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

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

MONOPAR THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Delaware32-0463781(State or Other Jurisdiction of
Incorporation or Organization)(I.R.S. Employer
Identification Number)

1000 Skokie Blvd., Suite 350 Wilmette, IL 60091 (847) 388-0349

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

Chandler D. Robinson Chief Executive Officer 1000 Skokie Blvd., Suite 350 Wilmette, Illinois 60091 (847) 388-0349

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

John J. Harrington Baker & Hostetler LLP 127 Public Square, Suite 2000 Cleveland, Ohio 44114 (216) 621-0200

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, check the following box. \boxtimes

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) 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. \Box

If this Form is a post-effective amendment filed pursuant t statement number of the earlier effective registration statement for the		462(c) under the Securities Act, check the following box and list the Securities Act r offering. \Box	egistration
If this Form is a registration statement pursuant to Genera Commission pursuant to Rule 462(e) under the Securities Act, check		ction I.D. or post-effective amendment thereto that shall become effective upon filin lowing box. \Box	g with the
If this Form is a post-effective amendment to a registration classes of securities pursuant to Rule 413(b) under the Securities Ac		nent filed pursuant to General Instruction I.D. filed to register additional securities or the following box. \Box	additional
		d filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or ar tted filer," "smaller reporting company," and "emerging growth company" in Rule 12	
Large accelerated filer Non-accelerated filer		Accelerated filer Smaller reporting company Emerging growth company	
If an emerging growth company, indicate by check mark if inancial accounting standards provided pursuant to Section 7(a)(2)(_	strant has elected not to use the extended transition period for complying with any new less executives Act . \Box	or revised
ile a further amendment which specifically states that this i	registra	such date or dates as may be necessary to delay its effective date until the Regist tion statement shall thereafter become effective in accordance with Section 8 effective on such date as the Securities and Exchange Commission, acting pursua	(a) of the

EXPLANATORY NOTE

We are filing this registration statement with the Securities and Exchange Commission (the "SEC"), using a "shelf" registration process, to replace our prior registration statement (File No. 333-268935) that will expire on January 4, 2026, in accordance with applicable SEC regulations. Upon the date of effectiveness of this registration statement, the offering of securities pursuant to the prior registration statement will be deemed terminated. Under this shelf registration statement, we may, from time to time, sell any combination of the securities described herein, in one or more offerings, up to a maximum aggregate offering price of \$300,000,000. The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus.

SUBJECT TO COMPLETION, DATED AUGUST 29, 2025

PRELIMINARY PROSPECTUS

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS

\$300,000,000



Common Stock Warrants Subscription Rights Units

We may offer and sell an indeterminate number of shares of our common stock, par value \$0.001 per share (the "Common Stock"), warrants to purchase Common Stock (the "Warrants"), subscription rights to purchase securities that may be offered under this prospectus (the "Subscription Rights") and units comprised of one or more of the other securities that may be offered under this prospectus (the "Units", and together with our Common Stock, Warrants and Subscription Rights, the "Securities") from time to time under this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

We may offer our Securities in one or more offerings in amounts, at prices, and on terms determined at the time of the offerings. We may sell our Securities through agents, underwriters or dealers we select. If we use agents, underwriters or dealers, we will name them and describe their compensation in a prospectus supplement.

This prospectus provides a general description of our Securities that we may offer. Each time we sell our Securities, we will provide 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 our Securities. This prospectus may not be used to consummate a sale of our Securities unless accompanied by the applicable prospectus supplement.

Investing in our Securities involves significant risks. See "Risk Factors" included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase our Securities.

Neither the SEC nor any state securities commission has approved or disapproved of these Securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is , 20____

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SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in, or incorporated by reference into, this prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our Securities. For a more complete understanding of our Company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus, including the information incorporated by reference into this prospectus, and the information referred to under the heading "Risk Factors" in this prospectus beginning on page 2, and in the documents incorporated by reference into this prospectus.

Overview

Monopar Therapeutics Inc. is a clinical-stage biopharmaceutical company developing an innovative treatment for Wilson disease and novel radiopharmaceuticals for oncology. Our Wilson disease product candidate is ALXN1840, a late-stage, investigational once-daily, oral medicine. Our radiopharmaceutical programs consist of Phase 1-stage MNPR-101-Zr for imaging advanced cancers, and Phase 1a-stage MNPR-101-Lu and late preclinical-stage MNPR-101-Ac for the treatment of advanced cancers, that express urokinase plasminogen activator receptor ("uPAR"). We build our drug development pipeline through both in-house efforts and licensing of late preclinical- and clinical-stage therapeutics, leveraging our scientific and clinical expertise to mitigate risk and to accelerate development.

Our principal executive offices are located at 1000 Skokie Blvd, Suite 350, Wilmette, IL 60091. Our telephone number is (847) 388-0349.

We are a "smaller reporting company" as defined in the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Smaller reporting companies may take advantage of certain scaled disclosures, including, among other things, providing only two years of audited financial statements in their Annual Report on Form 10-K and having reduced disclosure obligations regarding executive compensation. In addition, as a non-accelerated filer, we are not required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act. We will continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than \$250 million or (ii) our annual revenue is less than \$100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than \$700 million. For so long as we remain a smaller reporting company, we are permitted and intend to rely on exemptions from certain disclosures.

RISK FACTORS

You should consider carefully the risks discussed under the section captioned "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2024 and in our subsequent Quarterly Reports on Form 10-Q, as updated by our subsequent filings under the Exchange Act, each of which is incorporated by reference in this prospectus in its entirety, together with other information in this prospectus, and the information and documents incorporated by reference in this prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our securities. If any of these events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline, and could result in you losing all or part of your investment.

IMPORTANT INFORMATION ABOUT THIS PROSPECTUS

In this prospectus, unless the context suggests otherwise, references to "Monopar Therapeutics," "Monopar," the "Company," "we," "us" and "our" refer to Monopar Therapeutics Inc.

This prospectus is part of a "shelf" registration statement. By using a shelf registration statement, we may sell our Securities, as described in this prospectus, from time to time in one or more offerings. Each time we sell our Securities, we will provide a prospectus supplement to this prospectus that contains specific information about the terms of such offering. The prospectus supplement may also add, update or change information contained in this prospectus. Before purchasing our Securities, you should carefully read both this prospectus and any prospectus supplement, together with the additional information incorporated by reference into this prospectus or described under the heading "Where You Can Find More Information."

You should rely only on the information contained, or incorporated by reference, in this prospectus and any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell our Securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, and incorporated by reference, is accurate only as of the date on the front cover of this prospectus or when such document was filed with the SEC, as applicable. Our business, financial condition, results of operations and prospects may have changed since the relevant date.

Neither we, nor any of our officers, directors, agents, representatives or underwriters, make any representation to you about the legality of an investment. You should not interpret the contents of this prospectus, any prospectus supplement, or any free writing prospectus to be legal, business, investment or tax advice. You should consult with your own advisors for that type of advice and consult with them about the legal, tax, business, financial and other issues that you should consider before investing in our Securities.

We will not use this prospectus to offer and sell our Securities unless it is accompanied by a prospectus supplement that more fully describes the terms of the offering.

FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Exchange Act. All statements other than statements of historical facts included in this prospectus are forward-looking statements. The words "hopes," "believes," "anticipates," "plans," "seeks," "estimates," "projects," "expects," "intends," "may," "could," "should," "would," "will," "continue," and similar expressions are intended to identify forward-looking statements. The following uncertainties and factors, among others, could affect future performance and cause actual results to differ materially from those matters expressed in or implied by forward-looking statements:

- our ability to raise sufficient funds in order for us to support continued clinical, regulatory and commercial development of our programs and to make contractual future milestone payments, as well as our ability to further raise additional funds in the future to support any existing or future product candidate programs through completion of clinical trials, the approval processes and, if applicable, commercialization;
- our ability to raise funds on acceptable terms;
- our ability to find a suitable pharmaceutical partner or partners to further our development efforts, under acceptable financial terms;
- risks and uncertainties associated with our or any development partners' research and development activities, including preclinical studies, clinical trials, regulatory submissions, and manufacturing and quality expenses;
- known and unknown risks associated with developing copper-chelating therapies and radiopharmaceutical therapeutics and imaging agents;
- the uncertainty of timeframes for our clinical trials and regulatory reviews for approval to market products;
- uncertainties related to the regulatory discussions we may initiate related to ALXN1840 and the outcome(s) thereof;
- potential delays and/or additional significant expenses related to developing and filing a New Drug Application ("NDA") for ALXN1840;
- our ability to address the fulfillment and logistical challenges posed by the potential time-limited shelf-life of our current radiopharmaceutical programs or future drug candidates;
- our ability to obtain an adequate supply at reasonable costs of radioisotopes that we are currently using or that we may incorporate in the future into our drug candidates;
- market uptake and competitiveness in terms of pricing, efficacy and safety, of any products for which we receive marketing approval, and our ability to
 competitively market and position any such products as compared to larger pharmaceutical companies;
- the difficulties of commercialization, marketing and product manufacturing and overall strategy;
- uncertainties of intellectual property position and strategy including new discoveries and patent filings;
- our ability to attract and retain experienced and qualified key personnel and/or to find and utilize external sources of experience, expertise and scientific, medical
 and commercialization knowledge to complete product development and commercialization of new products;
- the risks inherent in our estimates regarding the level of needed expenses, capital requirements and the availability of required additional financing at acceptable terms or at all;

- U.S. political leadership developments may affect the economy and future laws, tariffs, and regulations or executive orders, and may in turn lead to increased or
 decreased governmental control of healthcare and pharmaceuticals, governmental regulations impacting cost requirements and structures for importing ingredients
 or products or selling therapeutic or imaging products, and governmental legislation, executive orders and/or tariffs affecting other industries which may indirectly
 increase our costs of obtaining goods and services and our cost of capital;
- the uncertain impact of any COVID-19 resurgence or of another pandemic may have on our ability to advance our clinical programs and raise additional financing:
- the cumulative impact of domestic and global inflation, volatility in financial markets and the potential for an economic recession, resulting in higher costs for obtaining goods and services and/or making financing more difficult to obtain on acceptable terms or at all;
- the uncertain impact of the Russia-Ukraine war, the Israel-Hamas war, and/or any potential future conflicts on our clinical material manufacturing expenses and timelines, as well as on general political, economic, trade and financial market conditions; and
- the uncertainty of our financial projections and operational timelines and the development of new competitive products and technologies.

Although we believe that the expectations reflected in such forward-looking statements are appropriate, we can give no assurance that such expectations will be realized. All subsequent written and oral forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements above and made elsewhere in this prospectus and future supplemental prospectuses. We undertake no obligation to update any statements made in this prospectus or elsewhere, including without limitation any forward-looking statements, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

USE OF PROCEEDS

Unless otherwise specified in a prospectus supplement accompanying this prospectus, the net proceeds from the sale by us of the Securities to which this prospectus relates will be used for general corporate purposes. Net proceeds may be temporarily invested prior to use. When we offer and sell the Securities to which this prospectus relates, the prospectus supplement related to such offering will set forth our intended use of the proceeds, if any, received from the sale of such Securities.

DESCRIPTION OF CAPITAL STOCK

We have the authority to issue 40,000,000 shares of Common Stock, \$0.001 par value. As of August 25, 2025, there were 6,169,961 shares of our Common Stock issued and outstanding.

Common Stock

Voting Rights

The holders of shares of our Common Stock are entitled to one vote per share for the election of directors and on all other matters submitted to a vote of stockholders. Shares of our Common Stock do not have cumulative voting rights. The election of our Board of Directors ("Board") is decided by a plurality of the votes cast by the holders of stock entitled to vote at a meeting of stockholders.

Dividends

Holders of our Common Stock are entitled to receive such dividends as may be declared by our Board out of funds legally available therefor.

Liquidation

Upon our dissolution and liquidation, holders of our Common Stock are entitled to a ratable share of our net assets remaining after payments to our creditors.

Rights and Preferences

Our stockholders have no preemptive rights to acquire additional shares of our Common Stock or other securities. The shares of our Common Stock are not subject to redemption.

Preferred Stock

We have no preferred stock authorized or outstanding.

Anti-Takeover Provisions

Delaware Law

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our Board or unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Authorized but Unissued Shares

The authorized but unissued shares of our Common Stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of any exchange on which our shares are listed. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved Common Stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Election of Director by Plurality of Shares; Vacancies

Our Amended and Restated By-laws (the "By-laws") provide that directors will be elected by a plurality of the votes cast by the shares present in person or represented by proxy at a meeting of stockholders at which a quorum is present and entitled to vote at such meeting. There is no cumulative voting, and accordingly, directors may be elected with a vote of holders of fewer than a majority of the outstanding Common Stock.

Our By-laws also provide that vacancies occurring on our Board may be filled by the affirmative votes of a majority of the remaining members of our Board or by the sole remaining director, and not by our stockholders. Such provisions in our corporate organizational documents and under Delaware law may prevent or frustrate attempts by our stockholders to change our management or hinder efforts to acquire a controlling interest in us. The inability to make changes to our Board could prevent or discourage an attempt to take control of the Company by means of a proxy contest, tender offer, merger or otherwise.

Special Meeting of Stockholders

Our By-laws provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our Board. Stockholders at a special meeting may only consider matters set forth in the notice of the meeting. These provisions could have the effect of delaying until the next meeting of stockholders actions that may otherwise be favored by the holders of a majority of our outstanding voting securities.

By-law Amendments by the Board

Without limiting the power of our stockholders to amend or repeal our By-laws, our By-laws may be amended or repealed by a majority vote of our Board without any stockholder action.

Listing

Our Common Stock is listed on the Nasdaq Capital Market under the symbol "MNPR."

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is VStock Transfer, LLC ("VStock"). VStock's address is 18 Lafayette Place, Woodmere, NY 11598.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement and free writing prospectus, summarizes the material terms and provisions of the Warrants that we may offer under this prospectus, which may consist of Warrants to purchase Common Stock. Warrants may be offered independently or in combination with Common Stock offered by any prospectus supplement. While the terms we have summarized below will apply generally to any Warrants that we may offer under this prospectus, we will describe the particular terms of any series of Warrants in more detail in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

General

The applicable prospectus supplement will describe the following terms of any Warrants:

- the specific designation and aggregate number of, and the offering price at which we will issue, the Warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the Warrants will begin and the date on which that right will expire or, if you may not continuously exercise the Warrants throughout that period, the specific date or dates on which you may exercise the Warrants;
- whether the Warrants will be issued in definitive or global form or in any combination of these forms;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent, if any, for the Warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the Warrants on any securities exchange;
- if applicable, the minimum or maximum amount of the Warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the antidilution provisions, and other provisions for changes to or adjustment in the exercise price, of the Warrants, if any;
- any redemption or call provisions; and
- any additional terms of the Warrants, including terms, procedures and limitations relating to the exchange or exercise of the Warrants.

Exercise of Warrants

Each Warrant will entitle the holder to purchase the Common Stock that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, Warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the Warrants offered thereby. After the close of business on the expiration date, unexercised Warrants will become void.

Upon receipt of payment and the properly completed and duly executed Warrant or warrant certificate, as applicable, at the corporate trust office of the warrant agent, if any, or at any other office indicated in the prospectus supplement, including ours, we will, as soon as practicable, issue and deliver the Common Stock purchasable upon such exercise. If fewer than all of the Warrants (or the Warrants represented by such warrant certificate) are exercised, a new Warrant or a new warrant certificate, as applicable, will be issued for the remaining Warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any Warrant. A single bank or trust company may act as a warrant agent for more than one issue of Warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or Warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a Warrant may, without the consent of the related warrant agent or of the holder of any other Warrant, enforce by appropriate legal action its right to exercise, and receive the Common Stock purchasable upon exercise of, its Warrants.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue Subscription Rights to purchase our Common Stock, Warrants, or Units consisting of some or all of these Securities. These Subscription Rights may be offered independently or together with any other Securities offered hereby and may or may not be transferable by the stockholder receiving the Subscription Rights in such offering. In connection with any offering of Subscription Rights, we may enter into a standby arrangement with one or more underwriters or other purchasers, pursuant to which the underwriters or other purchasers may be required to purchase any Securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any Subscription Rights we offer, if any, will, to the extent applicable, include specific terms relating to the offering, including some or all of the following:

- the price, if any, for the Subscription Rights;
- the exercise price payable for our Common Stock, Warrants, or Units consisting of some or all of these Securities, upon the exercise of the Subscription Rights:
- the number of Subscription Rights to be issued to each stockholder;
- the number and terms of our Common Stock, Warrants, or Units consisting of some or all of these Securities, which may be purchased per each Subscription Right;
- the extent to which the Subscription Rights are transferable;
- any other terms of the Subscription Rights, including the terms, procedures and limitations relating to the exchange and exercise of the Subscription Rights;
- the date on which the right to exercise the Subscription Rights shall commence, and the date on which the Subscription Rights shall expire;
- the extent to which the Subscription Rights may include an over-subscription privilege with respect to unsubscribed Securities or an over-allotment privilege to the extent the Securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement which may be entered into by us in connection with the offering of Subscription Rights.

DESCRIPTION OF UNITS

We may issue Units comprised of one or more of the other Securities that may be offered under this prospectus, in any combination. The following, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the Units that we may offer under this prospectus. While the terms summarized below will apply generally to any Units we may offer, we will describe the particular terms of any series of Units in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any Units offered under that prospectus supplement may differ from the terms described below. Specific unit agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus.

Each Unit will be issued so that the holder of the Unit is also the holder of the Securities included in the Unit. Thus, the holder of a Unit will have the rights and obligations of a holder of any included Securities. The unit agreement under which a Unit is issued may provide that the Securities included in the Unit may not be held or transferred separately at any time, or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of Units being offered, including:

- the material terms of the Units and of the Securities comprising the Units, including whether and under what circumstances those Securities may be held or transferred separately;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the Units or of the Securities comprising the Units; and
- any material provisions of the governing unit agreement that differ from those described above.

We may issue Units in such amounts and in such numbers of distinct series as we determine.

The provisions described in this section, as well as those described under "Description of Capital Stock" and "Description of Warrants" will apply to each Unit, as applicable, and to any Common Stock or Warrant included in each Unit, as applicable.

Unit Agent

The name and address of the unit agent, if any, for any Units we offer will be set forth in the applicable prospectus supplement.

Enforceability of Rights by Holders of Units

Each unit agent, if any, will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any Unit. A single bank or trust company may act as a unit agent for more than one series of Units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or Unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a Unit may, without the consent of the related unit agent or of the holder of any other Unit, enforce by appropriate legal action its rights as holder under any security included in the Unit.

PLAN OF DISTRIBUTION

We may sell our Securities covered in this prospectus in one or more of the following ways:

- through underwriters or dealers;
- directly to purchasers or to a single purchaser; or
- through agents.

The distribution of our Securities may be effected from time to time in one or more transactions:

- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each time that we use this prospectus to sell our Securities, we will also provide a prospectus supplement that contains the specific terms of the offering. The prospectus supplement will set forth the terms of the offering of our Common Stock, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents and the amounts of any of our Securities purchased by each of them; and
- the public offering price of our Securities and the proceeds to us and any discounts, commissions or concessions allowed or reallowed or paid to dealers.

Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

If underwriters are used in the sale of our Securities, our Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Our Securities may be offered to the public either through underwriting syndicates, represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase our Securities will be subject to certain conditions precedent. The underwriters may be obligated to purchase all of our Securities if they purchase any of our Securities.

We may sell the Securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of our Securities and any commissions we pay to them. Generally, any agent will be acting on a best-efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase our 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.

Agents and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents or underwriters may be required to make in connection therewith. Agents and underwriters may, in the ordinary course of business, be customers of, engage in transactions with, or perform services for us.

We may enter into derivative transactions with third parties, or sell our 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 third parties may sell our Securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, each third party may use our securities pledged by us, or borrowed from us or others, to settle those sales or to close out any related open borrowings of our securities, and may use our Securities received from us in settlement of those derivatives to close out any related open borrowings of our securities. Each third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment).

LEGAL MATTERS

Certain legal matters will be passed upon for us by Baker & Hostetler, LLP.

EXPERTS

The consolidated financial statements of Monopar Therapeutics Inc. as of December 31, 2024 and 2023, and for each of the two years in the period ended December 31, 2024, incorporated in this Prospectus by reference to its Annual Report on Form 10-K for the year ended December 31, 2024, have been so incorporated in reliance on the report of BPM LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC this shelf registration statement on Form S-3 under the Securities Act with respect to our Securities we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our Securities, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, such references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contracts, agreements or other documents.

We file annual, quarterly and current reports, information statements and proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facility at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. We also maintain a website at http://www.monopartx.com. You may access, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such materials are electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, our website is not a part of, and should not be construed as being incorporated by reference into, this prospectus or the accompanying prospectus supplement.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus, and the registration statement of which this prospectus is a part, the information and documents listed below that we have filed with the SEC:

- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2025, filed with the SEC on August 12, 2025;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2025, filed with the SEC on May 13, 2025;
- our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 31, 2025 ("2024 Form 10-K");
- the information specifically incorporated by reference into our 2024 Form 10-K from our Proxy Statement regarding our Annual Meeting of Stockholders on June 17, 2025, on <u>DEF14A</u>, filed with the SEC on April 30, 2025;
- our Current Reports on Form 8-K, filed with the SEC on <u>February 24, 2025</u>, <u>March 3, 2025</u>, and <u>June 23, 2025</u>, to the extent the information in such reports is filed and not furnished; and
- the description of our Common Stock contained in our Registration Statement on Form 8-A, registering our Common Stock under Section 12(b) under the Exchange Act, filed with the SEC on September 30, 2019, as amended and supplemented by the "Description of Capital Stock" beginning on page 5 of this prospectus and including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference any future filings (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the Common Stock made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Monopar Therapeutics, Inc., Attention: Corporate Secretary, 1000 Skokie Blvd., Suite 350, Wilmette, IL 60091. Our phone number is (847) 388-0349. You may also view the documents that we file with the SEC and incorporate by reference in this Prospectus on our corporate website at www.monopartx.com. The information on our website is not incorporated by reference and is not a part of this prospectus.



\$300,000,000

Common Stock Warrants Subscription Rights Units

Monopar Therapeutics Inc.

PROSPECTUS

, 20___

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance And Distribution

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable by us in connection with the registration of our Securities hereunder. All amounts are estimates except the SEC registration fee.

	Amou	nt to be paid
SEC Registration fee	\$	37,510
Legal fees and expenses		25,000
Accounting fees and expenses		6,000
Printing expenses		(1)
Transfer agent fees and expenses		(1)
Miscellaneous		(1)
Total		(1)

(1) These fees and expenses are calculated based on the Securities offered and the number of issuances, and accordingly, are not estimated at this time and will be reflected in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers.

Delaware Law

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Second Amended and Restated Certificate of Incorporation

Our Certificate of Incorporation provides that we are required to provide indemnification and advancement of expenses to our directors, officers or other agents to the fullest extent permitted by Delaware's General Corporation Law. Our Certificate of Incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, fraud, or gross negligence;
- for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

In addition, our Certificate of Incorporation provides that, to the fullest extent permitted by Delaware's General Corporation Law, we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, other than an action by or in the right of the Company, by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Indemnification Agreements

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future, but that have not yet been made. To date, the Company has neither paid any claims nor been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of future claims against these indemnification obligations.

In accordance with our Certificate of Incorporation, Amended and Restated By-laws and the indemnification agreements entered into with each officer and non-employee director, the Company has indemnification obligations to its officers and non-employee directors for certain events or occurrences, subject to certain limits, while they are serving at the Company's request in such capacities. There have been no indemnification claims to date.

Insurance

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers. We have also obtained directors and officers insurance that may cover potential claims against us and our officers and directors related to securities and corporate governance lawsuits.

Underwriting Agreement

In any underwriting agreement we enter into in connection with the sale of our Securities being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, against certain liabilities.

Item 16. Exhibits and Financial Statement Schedules

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (a) 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, as amended;
 - (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 the volume of the securities offered (if the total dollar value of the 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)(i), (a)(ii) and (a)(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 15(d) of the Exchange Act that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

- (b) 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.
 - (c) 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.
 - (d) 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.

- (e) 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.
- (f) That, for the purpose 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 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.
- (g) 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 Securities Act of 1933 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 of 1933 and will be governed by the final adjudication of such issue.

Exhibit Index

Exhibit Number	Exhibit Description	Incorporated by Reference From:
1.1*	Form of Underwriting Agreement	
3.1	Second Amended and Restated Certificate of Incorporation	Form 10-K filed on March 26, 2018
3.2	Certificate of Amendment	Form 8-K filed on August 9, 2024
3.3	Amended and Restated Bylaws	Form 10-Q filed on May 12, 2022
4.1	<u>Description of Registered Securities</u>	Form 10-K filed on March 28, 2024
4.2*	Form of Warrant Agreement	
4.3*	Form of Subscription Agreement	
4.4*	Form of Unit Agreement	
5.1	Opinion of Baker & Hostetler LLP	Filed herewith
23.1	Consent of BPM LLP, independent registered public accounting firm	Filed herewith
23.3	Consent of Baker & Hostetler LLP (included in Exhibit 5.1 filed herewith)	Filed herewith
24.1	Power of Attorney (included on the signature page of this registration statement)	Filed herewith
107	Filing Fee Table	Filed herewith
* To be f	iled by amendment or as an exhibit to a report filed under the Exchange Act and incorporated herein by reference, if ap	plicable.

SIGNATURES

Pursuant to the requirements of 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 Wilmette, State of Illinois, on this 29th day of August, 2025.

Monopar Therapeutics Inc.

By: /s/ Chandler D. Robinson
Name: Chandler D. Robinson

Title: Chief Executive Officer and Director

We, the undersigned officers and directors of Monopar Therapeutics Inc., hereby severally constitute and appoint Chandler D. Robinson and Quan Vu, and each of them singly, our true and lawful attorneys with full power to any of them, and to each of them singly, to sign for us and in our names in the capacities indicated below the Registration Statement on Form S-3 filed herewith and any and all amendments (including post-effective amendments) to said Registration Statement, and any registration statement filed pursuant to Rule 462 under the Securities Act of 1933, as amended, in connection with said Registration Statement, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, and generally to do all such things in our name and on our behalf in our capacities as officers and directors to enable Monopar Therapeutics Inc., to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming all that said attorneys, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ Chandler D. Robinson Chandler D. Robinson	Chief Executive Officer and Director (Principal Executive Officer)	August 29, 2025
/s/ Quan Vu Quan Vu	Chief Financial Officer (Principal Financial and Accounting Officer)	August 29, 2025
/s/ Christopher M. Starr Christopher M. Starr	Executive Chairman of the Board and Director	August 29, 2025
/s/ Raymond W. Anderson Raymond W. Anderson	Director	August 29, 2025
/s/ Arthur J. Klausner Arthur J. Klausner	Director	August 29, 2025
/s/ Kim. R. Tsuchimoto Kim. R. Tsuchimoto	Director	August 29, 2025
/s/ Lavina Talukdar Lavina Talukdar	Director	August 29, 2025

BakerHostetler

Baker&Hostetler LLP

Key Tower 127 Public Square, Suite 2000 Cleveland, OH 44114-1214

T 216.621.0200 F 216.696.0740 www.bakerlaw.com

August 29, 2025

Monopar Therapeutics Inc. 1000 Skokie Blvd., Suite 350 Wilmette, Illinois 60091

Ladies and Gentlemen:

We have acted as counsel to Monopar Therapeutics Inc., a Delaware corporation (the "Company"), in connection with the filing of a registration statement on Form S-3 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement includes a prospectus (the "Base Prospectus") that provides it will be supplemented in the future by one or more prospectus supplements (each, a "Prospectus Supplement"). The Registration Statement, including the Base Prospectus (as supplemented from time to time by one or more Prospectus Supplements), will provide for the registration by the Company of the sale of up to \$300 million of the following securities: (i) shares of common stock, par value \$0.001 of the Company (the "Common Stock"); (ii) warrants to purchase shares of Common Stock (the "Warrants"); (iii) subscription rights to purchase Common Stock, Warrants, Units or any combination thereof (the "Subscription Rights"); and (iv) units comprised of one or more of the securities described in clauses (i) through (iii) above, in any combination (the "Units" and, together with the Common Stock, Warrants and Subscription Rights, the "Securities"). The Securities may be offered and sold from time to time pursuant to Rule 415 under the Securities Act.

We have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including telecopies). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

For purposes of this opinion, we have assumed that:

- a) the Registration Statement and any amendments thereto will have become effective and remain effective at the time of issuance and sale of the Securities thereunder:
- b) the Company's Board of Directors or a duly authorized committee thereof shall have authorized the issuance and sale of the Securities by all necessary corporate action:
- c) at the time of the issuance and sale of the Securities, the total number of issued shares of Common Stock together with the total number of shares of Common Stock issuable upon the exercise, exchange, conversion or settlement, as the case may be, of any exercisable, exchangeable or convertible security, as the case may be, then outstanding, will not exceed the total number of authorized shares of Common Stock authorized and available for issuance pursuant to the Company's Second Amended and Restated Certificate of Incorporation, as it then may be amended;
- d) a Prospectus Supplement with respect to the offering of the Securities shall have been prepared, delivered and filed with the Commission in compliance with the Act and the rules and regulations thereunder, and such Securities shall have been issued and sold as described in the Registration Statement and such Prospectus Supplement and in accordance with the terms and conditions of any applicable underwriting, subscription or similar agreement; and

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that:

- a) the Common Stock offered pursuant to the Registration Statement will be validly issued, fully paid and non-assessable;
- b) when the Warrants have been duly executed and delivered against payment therefor, pursuant to the applicable warrant or similar agreement duly authorized, executed and delivered by the Company and any applicable warrant agent, then the Warrants will be validly issued and will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms;
- c) when the Subscription Rights have been duly executed and delivered against payment therefor, pursuant to the applicable rights or similar agreement duly authorized, executed and delivered by the Company and any applicable rights agent, then the Subscription Rights will be valid and binding obligations of the Company, enforceable against the Company in accordance with their terms; and
- d) when the Units (including any Securities underlying the Units) have been duly executed and delivered against payment therefor, pursuant to the applicable unit or similar agreement duly authorized, executed and delivered by the Company and any applicable unit or other agents, then the Units will be validly issued and will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The opinions expressed herein are limited to the General Corporation Law of the State of Delaware and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdiction.

We have relied as to certain matters on information obtained from public officials, officers of the Company, and other sources believed by us to be responsible.

We hereby consent to the filing of this letter as Exhibit 5.1 to the Registration Statement. 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 Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Baker & Hostetler LLP

BAKER & HOSTETLER LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 28, 2025, relating to the consolidated financial statements of Monopar Therapeutics Inc., as of and for the year ended December 31, 2024, which appears in the Annual Report on Form 10-K of Monopar Therapeutics Inc., for the year ended December 31, 2024. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ BPM LLP

Santa Rosa, California August 29, 2025

Calculation of Filing Fee Tables

S-3

Monopar Therapeutics

Table 1: Newly Registered and Carry Forward Securities

□Not Applicable

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	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit		Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Effective	Uncold
					Newly R	egistered Secui	rities					
	Equity	Common Stock, par value \$0.001 per share	457(o)		•							
Fees to be Paid	Unallocated 1 (Universal) Shelf		457(o)			\$300,000,000.00	0.0001531	\$ 45,930.00				
Fees Previously Paid												
					Carry F	orward Securit	ies					
Carry Forward Securities												
			Total Offerio	ng Amounts:		\$ 300,000,000.00		\$ 45,930.00				
		То	tal Fees Prev	-				\$ 0.00				
				Fee Offsets:				\$ 0.00				
			N	let Fee Due:				\$ 45,930.00				

Offering Note

- (1) There are being registered under this registration statement such indeterminate number of shares of common stock; such indeterminate number of warrants to purchase common stock; such indeterminate number of units as may be sold by the registrant from time to time, and such indeterminate number of subscription rights to purchase common stock, warrants and/or units which together shall have an aggregate initial offering price not to exceed \$300,000,000.
- (2) Pursuant to Instruction 2.A.iii.b. to the Calculation of Filing Fee Tables and Related Disclosure on Item 16(b) of Form S-3 under the Securities Act, the proposed maximum aggregate offering price per class of security is omitted, the security type "Unallocated (Universal) Shelf" is included and the maximum aggregate offering price for all of the classes of securities is provided on a combined basis.

(3) Calculated pursuant to Rule 457(o) under the Securities Act based on the maximum aggregate offering price.

Table 2: Fee Offset Claims and Sources

☑Not Applicable

	able 2. Fee Offset Olding and Godfeed												
		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	with Eco	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source	
				Rul	es 457(b) and 0-	11(a)(2)						
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
					Rule	457(p)							
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table 3: Combined Prospectuses

☑Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A