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)

Not Applicable (I.R.S. Employer Identification No.)

Two Carlson Parkway, Suite 260
Minneapolis, Minnesota
(Address of Principal Executive Offices)

55447 (Zip Code)

DiaMedica Therapeutics Inc. Amended and Restated 2019 Omnibus 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," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange |
| Act. |

Large accelerated filer \square Non-accelerated filer \boxtimes 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. \boxtimes

EXPLANATORY NOTE

This Registration Statement on Form S-8 (Registration Statement) of DiaMedica Therapeutics Inc. (the Registrant or the Company) is being filed pursuant to General Instruction E to Form S-8 under the United States Securities Act of 1933, as amended (Securities Act), to register an additional 2,000,000 voting common shares, no par value per share, of the Company (Common Shares) available for issuance under the DiaMedica Therapeutics Inc. Amended and Restated 2019 Omnibus Incentive Plan. The share increase was approved by the Company's Board of Directors on March 10, 2022 and by the Company's shareholders at the Company's 2022 Annual General Meeting of Shareholders held on May 18, 2022. On May 23, 2019, the Company filed with the United States Securities and Exchange Commission (SEC) a Registration Statement on Form S-8 (File No. 333-231717) (Prior Registration Statement) to register the initial 2,000,000 Common Shares available for issuance under the DiaMedica Therapeutics Inc. 2019 Omnibus Incentive Plan. The contents of the Prior Registration Statement, with the exception of Items 3, 6 and 8 of Part II of such Prior Registration Statement, are hereby incorporated by reference.

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 Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC or March 14, 2022 (File No. 001-36291);
- (b) The Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 filed with the SEC on May 4, 2022 and the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 filed with the SEC on August 10, 2022 (File No. 001-36291);
- (c) 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 February 11, 2022, May 19, 2022, May 25, 2022, June 29, 2022 and July 6, 2022 (File No. 001-36291); and
- (d) 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 March 10, 2021 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 Securities Exchange Act of 1934, as amended, 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 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 under Section 163 of the BCBCA if (i) giving the indemnity or paying the 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 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 pr

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 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 DiaMedicas 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 DiaMedicas 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 DiaMedicas 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. Amended and Restated 2019 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1 to DiaMedica's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 19, 2022 (File No. 001-36291)) | | | | | | | |
| 107 | Filing Fee Table (filed herewith) | | | | | | | |
| 5 | | | | | | | | |

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 August 11, 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) | August 11, 2022 |
| /s/ Scott Kellen Scott Kellen | Chief Financial Officer and Secretary (principal financial and accounting officer) | August 11, 2022 |
| /s/ Richard Pilnik Richard Pilnik | Chairman of the Board | August 11, 2022 |
| /s/ Amy Burroughs Amy Burroughs | Director | August 11, 2022 |
| /s/ Michael Giuffre, M.D. Michael Giuffre, M.D. | Director | August 11, 2022 |
| /s/ James Parsons James Parsons | Director | August 11, 2022 |
| /s/ Charles Semba, M.D. Charles Semba, M.D. | Director | August 11, 2022 |



August 11, 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 the registration of 2,000,000 voting common shares of the Corporation (the "**Shares**") issuable under the DiaMedica Therapeutics Inc. Amended and Restated 2019 Omnibus Incentive Plan (the "**Plan**").

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:

- (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.

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 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 the Registration Statements on Form S-8 of DiaMedica Therapeutics Inc. of our report dated March 14, 2022, relating to the consolidated financial statements, appearing in the annual report on Form 10-K for the years ended December 31, 2021 and 2020.

/s/ BAKER TILLY US, LLP

Minneapolis, Minnesota

August 11, 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 | Amount Registered(1) | Proposed Maximum Offering Price Per Unit(2) | Maximum Aggregate Offering Price | Fee Rate | Amount of Registration Fee |
|------------------------|--|----------------------------|-------------------------|---|---|----------------------------|----------------------------------|
| Equity | Voting Common Shares, no par value per share | 457(c) and 457(h) | 2,000,000 | \$1.61 | \$3,220,000 | \$92.70 per \$1,000,000 | \$298.49 |
| Total Offering Amounts | | | | | \$3,220,000 | | \$298.49 |
| Total Fee Offsets | | | | | | | \$0.00 |
| Net Fee Due | | | | | | | \$298.49 |

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (Securities Act), this registration statement will also cover any additional voting common shares, no par value per share, of the Company (Common Shares) that become issuable under the DiaMedica Therapeutics Inc. Amended and Restated 2019 Omnibus Incentive 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) 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 Common Shares, as reported by The Nasdaq Capital Market on August 4, 2022.