Common Shares offered by the Company, there will be sufficient Common Shares authorized under the Company's organizational documents and not otherwise reserved for issuance at the time of any offer and sale of such Common Shares; and
- (q) to the extent that the obligations of the Company with respect to the Securities may be dependent upon such matters, we assume for purposes of this opinion that each other party under the Warrant Documents for any Warrants or any Unit Document for any Units, namely, the warrant agent or unit agent, is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization; that such other party is duly qualified to engage in the activities contemplated by such Warrant Document or Unit Document; that such Warrant Document or Unit Document has been duly authorized, executed and delivered by the other party and constitutes the legal, valid and binding obligation of the other party enforceable against the other party in accordance with its terms; that such other party is in compliance with respect to performance of its obligations under such Warrant Document or Unit Document with all applicable laws and regulations; and that such other party has the requisite organizational and legal power and authority to perform its obligations under such Warrant Document or Unit Document.

We have made no independent investigation of the foregoing assumptions.

We express no opinion with respect to any filings, proceedings, permits, consents, orders or authorizations which may be required in connection with the issuance of any Securities.

In giving the opinion expressed in paragraph 1 below, as to the existence of the Company, we have relied solely on a certificate of good standing dated December 30, 2019 with respect to the Company, electronically retrieved from the official records of the British Columbia Registrar of Companies.

Based upon and subject to the assumptions and qualifications herein expressed, we are of the opinion that:

1. The Company was continued as a company under the laws of the Province, is a valid and existing company and is, with respect to filing of annual reports, in good standing.

2. With respect to the Common Shares, when (a) the Board of Directors of the Company or a duly constituted and acting committee thereof (such Board of Directors or committee being hereinafter referred to as the “**Board**”) has taken all necessary corporate action to approve the issuance of and the terms of the offering of such Common Shares and all matters related thereto and (b) the Common Shares have been delivered either (i) in accordance with the applicable definitive purchase, underwriting, placement agency or similar agreement approved by the Board, or upon the exercise of Warrants to purchase Common Shares, upon full payment of the consideration therefor provided for therein, or (ii) upon conversion or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion or exercise as approved by the Board, for the full consideration approved by the Board, then such Common Shares will be validly issued, fully paid and non-assessable shares in the capital of the Company.
3. With respect to the Warrants, when (a) the Board has taken all necessary corporate action to approve the issuance of and the terms of the Warrants and all matters related thereto and (b) the Warrants have been duly executed and delivered against full payment therefor, pursuant to the applicable definitive purchase, underwriting, warrant, placement agency or similar agreement duly authorized, executed and delivered by the Company and a warrant agent and the certificates for the Warrants have been duly executed and delivered by the Company and such warrant agent, then the Warrants will be validly issued and will constitute valid and binding obligations of the Company under the laws of the Province, enforceable against the Company in accordance with their terms.
4. With respect to the Units, when (a) the Board has taken all necessary corporate action to approve the issuance of and the terms of the Units (including Securities underlying the Units) and all matters related thereto and (b) the Units (including Securities underlying the Units) have been duly executed and delivered against payment therefor, pursuant to the applicable definitive purchase, underwriting, unit, placement agency or similar agreement duly authorized, executed and delivered by the Company and the certificates for the Units have been duly executed and delivered in accordance with such purchase, underwriting, unit, placement agency or similar agreement, then the Units (including Securities underlying the Units) will be validly issued and will constitute valid and binding obligations of the Company under the laws of the Province, enforceable against the Company in accordance with their terms.

The opinions expressed above are subject to the following qualifications:

- (a) the enforceability of the Warrants and the Units is subject to bankruptcy, insolvency, reorganization, arrangement, winding-up, moratorium and other laws of general application limiting the enforcement of creditors’ rights generally;
- (b) the enforceability of any provision in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, that purports to sever from such Warrants or Units, as the case may be, any provision that is prohibited or unenforceable under applicable law without affecting the enforceability of the remainder of such Warrants or Units, as the case may be, would be determined only in the discretion of a court;

- (c) the recoverability of costs and expenses may be limited to those a court considers to be reasonably incurred and the costs and expenses incidental to all court proceedings are in the discretion of the court, and the court has the power to determine by whom and to what extent these costs shall be paid;
- (d) the enforceability of any rights of indemnity or contribution in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, may be limited by applicable law to the extent that such rights directly or indirectly relate to liabilities imposed by law for which it would be contrary to public policy to require a person to provide indemnification or contribution;
- (e) the enforceability of the Warrants and the Units is subject to the provisions of the *Limitations Act* (British Columbia);
- (f) courts in Canada are precluded from giving a judgment in any currency other than the lawful money of Canada;
- (g) we express no opinion as to:
 - (i) the enforceability of any provision in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, to the extent it purports to exculpate a person from a liability or duty otherwise owed by it, waives rights or defenses or agrees not to challenge the validity or enforceability of remedies;
 - (ii) the enforceability of any provision in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, that states that amendments or waivers of or with respect to the Warrants or the Units, as the case may be, that are not in writing will not be effective;
 - (iii) the enforceability of any provision in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, to the extent it purports to exculpate any person from liability in respect of acts or omissions that may be illegal, fraudulent or involve willful misconduct; and
 - (iv) the enforceability of any provision in any of the Warrant Documents or Unit Documents applicable to the Warrants or the Units, respectively, purporting to confer any benefits thereunder on any third party;
- (h) we express no opinion as to compliance with the *Personal Information Protection and Electronic Documents Act* (Canada) or the *Personal Information Protection Act* (British Columbia);
- (i) a court may decline to accept the factual and legal determinations of a party notwithstanding that a contract or instrument provides that the determinations of that party shall be conclusive; and

- (j) the term “non-assessable” as used in this opinion means that a holder of a Common Share will not by reason of merely being such a holder, be subject to assessment or calls by the Company or its creditors. No opinion is expressed as to actual receipt by the Company of the consideration for the issuance of such securities or as to the adequacy of any consideration received.

We hereby expressly consent to the filing of this opinion as an exhibit to the Registration Statement and the use of our firm name wherever it appears in the Registration Statement, the Prospectus, any Prospectus Supplement, and in any amendment or supplement thereto. In giving this consent, we do not admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations promulgated thereunder.

This opinion is limited to the matters stated herein, and no opinion or belief is implied or may be inferred beyond the matters expressly stated herein. This opinion is effective as at the date hereof and is based upon laws in effect and facts in existence as at the date hereof. We express no opinion as to the effect of future laws or judicial decisions on the subject matter hereof, nor do we undertake any duty to modify this opinion to reflect subsequent facts or developments concerning the Company or developments in the law occurring after the date hereof.

Yours truly,

“*Pushor Mitchell LLP*” (signed)



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Suite 2000
Minneapolis, MN 55402-3338
Tel (612) 607-7000 Fax (612) 607-7100
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January 2, 2020

DiaMedica Therapeutics Inc.
Two Carlson Parkway, Suite 260
Minneapolis, MN 55447

Re: DiaMedica Therapeutics Inc. Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as legal counsel to DiaMedica Therapeutics Inc., a corporation existing under the laws of the Province of British Columbia (the **Company**), in connection with the filing by the Company under the United States Securities Act of 1933, as amended (the **Securities Act**), of a registration statement on Form S-3, dated the date hereof (the **Registration Statement**), with the United States Securities and Exchange Commission (the **SEC**). The Company has provided us with a prospectus (the **Prospectus**), which forms part of the Registration Statement. The Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each, a **Prospectus Supplement**). The Registration Statement, including the Prospectus as supplemented from time to time by one or more Prospectus Supplements, relates to the issuance, offer and sale by the Company, from time to time, of up to an aggregate offering price of \$25,000,000 of:

- a) common shares of the Company, no par value per share (the **Common Shares**);
 - b) warrants to purchase Common Shares (the **Warrants**), such Warrants to be issued under a separate warrant agreement (**Warrant Agreement**); and/or
 - c) units of the Company consisting of any combination of Common Shares and Warrants (the **Units**), such Units to be issued under a separate unit agreement (**Unit Agreement**).
-

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The Common Shares, Warrants and Units that may be registered pursuant to any subsequent registration statement that the Company may hereafter file with the SEC pursuant to Rule 462(b) under the Securities Act in connection with the offering by the Company contemplated by the Registration Statement are referred to herein collectively as the “**Securities**,” and each a “**Security**.”

The Registration Statement provides that the Securities may be offered in amounts, at prices and on terms to be set forth in one or more Prospectus Supplements to the Prospectus contained in the Registration Statement.

For purposes of this opinion letter, we have examined copies of the following documents (the “**Documents**”):

- a) the Registration Statement and Prospectus;
- b) a copy of the opinion furnished by Pushor Mitchell LLP, the Company’s legal counsel in Canada; and
- c) such other documents and matters of law as we have deemed necessary or appropriate for the purpose of rendering this opinion.

In acting as counsel for the Company and arriving at the opinions expressed below, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of the Documents and such other records of the Company, agreements and other instruments, certificates of officers and representatives of the Company, certificates of public officials and other documents as we have deemed necessary or appropriate as a basis for the opinions expressed herein. In connection with our examination, we have assumed the genuineness of all signatures, the authenticity of all documents tendered to us as originals, the legal capacity of all natural persons and the conformity to original documents of all documents submitted to us as certified or photostatic copies.

For purposes of this opinion letter, we have assumed that (i) the issuance, sale, amount and terms of the Securities, to be offered from time to time, will be duly authorized and established by proper action of the Board of Directors of the Company or a duly authorized committee of the Board of Directors consistent with the procedures and terms described in the Registration Statement and in accordance with the applicable laws of British Columbia in a manner that does not violate any law, government or court-imposed order or restriction or agreement or instrument then binding on the Company or otherwise impair the legal or binding nature of the obligations represented by the applicable Securities; (ii) at the time of offer and sale of any Securities, the Registration Statement will have become effective under the Securities Act, and no stop order suspending its effectiveness will have been issued and remain in effect; (iii) a Prospectus and any and all Prospectus Supplements will have been prepared and filed with the SEC describing the Securities offered thereby; (iv) all Securities will be issued and sold in compliance with applicable laws and in the manner stated in the Registration Statement and any required post-effective amendment thereto and the Prospectus and any applicable Prospectus Supplement; (v) any Warrants will be issued under one or more Warrant Agreements, which will state that the State of New York law governs; (vi) any Units will be issued under one or more Unit Agreements, which will state that the State of New York law governs; and (vii) the Securities will be delivered against payment of valid consideration therefor, and in accordance with the terms of the applicable corporate action authorizing such sale and any applicable underwriting agreement, purchase agreement or similar agreement and as contemplated by the Registration Statement and/or the applicable Prospectus Supplement.

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To the extent that the obligations of the Company with respect to the Securities may be dependent upon such matters, we assume for purposes of this opinion that the other party under the Warrant Agreement for any Warrants or any Unit Agreement for any Units, namely, the warrant agent or unit agent, is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization; that such other party is duly qualified to engage in the activities contemplated by such Warrant Agreement or Unit Agreement; that such Warrant Agreement or Unit Agreement has been duly authorized, executed and delivered by the other party and constitutes the legal, valid and binding obligation of the other party enforceable against the other party in accordance with its terms; that such other party is in compliance with respect to performance of its obligations under such Warrant Agreement or Unit Agreement with all applicable laws and regulations; and that such other party has the requisite organizational and legal power and authority to perform its obligations under such Warrant Agreement or Unit Agreement.

Based on the foregoing, and subject to the qualifications and limitations stated herein, it is our opinion that:

1. When the applicable Warrant Agreement has been duly authorized by all necessary corporate action of the Company and duly executed and delivered by the Company, and when the specific terms of a particular issuance of Warrants have been duly established in accordance with the terms of the applicable Warrant Agreement and authorized by all necessary corporate action of the Company, and such Warrants have been duly executed, authenticated, issued and delivered against payment therefor in accordance with the terms of the applicable Warrant Agreement and in the manner contemplated by the applicable Prospectus and by such corporate action (assuming the securities issuable upon exercise of such Warrants have been duly authorized and reserved for issuance by all necessary corporate action), such Warrants will be legally valid and binding obligations of the Company under the laws of the State of New York, enforceable against the Company in accordance with their terms.
-

January 2, 2020

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2. When the applicable Unit Agreement has been duly authorized by all necessary corporate action of the Company and duly executed and delivered by the Company, and when the specific terms of a particular issuance of Units have been duly established in accordance with the terms of the applicable Unit Agreement and authorized by all necessary corporate action of the Company, and such Units have been duly executed, authenticated, issued and delivered against payment therefor in accordance with the terms of the applicable Unit Agreement and in the manner contemplated by the applicable Prospectus and by such corporate action (assuming the securities issuable upon exercise of such Units have been duly authorized and reserved for issuance by all necessary corporate action), such Units will be legally valid and binding obligations of the Company under the laws of the State of New York, enforceable against the Company in accordance with their terms.

In addition to the qualifications, exceptions and limitations elsewhere set forth in this opinion letter, our opinion that any document is legal, valid and binding is qualified as to and we give no opinion with respect to: (i) limitations imposed by bankruptcy, insolvency, reorganization, arrangement, receivership, moratorium or other laws affecting creditors' rights (including, without limitation, the effect of statutory and other laws regarding fraudulent conveyances, fraudulent transfers and preferential transfers); (ii) right to indemnification and contribution, which may be limited by applicable law or equitable principles; (iii) general principles of equity, including, without limitation, concepts of materiality, reasonableness, conscionability, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief, regardless of whether the applicable agreements are considered in a proceeding in equity or at law; and (iv) any provisions relating to the choice of forums for resolving disputes.

This opinion is limited to the internal laws of the State of New York, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction. We express no opinion as to the laws of Canada or the Province of British Columbia. We express no opinion as to the applicable choice of law rules that may affect the interpretation or enforcement of the Common Shares, Warrants or Units. We further disclaim any opinion as to any statute, rule, regulation, ordinance, order or other promulgation of any regional or local governmental body or as to any related judicial or administrative opinion. For the purposes of our opinion, we have assumed that the Company has been duly incorporated and is a company with limited liability organized under the laws of the Province of British Columbia. With respect to all matters of Canadian law, we note that you are being provided with the opinion, dated the date hereof, of Pushor Mitchell LLP, Canadian legal advisor to the Company.

January 2, 2020

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We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the use of our name wherever it appears in the Registration Statement, the Prospectus, the Prospectus Supplement, and in any amendment or supplement thereto. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the SEC.

This opinion is expressed as of the date hereof and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable law.

Very truly yours,

/s/ Fox Rothschild LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Registration Statement on Form S-3 of DiaMedica Therapeutics Inc. of our report dated March 19, 2019, relating to the consolidated financial statements appearing in the Annual Report on Form 10-K for the years ended December 31, 2018 and 2017, and to the reference to our Firm under the caption "Experts".

/s/ BAKER TILLY VIRCHOW KRAUSE, LLP

Minneapolis, Minnesota
January 2, 2020