As filed with the Securities and Exchange Commission on March 14, 2022

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)

British Columbia

(State or other jurisdiction of incorporation or organization)

Two Carlson Parkway, Suite 260 Minneapolis, Minnesota (Address of Principal Executive Offices) Not Applicable (I.R.S. Employer Identification No.)

> 55447 (Zip Code)

DiaMedica Therapeutics Inc. 2021 Employment Inducement Incentive Plan (Full title of the plan)

Rick Pauls President and Chief Executive Officer DiaMedica Therapeutics Inc. Two Carlson Parkway, Suite 260 Minneapolis, Minnesota 55447 (Name and address of agent for service)

(763) 312-6755 (Telephone number, including area code, of agent for service)

Copies requested to:

Amy E. Culbert Fox Rothschild LLP Two22 Building, Suite 2000 222 South Ninth Street Minneapolis, Minnesota 55402 (612) 607-7000 Keith Inman Pushor Mitchell LLP 301 – 1665 Ellis Street Kelowna, British Columbia Canada V1Y 2B3 (250) 762-2108

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," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer \Box Non-accelerated filer \Box Accelerated filer \Box Smaller reporting company \boxtimes Emerging growth company \boxtimes

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. \boxtimes

EXPLANATORY NOTE

DiaMedica Therapeutics Inc. (the Registrant or the Company) has filed this registration statement on Form S-8 (Registration Statement) with the United States Securities and Exchange Commission (SEC) under the United States Securities Act of 1933, as amended (Securities Act), to register 1,000,000 voting common shares, no par value per share, of the Company (Common Shares), issuable to eligible individuals pursuant to awards granted under the DiaMedica Therapeutics Inc. 2021 Employment Inducement Incentive Plan (the Plan).

On December 3, 2021, the Company's Board of Directors adopted the Plan, pursuant to which the Company reserved 1,000,000 Common Shares to be used exclusively for grants of equity-based awards to individuals who were not previously employees or directors of the Company, as an inducement to the individual's entry into employment with the Company within the meaning of Rule 5635(c)(4) of the Nasdaq Listing Rules. The Plan provides for the grant of equity-based awards in the form of stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance awards, or other stock-based awards. The Plan was adopted by the Company's Board of Directors without shareholder approval pursuant to Rule 5635(c)(4) of the Nasdaq Listing Rules.

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 Plan 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 Plan pursuant to Rule 428(b) under the Securities Act. Those documents are incorporated by reference in the Securities should be directed to:

DiaMedica Therapeutics Inc. Two 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.

SEC:

- The Company hereby incorporates by reference into this Registration Statement the following documents which have been previously filed (not furnished) with the C:
 - (a) The Company's Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC or<u>March 14, 2022</u> (File No. 001-36291);
 - (b) The Company's Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that are related to such items) filed with the SEC on <u>February 11, 2022</u> (File No. 001-36291);
 - (e) The description of the Company's Common Shares which is contained in Exhibit 4.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on <u>March 10, 2021</u> 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.

British Columbia Law

Under Section 160 of the British Columbia Business Corporations Act (BCBCA), the Company may indemnify an eligible party including, but not limited to, a current or former director or officer of the Company; a current or former director or officer of another corporation: (i) at a time when the corporation is or was an affiliate of the Company, or (ii) at the Company's request; or, an individual who, at the Company's 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 or the associated corporation, as the case may be, or (iii) in the case of an eligible parceding other than a civil proceeding, if the eligible party did not act honestly and in good faith with a view to the best interests of the Company 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.

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DiaMedica's Articles

The Company's Articles provide that the Company 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.

The foregoing description of the Company's Articles is only a summary and is qualified in its entirety by the full text of the foregoing.

Indemnification Agreements

The Company has entered into and, in the future, will enter into indemnification agreements with its officers and directors in respect of any legal claims or actions initiated against them in their capacity as officers and directors of the Company or its 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 the Company's officers and directors. Pursuant to such indemnities, the Company will bear the cost of the representation of certain officers and directors.

Insurance Policies

The Company maintains insurance for certain liabilities incurred by the Company's directors and officers in their capacity with the Company or its subsidiaries.

SEC's Position on Indemnification

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, the Company has been informed 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					
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))					
5.1	Opinion of Pushor Mitchell LLP (filed herewith)					
23.1	Consent of Baker Tilly US, LLP (filed herewith)					
23.2	Consent of Pushor Mitchell LLP (included in Exhibit 5.1)					
24.1	Power of Attorney (included on signature page to the Registration Statement)					
99.1	DiaMedica Therapeutics Inc. 2021 Employment Inducement Incentive Plan (incorporated by reference to Exhibit 10.5 to DiaMedica's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 as filed with the Securities and Exchange Commission on March 14, 2022 (File No. 001- 36921))					

107 <u>Filing Fee Table (filed herewith)</u>

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 Section 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 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 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 (b) 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 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 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 Plymouth, State of Minnesota, on March 14, 2022.

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 (i) any and all amendments (including post-effective amendments) to this Registration Statement and (ii) any registration statement or post-effective amendment thereto to be filed with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act of 1933, as amended, 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 fully 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)	March 14, 2022
/s/ Scott Kellen Scott Kellen	Chief Financial Officer and Secretary (principal financial and accounting officer)	March 14 2022
/s/ Richard Pilnik Richard Pilnik	Chairman of the Board	March 14, 2022
/s/ Amy Burroughs Amy Burroughs	Director	March 14, 2022
/s/ Michael Giuffre, M.D. Michael Giuffre, M.D.	Director	March 14, 2022
/s/ James Parsons James Parsons	Director	March 14, 2022
/s/ Charles Semba, M.D. Charles Semba, M.D.	Director	March 14, 2022

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March 14, 2022

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 governed under the laws of British Columbia (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 1,000,000 voting common shares of the Corporation (the 'Shares") issuable under the DiaMedica Therapeutics Inc. 2021 Employment Inducement Incentive Plan (the "Inducement Plan"), 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 we express no opinion as to any laws or matters governed by any laws other than the laws of the Province.

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

- the genuineness of all signatures on documents, agreements and certificates; (a)
- (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;
- that the Corporation is, and at all relevant times has been, in compliance with applicable laws; and (c)

(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.

Whenever our opinion refers to securities of the Corporation issued as being "fully paid and non-assessable", such opinion indicates that the holder of such securities cannot be required to contribute any further amounts to the Corporation by virtue of its status as holder of such securities, either in order to complete payment for the securities, to satisfy claims of creditors or otherwise. No opinion is expressed as to actual receipt by the Corporation of the consideration for the issuance of such securities or as to the adequacy of any consideration received.

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 Inducement Plan (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

"Pushor Mitchell LLP" (signed)

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 14, 2022, with respect to the consolidated financial statements of DiaMedica Therapeutics Inc. included in its Annual Report on Form 10-K for the years ended December 31, 2021 and 2020.

/s/ Baker Tilly US, LLP

Minneapolis, Minnesota

March 14, 2022

Calculation of Filing Fee Tables

Form S-8

(Form Type)

DiaMedica Therapeutics Inc. (Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule or Instruction	Amount Registered(1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Voting Common Shares, no par value per share	457(c) and 457(h)	325,000(2)	\$3.38(3)	\$1,098,500	\$92.70 per \$1,000,000	\$101.83
Equity	Voting Common Shares, no par value per share	457(c) and 457(h)	675,000(4)	\$2.51(5)	\$1,694,250	\$92.70 per \$1,000,000	\$157.06
	Total Offering Amounts						\$258.89
	Total Fee Offsets						\$0.00
	Net Fee Due						\$258.89

(1) The DiaMedica Therapeutics Inc. 2021 Employment Inducement Incentive Plan (the Plan) authorizes the issuance of not more than 1,000,000 voting common shares, no par value per share, of the registrant (Common Shares), all of which are being registered hereunder. Pursuant to Rule 416 under the Securities Act of 1933, as amended (Securities Act), this registration statement will also cover any additional Common Shares that become issuable under the Plan by reason of any stock split, stock dividend, recapitalization or other similar transaction effected without the registrant's receipt of consideration which would increase the number of outstanding Common Shares.

- (2) Represents 325,000 Common Shares subject to outstanding option awards granted under the Plan. To the extent any such Common Shares subject to awards outstanding under the Plan are terminated, expire or lapse for any reason without delivery of Common Shares, such Common Shares will become available for future issuance under the Plan. See footnote 4 below.
- (3) With respect to Common Shares subject to outstanding stock options granted under the Plan, estimated in accordance with Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee on the basis of the weighted average exercise price of \$3.38 per share for such outstanding stock options granted under the Plan.
- (4) Represents 675,000 Common Shares available for future issuance under the Plan. To the extent outstanding option awards granted under the Plan are terminated, expire or lapse for any reason and are not issued under the Plan, the Common Shares subject to such option awards will become available for future issuance under the Plan.
- (5) With respect to shares of Common Stock available for future issuance under the Plan, estimated solely for the purpose of calculating the amount of the registration fee and calculated pursuant to Rule 457(h)(1) and (c) under the Securities Act on the basis of the average of the high and low sales prices of the Common Shares, as reported by The Nasdaq Capital Market on March 8, 2022.