UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

DIAMEDICA THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Canada	Not Applicable
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2 Carlson Parkway, Suite 260	
Minneapolis, Minnesota	55447
(Address of Principal Executive Offices)	(Zip Code)
DiaMedica Therapeutics Inc. Stock Option Plan DiaMedica Therapeutics Inc. Amended an (Full title of the	d Restated Deferred Share Unit Plan
·	•
Rick Pa	
President and Chief E	
DiaMedica Thera	
2 Carlson Parkwa Minneapolis, Mini	
(Name and address of a	
(Name and address of a	igent for service)
(763) 496-	5454
(Telephone number, including are	a code, of agent for service)
Copies t	ro:
Amy E. Culbert	Keith Inman
Brett R. Hanson	Pushor Mitchell LLP
Fox Rothschild LLP	301 – 1665 Ellis Street
Campbell Mithun Tower, Suite 2000	Kelowna, British Columbia
222 South Ninth Street	Canada
Minneapolis, Minnesota 55402	V1Y 2B3
(612) 607-7000	(250) 762-2108
Indicate by check mark whether the registrant is a large accelerated filer, company or emerging growth company. See the definitions of "large acc and "emerging growth company" in Rule 12b-2 of the Exchange Act.	
Large accelerated filer \square Non-accelerated filer \square	Accelerated filer □ Smaller reporting company ⊠ Emerging growth company ⊠
If an emerging growth company, indicate by check mark if the registrant complying with any new or revised financial accounting standards provide	

CALCULATION OF REGISTRATION FEE

Title of securities to be registered ⁽¹⁾	Amount to be registered ⁽²⁾	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Voting Common Shares, no par value per share, reserved for issuance pursuant to the Stock Option Plan Amended and Restated November 6, 2018	762,735 shares ⁽³⁾	\$7.18 ⁽⁴⁾	\$5,479,610	\$664.13
Voting Common Shares, no par value per share, reserved for issuance pursuant to the Amended and Restated Deferred Share Unit Plan ⁽⁵⁾	21,183 shares	\$3.63 ⁽⁶⁾	\$76,895	\$9.32
Total	783,918 shares		\$5,556,505	\$673.45

- (1) Each voting common share, no par value per share ("common shares"), 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.
- (2) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional common shares of the registrant that become issuable under the DiaMedica Therapeutics Inc. Stock Option Plan Amended and Restated November 6, 2018 (the "Option Plan") or Amended and Restated Deferred Share Unit Plan (the "DSU Plan") by reason of any recapitalization, share consolidation, share dividend or other similar transaction effected without receipt of consideration where the registrant's outstanding common shares are increased, converted or exchanged.
- (3) Represents the registrant's common shares available for issuance under the Option Plan. Represents 639,359 common shares subject to outstanding options under the Option Plan as of December 12, 2018 and 123,376 common shares available for future issuance under the Option Plan. To the extent outstanding options under the Option Plan are terminated, expire or lapse for any reason without delivery of common shares, such common shares will be available for future issuance under the Option Plan. Shares issuable upon the settlement of deferred share units granted under the DSU Plan reduce the number of shares issuable under the Option Plan.
- (4) Estimated solely for the purpose of calculating the amount of the registration fee and calculated pursuant to Rule 457(h) under the Securities Act as follows: (i) with respect to 639,359 common shares issuable upon the exercise of options previously granted under the Option Plan, on the basis of the weighted average exercise price of \$7.87 per share of such options; and (ii) with respect to the remaining common shares issuable upon the exercise of options to be granted under the Option Plan, on the basis of the average of the high and low sales prices of the registrant's common shares on December 12, 2018, as reported by The Nasdaq Capital Market.
- (5) Represents the registrant's common shares available for issuance upon the settlement of deferred share unit awards previously granted under the DSU Plan.
- (6) Estimated solely for the purpose of calculating the amount of the registration fee and calculated pursuant to Rule 457(c) and Rule 457(h) under the Securities Act on the basis of the average of the high and low sales prices of the registrant's common shares on December 12, 2018, as reported by The Nasdaq Capital Market.

EXPLANATORY NOTE

DiaMedica Therapeutics Inc. (the "Registrant" or the "Company") has filed this Registration Statement on Form S-8 (this "Registration Statement") with the United States Securities and Exchange Commission (the "SEC") under the United States Securities Act of 1933, as amended (the "Securities Act"), to register 762,735 voting common shares, no par value per share, of the Company ("Common Shares"), issuable pursuant to options previously granted and to be granted under the DiaMedica Therapeutics Inc. Stock Option Plan Amended and Restated November 6, 2018 (the "Option Plan") and 21,183 Common Shares issuable pursuant to deferred share unit awards granted under the DiaMedica Therapeutics Inc. Amended and Restated Deferred Share Unit Plan (the "DSU Plan"). Each Common Share includes one common share purchase right pursuant to a Shareholder Rights Plan Agreement dated December 21, 2017 by and between the Company and Computershare Investor Services Inc.

The Option Plan was approved by the Company's Board of Directors on September 30, 2018 and approved and adopted by the Company's shareholders on November 6, 2018. The DSU Plan was approved by the Company's Board of Directors on August 25, 2011 and approved and adopted by the Company's shareholders on September 22, 2011.

PART I INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

Item 1. Plan Information.

The document(s) containing the information specified in Part I of Form S-8 will be sent or given to participants in the Option Plan or the DSU Plan, as applicable, in accordance with Rule 428(b)(1) under the Securities Act. Such documents are not required to be and are not being filed with the SEC either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act, but constitute, along with the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II hereof, a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

The Company will furnish without charge to each person to whom the prospectus is delivered, upon the written or oral request of such person, a copy of any and all of the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II hereof, other than exhibits to such documents (unless such exhibits are specifically incorporated by reference in such documents that are incorporated), and the other documents required to be delivered to eligible participants in the Option Plan or the DSU Plan, as applicable, pursuant to Rule 428(b) under the Securities Act. Those documents are incorporated by reference in the Section 10(a) prospectus. Requests should be directed to:

DiaMedica Therapeutics Inc. 2 Carlson Parkway, Suite 260 Minneapolis, Minnesota 55447 Attention: Chief Financial Officer Tel: (763) 496-5454

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Company hereby incorporates by reference into this Registration Statement the following documents which have been previously filed (not furnished) with the SEC:

- (a) The Company's prospectus filed with the SEC pursuant to Rule 424(b) promulgated under the Securities Act, dated December 6, 2018, in connection with the Registration Statement on Form S-1, as amended (File No. 333-228313), which contains the Registrant's audited financial statements for the latest fiscal year for which such statements have been filed;
- (b) The Company's Current Report on Form 8-K (only to the extent information is "filed" and not "furnished") as filed with the SEC on December 11, 2018 (File No. 001-36291); and
- (c) The description of the Company's Common Shares and common share purchase rights which is contained in the Company's Registration Statement on Form S-1, as amended (File No. 333-228313), which description is incorporated by reference into the Registration Statement on Form 8-A filed with the SEC on December 3, 2018 pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any amendment or report filed for the purpose of updating such description (File No. 001-36291).

In addition, all other documents filed (not furnished) by the Company pursuant to Section 13(a), Section 13(c), Section 14 or Section 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered hereby have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated in this Registration Statement by reference and to be a part of this Registration Statement from the date of filing of such documents; *provided*, *however*, that documents or information deemed to have been furnished to and not filed with the SEC in accordance with the rules of the SEC shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Company is a corporation organized under the Canada Business Corporation Act (the "CBCA"). Under Section 124 of the CBCA, a corporation may indemnify a present or former director or officer of the corporation or another individual who acts or acted at the corporation's request as a director or officer, or an individual acting in a similar capacity, of another entity, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the corporation or other entity. A corporation may not indemnify an individual unless the individual (i) acted honestly and in good faith with a view to the best interests of the corporation, or, as the case may be, to the best interests of the other entity for which the individual acted as a director or officer or in a similar capacity at the corporation's request, and (ii) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that the conduct was lawful. Each of the aforementioned individuals are entitled to the indemnification provided above from a corporation as a matter of right if they were not judged by the court or other competent authority to have committed any fault or omitted to do anything that the individual ought to have done and if the individual fulfills conditions (i) and (ii) above. A corporation may advance moneys to a director, officer or other individual for the costs, charges and expenses of a proceeding; however, the individual shall repay the moneys if the individual does not fulfill the conditions set out in (i) and (ii) above. The indemnification or the advance of any moneys may be made in connection with a derivative action only with court approval and only if the conditions in (i) and (ii) above are met.

Under the CBCA, a corporation may purchase and maintain insurance for the benefit of any of the aforementioned individuals against any liability incurred by the individual in their capacity as a director or officer of the corporation, or in their capacity as a director or officer, or similar capacity, of another entity, if the individual acted in such capacity at the corporation's request. The Company has maintained, and expect to continue to maintain, such an insurance policy covering the Company's directors and officers with respect to certain liabilities.

The Company has entered into indemnification agreements with all of its directors and officers. The indemnification agreements are governed exclusively by and construed according to the substantive laws of the Canada, without regard to conflicts-of-laws principles that would require the application of any other law and provide, among other things, for indemnification to the fullest extent permitted by law and the Company's by-laws against any and all expenses (including attorneys' fees) and liabilities, judgments, fines and amounts paid in settlement that are paid or incurred by the executive or on his or her behalf in connection with such action, suit or proceeding. The Company will be obligated to pay these amounts only if the executive acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company. The indemnification agreements provide that the executive will not be indemnified and expenses advanced with respect to an action, suit or proceeding initiated by the executive unless (i) so authorized or consented to by the Company Board of Directors or the company has joined in such action, suit or proceeding or (ii) the action, suit or proceeding is one to enforce the executive's rights under the indemnification agreement. The Company's indemnification and expense advance obligations are subject to the condition that an appropriate person or body not party to the particular action, suit or proceeding shall not have determined that the executive is not permitted to be indemnified under applicable law. The indemnification agreements also set forth procedures that apply in the event an executive requests indemnification or an expense advance.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of the Company arising out of claims based on acts or omissions in their capacities as directors or officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Company pursuant to the foregoing provisions, or otherwise, the Company has 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 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed with or incorporated by reference into this Registration Statement:

Exhibit No.	Description
4.1	Certificate of Continuance of DiaMedica Therapeutics Inc. dated April 11, 2016 (incorporated by reference to Exhibit 3.1 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.2	Certificate of Amendment of DiaMedica Therapeutics Inc. dated December 28, 2016 (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.3	Certificate of Amendment of DiaMedica Therapeutics Inc. dated September 24, 2018 (incorporated by reference to Exhibit 3.3 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.4	Certificate of Amendment of DiaMedica Therapeutics Inc. dated November 15, 2018 (incorporated by reference to Exhibit 3.4 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.5	By-Law No. 1 and 2 of DiaMedica Therapeutics Inc. as amended and restated on September 30, 2018 (incorporated by reference to Exhibit 3.5 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.6	Specimen Certificate representing Common Shares of DiaMedica Therapeutics Inc. (incorporated by reference to Exhibit 4.13 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
4.7	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 the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
5.1*	Opinion of Pushor Mitchell LLP regarding the validity of the common shares being registered
23.1*	Consent of Baker Tilly Virchow Krause, LLP
23.2*	Consent of Pushor Mitchell LLP (Included within the opinion filed as Exhibit 5.1)
24.1*	Power of Attorney (Included on signature page to this Registration Statement)
99.1	DiaMedica Therapeutics Inc. Stock Option Plan Amended and Restated November 6, 2018 (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))
99.2	DiaMedica Therapeutics Inc. Deferred Share Unit Plan (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1 filed with the SEC on November 9, 2018 (File No. 333-228313))

* Filed herewith.

Item 9. Undertakings.

- (a) The 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;
 - (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 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) and (a)(1)(ii) herein do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

- (2) That, for the purpose of determining any liability under the Securities Act, 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.
- (b) The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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 may be permitted to the 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 Securities 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 Securities Act and will be governed by final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 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 December 14, 2018.

DIAMEDICA THERAPEUTICS INC.

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

POWER OF ATTORNEY

We, the undersigned officers and directors of DiaMedica Therapeutics Inc., hereby severally constitute and appoint Rick Pauls and Scott Kellen, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said 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 full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his 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 has been signed by the following persons in the capacities and on the dates indicated.

Name and Signature	Title	Date
/s/ Rick Pauls Rick Pauls	President, Chief Executive Officer and Director (principal executive officer)	December 14, 2018
/s/ Scott Kellen Scott Kellen	Chief Financial Officer and Secretary (principal financial and accounting officer)	December 14, 2018
/s/ Richard Pilnik Richard Pilnik	Chairman of the Board	December 14, 2018
/s/ Michael Giuffre, M.D. Michael Giuffre, M.D.	Director	December 14, 2018
/s/ James Parsons James Parsons	Director	December 14, 2018
/s/ Zhenyu Xiao, Ph.D. Zhenyu Xiao, Ph.D.	Director	December 14, 2018



December 14, 2018

DiaMedica Therapeutics Inc. c/o DiaMedica USA Inc. Suite 260, Two Carlson Parkway Minneapolis, Minnesota 55447

Dear Sirs/Mesdames:

RE: DiaMedica Therapeutics Inc. - Registration Statement on Form S-8

We have acted as special Canadian counsel for DiaMedica Therapeutics Inc., a corporation existing under the federal laws of Canada (the "Corporation") in connection with its preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-8 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to an aggregate of 783,918 voting common shares of the Corporation (the "Shares") issuable under the DiaMedica Therapeutics Inc. Stock Option Plan Amended and Restated November 6, 2018 (the "Option Plan") and the DiaMedica Therapeutics Inc. Amended and Restated Deferred Share Unit Plan (together with the Option Plan, the "Plans"), each as in effect on the date hereof.

We have examined copies of such corporate records of the Corporation 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 opinion set forth herein.

We are solicitors qualified to practice law in the Province of British Columbia (the "**Province**"). This opinion is rendered solely with respect to the laws of the Province and the federal laws of Canada applicable therein, and 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;
- (c) that the Corporation is, and at all relevant times has been, in compliance with applicable laws; and
- (d) the minute books of the Corporation provided to us contain all constating documents of the Corporation and are a complete record of the minutes and resolutions of the directors and shareholders of the Corporation.

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 the Shares.

Based upon and subject to the assumptions and qualifications herein expressed, we are of the opinion that when issued in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the Shares will be validly issued as fully paid and non-assessable common shares in the capital of the Corporation.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to any references to this firm in any prospectus contained therein. In giving this consent, we do not admit that we are experts within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required by Section 7 of the Securities Act.

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 given as of the date hereof and we disclaim any obligation or undertaking to advise you of any change in law or fact affecting or bearing upon this opinion occurring after the date hereof which may come or be brought to our attention.

Yours truly

/s/ Pushor Mitchell LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors
DiaMedica Therapeutics Inc.:

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated August 27, 2018, except for Note 1, as to which the date is November 19, 2018, with respect to the consolidated financial statements of DiaMedica Therapeutics Inc. included in its Registration Statement on Form S-1, as filed with the Securities and Exchange Commission.

/s/ Baker Tilly Virchow Krause, LLP

Minneapolis, Minnesota December 14, 2018