

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

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

TEMPEST THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard
Industrial Code Number)

45-1472564
(I.R.S. Employer
Identification Number)

**2000 Sierra Point Parkway, Suite 400
Brisbane, California, 94005
(415) 798-8589**
(Address, including zip code, and telephone number, including area code of registrant's principal executive offices)

Stephen Brady
Chief Executive Officer
**2000 Sierra Point Parkway, Suite 400
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(415) 798-8589**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Seattle, Washington 98101
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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement is declared effective.

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:

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

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

If this Form is a post-effective amendment filed pursuant to Rule 462(d) 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.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 13(a) of the Exchange Act.

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

PROSPECTUS

1,172,414 Shares



Common Stock

This prospectus relates to the offer and resale from time to time of up to an aggregate 1,172,414 shares of our common stock, par value \$0.001 per share, all of which are issuable upon the exercise of warrants to purchase shares of common stock (the "Warrants," and such shares of common stock issuable upon exercise of the Warrants, the "Warrant Shares"), by the selling stockholder named herein, together with any additional selling stockholders listed in a prospectus supplement (together with any of such stockholders' transferees, pledgees, donees or successors). The Warrants were acquired by the selling stockholder named herein pursuant to a securities purchase agreement, dated November 24, 2025 (the "Purchase Agreement"), in a transaction more fully described in the section titled "Prospectus Summary."

We are registering the offer and sale of the Warrant Shares from time to time by the selling stockholders to satisfy the registration rights granted in connection with the issuance of the Warrants. We will not receive any proceeds from the sale of the Warrant Shares by the selling stockholders.

The selling stockholders may offer and sell or otherwise dispose of the Warrant Shares described in this prospectus from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will bear all underwriting fees, commissions and discounts, if any, attributable to the sales of Warrant Shares and any transfer taxes. We will bear all other costs, expenses and fees in connection with the registration of the Warrant Shares. See "Plan of Distribution" for more information about how the selling stockholders may sell or dispose of their Warrant Shares.

Our common stock is listed on The Nasdaq Capital Market under the trading symbol "TPST." On December 8, 2025, the closing price of our common stock was \$3.11 per share.

Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under "[Risk Factors](#)" on page 4 of this prospectus and under similar headings in any amendment or supplement to this prospectus or in any filing with the Securities and Exchange Commission that is incorporated by reference herein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2025.

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

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ABOUT THIS PROSPECTUS

We have not authorized anyone to provide you with information other than the information that we have provided or incorporated by reference in this prospectus and your reliance on any unauthorized information or representation is at your own risk. This prospectus may be used only in jurisdictions where offers and sales of these securities are permitted. You should assume that the information appearing in this prospectus is accurate only as of the date of this prospectus and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, or any sale of our common stock. Our business, financial condition and results of operations may have changed since those dates.

Throughout this prospectus, the terms “we,” “us,” “our,” and our “company” refer to Tempest Therapeutics, Inc. and its subsidiaries.

PROSPECTUS SUMMARY

This summary highlights certain information about us, the Private Placement 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 making an investment decision. For a more complete understanding of our company, you should read and consider carefully the more detailed information included or incorporated by reference in this prospectus and any applicable prospectus supplement, including the factors described under the heading "Risk Factors" on page 4 of this prospectus, as well as the information incorporated herein by reference, before making an investment decision.

Company Overview

We are a clinical-stage biotechnology company with a diverse portfolio of targeted and immune-mediated product candidates with the potential to be first-in-class to treat a wide range of cancers. Our novel programs range from early research to the lead program, amezalpat (previously known as TPST-1120), that, subject to the need for additional resources, is ready to begin a pivotal study in first-line hepatocellular carcinoma, or HCC. In addition to amezalpat, our second clinical-stage therapeutic product candidate is TPST-1495 for Familial Adenomatous Polyposis. We believe both amezalpat and TPST-1495 are the first clinical-stage molecules designed to inhibit their respective targets.

Additional information about our company, including recent developments, is contained in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, including our Current Report on Form 8-K that we filed with the Securities and Exchange Commission ("SEC") on November 19, 2025.

Implications of Being a Smaller Reporting Company and a Non-Accelerated Filer

We are a "smaller reporting company," as defined in Rule 12b-2 of the Securities Exchange Act of 1934 (the "Exchange Act"), meaning that the market value of our shares held by non-affiliates is less than \$700 million and our annual revenue was less than \$100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year for which audited financial statements are available as of the determination date and the market value of our shares held by non-affiliates is less than \$700 million. As a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation. If investors consider our common stock less attractive as a result of our election to use the scaled-back disclosure permitted for smaller reporting companies, there may be a less active trading market for our common stock and our share price may be more volatile.

Additionally, as a non-accelerated filer, we may continue to take advantage of the exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended.

Corporate Background

Tempest was founded in 2011 and is currently incorporated in Delaware with headquarters in Brisbane, California. We are a clinical-stage biotechnology company moving into late-stage development with a diverse portfolio of first-in-class targeted and immune-mediated product candidates with the potential to treat a wide range of cancers. Our philosophy is to build a company based upon not only good ideas and creative science, but also upon the efficient translation of those ideas into therapies that will improve patients' lives.

The Tempest logo and other trademarks or service marks of Tempest Therapeutics, Inc. appearing in this prospectus supplement are the property of Tempest Therapeutics, Inc. Other trademarks, service marks or trade names appearing in this prospectus supplement are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

Our principal executive offices are located at 2000 Sierra Point Parkway, Suite 400, Brisbane, CA 94005. Our telephone number is (415) 798-8589. Our website is located at <http://www.tempestx.com>. We do not incorporate by reference into this prospectus supplement the information on, or accessible through, our website, and you should not consider it as part of this prospectus supplement.

Financing

On November 24, 2025, we entered into the Purchase Agreement with the selling stockholder named herein, pursuant to which we agreed to issue and sell (i) in a registered direct offering an aggregate of 487,000 shares of our common stock, and prefunded warrants to purchase 685,414 shares of our common stock (the "Prefunded Warrants"), pursuant to an effective shelf registration statement on Form S-3 (File No. 333-280918) and a related prospectus and prospectus supplement thereunder, and (ii) in a concurrent private placement (the "Private Placement"), Warrants to purchase an aggregate of 1,172,414 shares of our common stock. For additional information regarding the Purchase Agreement, refer to the summary included under Item 8.01 of our Current Report on Form 8-K filed with the SEC on November 26, 2025, which is incorporated by reference herein.

Under the terms of the Purchase Agreement, we agreed to prepare and file, within 15 days after the date of the Purchase Agreement, a registration statement with the SEC to register for resale the Warrant Shares, and generally to cause the registration statement to promptly become effective.

The Offering

Common stock offered by the selling stockholders	1,172,414 shares ⁽¹⁾
Terms of the offering	Each selling stockholder will determine when and how it will sell the common stock offered in this prospectus, as described in “Plan of Distribution.”
Use of Proceeds	We will not receive any proceeds from the sale of the shares of common stock covered by this prospectus.
Risk Factors	See “Risk Factors” on page 4 for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Nasdaq Capital Market symbol	TPST.

⁽¹⁾ Consists of Warrant Shares held by the selling stockholder named in this prospectus.

The selling stockholder named in this prospectus may offer and sell up to 1,172,414 shares of our common stock. Our common stock is currently listed on Nasdaq Capital Market under the symbol “TPST.” Shares of our common stock that may be offered under this prospectus will be fully paid and non-assessable. We will not receive any of the proceeds of sales by the selling stockholders of any of the common stock covered by this prospectus. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders for offer and resale, we are referring to the Warrant Shares. When we refer to the selling stockholders in this prospectus, we are referring to the selling stockholder identified in this prospectus and, as applicable, its permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described in the sections entitled “Risk Factors” in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q, as filed with the SEC, which are incorporated herein by reference in their entirety, as well any amendment or updates to our risk factors reflected in subsequent filings with the SEC, including any applicable prospectus supplement. Our business, financial condition, results of operations or prospects could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned elsewhere in this prospectus. For more information, see the section entitled “Where You Can Find Additional Information.” Please also read carefully the section entitled “Special Note Regarding Forward-Looking Statements.”

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and any applicable prospectus supplement or free writing prospectus, including the documents that we incorporate by reference herein and therein, contain “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 Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. In addition, statements indicating that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date they were made, and while we believe such information formed a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

We discuss many of these risks in greater detail under “Risk Factors” in this prospectus and in the “Risk Factors,” “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections incorporated by reference from our most recent Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q for the quarterly periods ended subsequent to our filing of such Annual Report on Form 10-K, as well as any amendments thereto reflected in subsequent filings with the SEC.

Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should read this prospectus, any applicable prospectus supplement, together with the documents that we have filed with the SEC that are incorporated by reference and any free writing prospectus we have authorized for use in connection with this offering, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale or other disposition of shares of our common stock held by the selling stockholders pursuant to this prospectus. We will bear the out-of-pocket costs, expenses and fees incurred in connection with the registration of shares of our common stock to be sold by the selling stockholders pursuant to this prospectus. Other than registration expenses, the selling stockholders will bear underwriting discounts, commissions, placement agent fees or other similar expenses payable with respect to sales of shares of our common stock.

SELLING STOCKHOLDERS

The selling stockholders may sell some, all or none of their shares. We do not know how long the selling stockholders will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale or other disposition of any of the shares. The shares covered hereby may be offered from time to time by the selling stockholders. As a result, we cannot estimate the number of shares of common stock each of the selling stockholders will beneficially own after termination of sales under this prospectus. In addition, the selling stockholder may have sold, transferred or otherwise disposed of all or a portion of its shares of common stock since the date on which it provided information for the table below.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock. Generally, a person “beneficially owns” shares of our common stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days.

The information in the table below and the footnotes thereto regarding shares of common stock to be beneficially owned after the offering assumes the sale of all shares being offered by the selling stockholder under this prospectus, consisting of the Warrant Shares. This information has been obtained from the selling stockholder. The percentage of shares owned after the offering is based on 4,927,161 shares outstanding as of December 1, 2025 plus the Warrant Shares plus the specified number of shares of common stock issuable upon exercise of Prefunded Warrants that are held by the selling stockholder.

As used in this prospectus, the term “selling stockholders” includes the selling stockholder listed in the table below, together with any additional selling stockholders listed in a prospectus supplement, and their donees, pledgees, assignees, transferees, distributees and successors-in-interest that receive Warrant Shares in any non-sale transfer after the date of this prospectus.

Name of Selling Stockholder	Shares of Common Stock Beneficially Owned prior to this Offering ⁽¹⁾	Number of Shares Being Offered ⁽²⁾	Beneficial Ownership After this Offering ⁽³⁾	
			Number of Shares	Percent of Outstanding Common Stock
Sabby Volatility Warrant Master Fund, Ltd. ⁽⁴⁾	516,488	1,172,414	646,612	9.99%

- (1) Consists of 273,590 shares of common stock held by the selling stockholder and 242,898 shares of common stock issuable upon exercise of outstanding Prefunded Warrants. Excludes (i) 442,516 shares of common stock issuable upon exercise of outstanding Prefunded Warrants and (ii) 1,172,414 Warrant Shares, each of which are not currently exercisable by virtue of the exercise limitations described in footnote (4).
- (2) The number of shares of common stock being offered are comprised of the Warrant Shares.
- (3) Assumes that the selling stockholder exercises all of the Warrants for cash and sells all shares of the Warrant Shares registered under this prospectus, but that the selling stockholder doesn't sell or otherwise dispose of any of the other shares of common stock that it beneficially owns as of the date hereof. Number of shares beneficially owned after this offering consists of 273,590 shares of common stock held by the selling stockholder and 373,022 shares of common stock issuable upon exercise of outstanding Prefunded Warrants. Excludes 312,392 shares of common stock issuable upon exercise of outstanding Prefunded Warrants which are not currently exercisable by virtue of the exercise limitations described in footnote (4).
- (4) The securities are held by Sabby Volatility Warrant Master Fund, Ltd. Sabby Volatility Warrant Master Fund, Ltd. is managed by Sabby Management, LLC. Sabby Management, LLC, in its capacity as the investment manager of Sabby Volatility Warrant Master Fund, Ltd., has the power to vote and the power to direct the disposition of all securities held by Sabby Volatility Warrant Master Fund, Ltd.. Hal Mintz is the Managing Member of Sabby Management, LLC. Each of Sabby Volatility Warrant Master Fund, Ltd.,

Sabby Management, LLC and Mr. Mintz disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein. In accordance with the terms of the Prefunded Warrants and the Warrants, the holder thereof will not be entitled to exercise any portion of any Prefunded Warrant or Warrant, which, upon giving effect to such exercise would cause the aggregate number of shares of the our common stock beneficially owned by the holder (together with its affiliates) to exceed 9.99% or 4.99%, respectively, of the number of shares of the common stock outstanding immediately after giving effect to the exercise.

Relationship with Selling Stockholder

As discussed in greater detail above under the section “Prospectus Summary—Financing,” on November 24, 2025, we entered into the Purchase Agreement with the selling stockholder named herein pursuant to which we sold shares of common stock, the Prefunded Warrants and the Warrants and agreed with the selling stockholder to file a registration statement to enable the resale of the Warrant Shares covered by this prospectus. None of the selling stockholder or any persons having control over such selling stockholder have held any position or office with us or our affiliates within the last three years or has had a material relationship with us or any of our predecessors or affiliates within the past three years, other than as a result of the ownership of our shares.

PLAN OF DISTRIBUTION

The selling stockholders may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- distributions to members, partners, stockholders or other equityholders of the selling stockholders;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales and settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest may become the selling stockholders for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders

reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the pre-funded warrants by payment of cash, however, we will receive the nominal exercise price of the pre-funded warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule, or another available exemption from the registration requirements under the Securities Act.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act (it being understood that the selling stockholders shall not be deemed to be underwriters solely as a result of their participation in this offering). Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(a)(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed with the selling stockholders to use commercially reasonable efforts to cause the registration statement of which this prospectus constitutes a part to become effective and to remain continuously effective until such time as the selling stockholder no longer owns any Warrants or Warrant Shares.

LEGAL MATTERS

Certain legal matters, including the validity of the shares of common stock offered by this prospectus, will be passed upon by Cooley LLP.

EXPERTS

The consolidated financial statements of Tempest Therapeutics, Inc. appearing in our Annual Report on Form 10-K for the year ended December 31, 2024 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of the registration statement on Form S-1 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

We maintain a website at www.tempesttx.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be 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.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (File No. 001-35890):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on [March 27, 2025](#), as amended by Amendment No. 1 to the Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on [April 30, 2025](#);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2025 filed with the SEC on [May 13, 2025](#);
- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2025 filed with the SEC on [August 11, 2025](#);
- our Quarterly Report on Form 10-Q for the quarter ended September 30, 2025 filed with the SEC on [November 5, 2025](#);
- our Current Reports on Form 8-K, filed with the SEC on [April 7, 2025](#), [April 9, 2025](#), [April 18, 2025](#), [April 28, 2025](#), [June 6, 2025](#), [June 11, 2025](#), [November 19, 2025](#) and [November 26, 2025](#), to the extent the information in such reports is filed and not furnished; and
- the description of our common stock set forth in our registration statement on [Form 8-A](#) (File No. 001-35890), filed with the SEC on April 25, 2013, including any amendments thereto or reports filed for the purposes of updating this description, including Exhibit 4.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 filed with the SEC on [March 27, 2025](#).

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering (excluding any information furnished rather than filed) shall be deemed to be incorporated by reference into this prospectus.

We will furnish without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any document incorporated by reference. Requests should be addressed to Tempest Therapeutics, Inc., Attn: Investor Relations, 2000 Sierra Point Parkway, Suite 400, Brisbane, California 94005; telephone: (415) 798-8589.

You also may access these filings on our website at www.tempesttx.com. We do not incorporate the information on our website into this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus).

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth an estimate of the fees and expenses payable by us in connection with the sale of the securities being registered.

	<u>Amount</u>
SEC registration fees	\$ 497
Accounting fees and expenses	50,000
Legal fees and expenses	30,000
Miscellaneous fees and expenses	4,503
Total	<u>\$ 85,000</u>

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our amended and restated certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with each of our current directors and officers. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity. We believe that these indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us.

Item 15. Recent Sales of Unregistered Securities

On November 24, 2025, we entered into the Purchase Agreement with the selling stockholder named herein, pursuant to which we agreed to issue and sell (i) in a registered direct offering an aggregate of 487,000 shares of our common stock, and prefunded warrants to purchase 685,414 shares of our common stock, pursuant to an effective shelf registration statement on Form S-3 (File No. 333-280918) and a related prospectus and prospectus supplement thereunder, and (ii) in a concurrent private placement, Warrants to purchase an aggregate of 1,172,414 shares of our common stock. The combined purchase price of each share of common stock and accompanying Warrant was \$3.625. The combined purchase price of each prefunded warrant and accompanying Warrant was \$3.624 (equal to the combined purchase price per Share and accompanying Warrant, minus \$0.001). The Warrants have an exercise price of \$3.50 per share and are exercisable immediately upon issuance for an eighteen month period following the date of effectiveness of this registration statement.

For additional information regarding the Purchase Agreement, refer to the summary included under Item 8.01 of our Current Report on Form 8-K filed with the SEC on November 26, 2025, which is incorporated by reference herein. H.C. Wainwright & Co., LLC acted as sole placement agent for this private placement. The Warrants described in this paragraph were not registered under the Securities Act at the time of issuance, and are the subject of this registration statement. The registrant relied on the exemption from the registration requirements of the Securities Act by virtue of Section 4(a)(2) thereof. The selling stockholder represented that it was acquiring the securities for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof, and appropriate legends were affixed to the securities.

Item 16. Exhibits

Exhibit Number	Description of Exhibit	Incorporation by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
2.1*	Agreement and Plan of Merger, dated as of March 29, 2021, by and among Tempest Therapeutics, Inc., Mars Merger Corp. and Tempest Therapeutics, Inc.	8-K	001-35890	2.1	3/29/2021	
3.1	Restated Certificate of Incorporation of the Registrant, as amended	10-Q	001-35890	3.1	5/15/2019	
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Company, as filed with the Secretary of State of the State of Delaware on June 24, 2021	8-K	001-35890	3.1	6/28/2021	
3.3	Certificate of Amendment to the Restated Certificate of Incorporation of the Company, as filed with the Secretary of State of the State of Delaware on June 25, 2021	8-K	001-35890	3.2	6/28/2021	
3.4	Certificate of Amendment to the Restated Certificate of Incorporation of the Company, as filed with the Secretary of State of the State of Delaware on April 4, 2025	8-K	001-35890	3.1	4/7/2025	
3.5	Certificate of Designation of Series A Junior Participating Preferred Stock filed with the Secretary of State of the State of Delaware on October 10, 2023	8-K	001-35890	3.1	10/11/2023	
3.6	Amended and Restated Bylaws of the Registrant	8-K	001-35890	3.1	9/24/2021	
4.1	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	10-K	001-35890	4.1	3/27/2025	
4.2	Form of Tempest Therapeutics, Inc. Warrant to Purchase Stock	10-K	001-35890	4.1	3/27/2025	
4.3	Rights Agreement, dated as of October 10, 2023, between Tempest Therapeutics, Inc. and Computershare Trust Company, N.A., which includes the form of Certificate of Designation as Exhibit A, the form of Right Certificate as Exhibit B and the Summary of Rights to Purchase Preferred Shares as Exhibit C	8-K	001-35890	4.1	10/11/2023	
4.4	Amendment No. 1, dated as of October 9, 2024, to Rights Agreement, dated as of October 10, 2023, by and between Tempest Therapeutics, Inc. and Computershare Trust Company, N.A., as rights agent	8-K	001-35890	4.1	10/10/2024	

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Exhibit Number	Description of Exhibit	Incorporation by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
4.5	Amendment No. 2, dated as of December 5, 2024, to Rights Agreement, dated as of October 10, 2023, as amended, by and between Tempest Therapeutics, Inc. and Computershare Trust Company, N.A., as rights agent	8-K	001-35890	4.1	12/06/2024	
4.6	Form of Securities Purchase Agreement between Tempest Therapeutics, Inc. and the purchaser party thereto	8-K	001-35890	4.1	11/26/2025	
4.7	Form of Tempest Therapeutics, Inc. Prefunded Warrant	8-K	001-35890	4.2	11/26/2025	
4.8	Form of Tempest Therapeutics, Inc. Common Warrant	8-K	001-35890	4.3	11/26/2025	
5.1	Opinion of Cooley LLP					X
10.1+	2011 Equity Incentive Plan	S-8	333-257727	10.2	7/7/2021	
10.2+	2017 Equity Incentive Plan	S-8	333-257727	10.1	7/7/2021	
10.3+	Form of Stock Option Agreement under the 2017 Equity Incentive Plan	10-K	001-35890	10.3	3/29/2022	
10.4+	Amended and Restated 2019 Equity Incentive Plan	8-K	001-35890	10.1	6/21/2022	
10.5+	Form of Option Grant Package under 2019 Equity Incentive Plan	10-Q	001-35890	10.7	8/12/2019	
10.6+	Form of Stock Option Agreement under the Sub Plan for French Residents under 2019 Equity Incentive Plan	10-K	001-35890	10.16	3/11/2020	
10.7+	Form of Inducement Nonqualified Stock Option Agreement subject to the terms of the 2019 Equity Incentive Plan	10-K	001-35890	10.17	3/11/2020	
10.8+	Amended and Restated 2019 Employee Stock Purchase Plan	8-K	001-35890	10.2	6/21/2022	
10.9+	Form of Indemnification Agreement	8-K	001-35890	10.1	7/07/2021	
10.10	Lease Agreement, dated January 24, 2022, by and between HCP Life Science REIT, Inc. and Tempest Therapeutics, Inc.	10-K	001-35890	10.24	3/22/2023	
10.11	Tempest Therapeutics, Inc. Amended and Restated 2023 Equity Incentive Plan	10-Q	001-35890	10.1	8/10/2023	
10.12	Form of Option Grant Package under the Amended and Restated 2023 Equity Incentive Plan	10-Q	001-35890	10.2	8/10/2023	
10.13	Tempest Therapeutics, Inc. 2023 Inducement Plan	10-Q	001-35890	10.3	8/10/2023	

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Exhibit Number	Description of Exhibit	Incorporation by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
10.14	Form of Option Grant Package under the 2023 Inducement Plan	10-Q	001-35890	10.4	8/10/2023	
10.15#	Roche Supply Agreement, dated October 7, 2024, by and between the Registrant and F. Hoffmann-La Roche Ltd.	10-K	001-35890	10.32	3/27/2025	
10.16+	Form of Consulting Agreement	10-Q	001-35890	10.2	8/11/2025	
10.17+	Separation Agreement, dated June 13, 2025, by and between Tempest Therapeutics, Inc. and Stephen Brady	10-Q	001-35890	10.3	8/11/2025	
10.18+	Separation Agreement, dated June 13, 2025, by and between Tempest Therapeutics, Inc. and Samuel Whiting	10-Q	001-35890	10.4	8/11/2025	
10.19+	Separation Agreement, dated June 13, 2025, by and between Tempest Therapeutics, Inc. and Nicholas Maestas	10-Q	001-35890	10.5	8/11/2025	
10.20+	Form of Success Bonus Agreement	10-Q	001-35890	10.6	8/11/2025	
10.21+	Amended and Restated Offer Letter, dated August 11, 2025, by and between Tempest Therapeutics, Inc. and Justin Trojanowski	10-Q	001-35890	10.7	8/11/2025	
10.22*	Asset Purchase Agreement, dated November 19, 2025, by and among Erigen LLC, Factor Bioscience Inc., and Tempest Therapeutics, Inc.	8-K	001-35890	10.1	11/19/2025	
10.23	Lock-Up Agreement, dated November 19, 2025, by and between Erigen LLC and Tempest Therapeutics, Inc.	8-K	001-35890	10.2	11/19/2025	
21.1	Subsidiaries of the Registrant	10-K/A	001-35890	21.1	4/1/2022	
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm					X
23.2	Consent of Cooley LLP (included in legal opinion filed as Exhibit 5.1)					X
24.1	Power of Attorney (included on signature page)					X
107	Filing Fee Table					X

* Exhibits and/or schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The registrant hereby undertakes to furnish supplementally copies of any of the omitted exhibits and schedules upon request by the SEC.

+ Indicates management contract or compensatory plan.

Pursuant to Item 601(b)(10)(iv) of Regulation S-K, certain portions of this exhibit (indicated by ***) have been omitted because the identified information is not material and is the type that the Registrant treats as private or confidential.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (a)(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 Securities and Exchange Commission, or 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;
 - (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;
- (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.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; 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 first use, 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 date of first use.
- (b) The undersigned registrant 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) 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 person of the registrant in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City Brisbane, State of California, on December 9, 2025.

TEMPEST THERAPEUTICS, INC.

By: /s/ Stephen Brady
Stephen Brady
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Stephen Brady and Nicholas Maestas, and each of them, as true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable Tempest Therapeutics, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of 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 and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully 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 below by the following persons in the capacities and on the dates indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Stephen Brady</u> Stephen Brady	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	December 9, 2025
<u>/s/ Nicholas Maestas</u> Nicholas Maestas	Chief Financial Officer <i>(Principal Financial Officer)</i>	December 9, 2025
<u>/s/ Justin Trojanowski</u> Justin Trojanowski	Corporate Controller, Treasurer <i>(Principal Accounting Officer)</i>	December 9, 2025
<u>/s/ Mike Raab</u> Mike Raab	Chairman of the Board	December 9, 2025
<u>/s/ Christine Pellizzari</u> Christine Pellizzari	Director	December 9, 2025
<u>/s/ Geoff Nichol</u> Geoff Nichol, M.B., Ch.B., M.B.A.	Director	December 9, 2025
<u>/s/ Ronit Simantov</u> Ronit Simantov, M.D.	Director	December 9, 2025



Jaime L. Chase
+1 202 728-7096
jchase@cooley.com

December 9, 2025

Tempest Therapeutics, Inc.
2000 Sierra Point Parkway, Suite 400
Brisbane, CA 94005

Ladies and Gentlemen:

We have acted as counsel to Tempest Therapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with the filing by the Company of a Registration Statement on Form S-1 (the "**Registration Statement**") with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Securities Act**"), covering the resale by the selling stockholder identified therein (the "**Selling Stockholder**") of up to 1,172,414 shares (the "**Warrant Shares**") of the Company's Common Stock, par value \$0.001 per share ("**Common Stock**"), issuable upon the exercise of outstanding warrants to purchase shares of Common Stock (the "**Warrants**"). The Warrants were issued pursuant to the Securities Purchase Agreement, dated November 24, 2025, by and between the Company and the Selling Stockholder (the "**Agreement**"). Each share of Common Stock includes a preferred share purchase right (each, a "**Right**," collectively, the "**Rights**") as set forth in the Rights Agreement (the "**Rights Plan**"), dated as of October 10, 2023, as amended, between the Company and Computershare Trust Company, N.A., as rights agent (the "**Rights Agent**").

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectus, the Company's certificate of incorporation and Bylaws, each as currently in effect, the Agreement, the Warrants and such other documents, records, certificates, memoranda and instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials, and the due authorization, execution and delivery of all documents by all persons other than the Company. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

With respect to our opinion concerning the Rights:

(i) Our opinion does not address the determination a court of competent jurisdiction may make regarding whether the Company's board of directors (the "**Board**") may be required to redeem or terminate, or take other action with respect to, the Rights or the Rights Plan in the future based on the facts and circumstances then existing.

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Tempest Therapeutics, Inc.
December 9, 2025
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(ii) Our opinion assumes that the Rights Plan has been duly authorized, executed and delivered by the Rights Agent and that members of the Board have acted in a manner consistent with their fiduciary duties as required under applicable law in adopting the Rights Plan. With respect to Rights associated with Shares to be issued in the future, our opinion assumes the Rights Plan has not been terminated by the Company or expired by its terms and the Rights have not expired or been redeemed or exchanged by the Company, in each case, prior to the issuance and resale of such Shares.

(iii) Our opinion addresses corporate procedures in connection with the issuance of the Rights associated with the Shares, and not any particular provision of the Rights or the Rights Plan. It should be understood that it is not settled whether the invalidity of any particular provision of a rights agreement or purchase rights issued thereunder would invalidate such rights in their entirety.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

With regard to our opinion as to the Warrant Shares, we express no opinion to the extent that future issuances of securities of the Company, antidilution adjustments to outstanding securities of the Company or other matters may cause the Warrants to be exercisable for more shares of Common Stock than the number available for issuance by the Company or that the consideration paid upon exercise of the Warrants is less than the par value per share of the Common Stock.

On the basis of the foregoing, and in reliance thereon and subject to the assumptions, exceptions, limitations and qualifications set forth herein, we are of the opinion that the Warrant Shares and any associated Rights, when issued upon exercise of the Warrants in accordance with the terms of the Warrants, will be validly issued, and the Warrant Shares will be fully paid and nonassessable.

This opinion is limited to the matters expressly set forth in this letter, and no opinion has been or should be implied, or may be inferred, beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof, and we have no obligation or responsibility to update or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

We consent to the reference to our firm under the caption "Legal Matters" in the prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. In giving such consents, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

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Tempest Therapeutics, Inc.
December 9, 2025
Page Three

Very truly yours,

COOLEY LLP

By: /s/ Jaime L. Chase
Jaime L. Chase

Cooley LLP 1299 Pennsylvania Avenue NW Suite 700 Washington, DC 20004-2400
t: +1 202 842 7800 f: +1 202 842 7899 cooley.com

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-1) and related Prospectus of Tempest Therapeutics, Inc. for the registration of 1,172,414 shares of its common stock and to the incorporation by reference therein of our report dated March 27, 2025, with respect to the consolidated financial statements of Tempest Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2024, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Chicago, Illinois
December 9, 2025

