

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

**FORM S-3**

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**PASITHEA THERAPEUTICS CORP.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**85-1591963**

(I.R.S. Employer  
Identification Number)

**1111 Lincoln Road, Suite 500  
Miami Beach, Florida 33139**

**(786) 977-3380**

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

**Tiago Reis Marques  
Chief Executive Officer**

**1111 Lincoln Road, Suite 500  
Miami Beach, Florida 33139**

**(786) 977-3380**

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

*Copies of all communications, including communications sent to the agent for service, to:*

**James O'Grady, Esq.  
Lowenstein Sandler LLP  
1251 Avenue of the Americas  
New York, New York 10020  
Telephone: (212) 262-6700**

**Approximate date of commencement of proposed sale to the public:** From time to time after this Registration Statement becomes effective.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer	<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 checked="" 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 which 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 Commission, acting pursuant to said Section 8(a), may determine.**



3,743,905 Shares of Common Stock

Issuable Upon Exercise of Outstanding Warrants

This prospectus relates to the resale of up to 3,743,905 shares of Pasithea Therapeutics Corp. (the “Company,” “we,” “our” or “us”) common stock, par value \$0.0001 per share, by the Selling Stockholders listed in this prospectus (the “Selling Stockholders”). The shares of common stock registered for resale pursuant to this prospectus consist of (i) 1,219,513 shares of common stock (the “Pre-Funded Warrant Shares”) issuable upon the exercise of pre-funded warrants (the “Pre-Funded Warrants”), (ii) 1,219,513 shares of common stock (the “Series A Warrant Shares”) issuable upon the exercise of Series A warrants (the “Series A Warrants”), (iii) 1,219,513 shares of common stock (the “Series B Warrant Shares”) issuable upon the exercise of Series B warrants (the “Series B Warrants”), and (iv) 85,366 shares of common stock (the “Placement Agent Warrant Shares” and together with the Pre-Funded Warrant Shares, Series A Warrant Shares and Series B Warrant Shares, the “Warrant Shares”) issuable upon the exercise of certain warrants issued to our placement agent (the “Placement Agent Warrants” and together with the Pre-Funded Warrants, Series A Warrants and Series B Warrants, the “Warrants”). The Warrants were issued to the Selling Stockholders in a private placement offering (the “Private Placement”) which closed on September 30, 2024.

For additional information about the Private Placement, see “*Private Placement*.”

The Pre-Funded Warrants have an exercise price of \$0.001, are immediately exercisable and expire when exercised in full. The Series A Warrants and the Series B Warrants have an exercise price of \$3.85 per share. The Series A Warrants are immediately exercisable until the five (5) year anniversary of the date of issuance. The Series B Warrants are immediately exercisable until the eighteen (18) month anniversary of the date of issuance. The Placement Agent Warrants have substantially the same terms as the Series A Warrants, except that the Placement Agent Warrants have an exercise price of \$5.125.

The Selling Stockholders may, from time to time, sell, transfer, assign or otherwise dispose of any or all of their shares of common stock or interests in their shares of common stock on any stock exchange, market or trading facility on which the shares of common stock 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. See “*Plan of Distribution*” in this prospectus for more information. We will not receive any proceeds from the resale or other disposition of the shares of common stock by the Selling Stockholders. However, we will receive the proceeds of any cash exercise of the Warrants. See “*Use of Proceeds*” beginning on page 9 and “*Plan of Distribution*” beginning on page 10 of this prospectus for more information.

Our common stock and certain of our outstanding warrants (the “Public Warrants”) are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbols “KTTA” and “KTTAW,” respectively. On October 4, 2024, the last reported sale price of our common stock and Public Warrants as reported on Nasdaq was \$5.34 and \$0.0361, respectively.

You should read this prospectus, together with additional information described under the headings “*Incorporation of Certain Information by Reference*” and “*Where You Can Find More Information*,” carefully before you invest in any of our securities.

**An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described in the section captioned “*Risk Factors*” contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the Securities and Exchange Commission, or the SEC, on March 29, 2024 and our other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus and the information 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 \_\_\_\_\_, 2024.

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This summary highlights information contained elsewhere in this prospectus and the documents incorporated by reference herein. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus carefully, including the section entitled “Risk Factors” beginning on page 3, our consolidated financial statements and the related notes and the other information incorporated by reference into this prospectus before making an investment decision.

This prospectus and the information incorporated by reference herein contain references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus and the information incorporated by reference herein, including logos, artwork, and other visual displays, may appear without the ® or ® symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks and trade names. We do not intend our use or display of other companies’ trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Other trademarks, trade names and service marks appearing in this prospectus and the documents incorporated by reference herein are the property of their respective owners.

## Corporate Overview

We are a clinical-stage biotechnology company primarily focused on the discovery, research and development of innovative treatments for CNS disorders and other diseases, including RASopathies.

Our primary operations, the Therapeutics segment, are focused on developing our lead therapeutic candidate, PAS-004, a next-generation macrocyclic mitogen-activated protein kinase, or MEK inhibitor that we believe may address the limitations and liabilities associated with existing drugs with a similar mechanism of action. PAS-004 is a small molecule allosteric inhibitor of MEK 1 and MEK 2 for potential use in the treatment of a range of RASopathies, including neurofibromatosis type 1 (“NF1”)-associated neurofibromas and a number of oncology indications, among others that we acquired from AlloMek Therapeutics, LLC in October 2022. In December 2023, the FDA cleared our IND for PAS-004 and we received a study may proceed letter from the FDA for our Phase 1 multicenter, open-label, dose escalation trial of PAS-004 in patients with MAPK pathway-driven advanced tumors with a documented RAS, NF1 or RAF mutation or patients who have failed BRAF/MEK inhibition. We are currently conducting the Phase 1 clinical trial at four clinical sites in the United States and plan to open an additional three sites in Eastern Europe in the fourth quarter of 2024. Our clinical development plan for PAS-004 is to begin a Phase 1 clinical trial in adult patients with NF1-associated plexiform and/or cutaneous neurofibromas followed by pediatric patients and ultimately seek FDA marketing approval in these patient populations.

Additionally, we have two programs that are in the discovery stage, which we believe address limitations in the treatment paradigm of the indications we plan to address with these programs, which are currently ALS for PAS-003 and schizophrenia for PAS-001. During the year ended December 31, 2023, we determined to cease further development of our PAS-002 program for multiple sclerosis due to several factors including the significant capital, resources and time required to develop the program, and the current and projected availability of effective treatment options for MS patients, among others.

## Corporate Information

We were formed as a Delaware corporation in May 2020.

“PasiThea” and our other common law trademarks, service marks or trade names appearing herein are the property of PasiThea Therapeutics Corp. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Our mailing address is 1111 Lincoln Road, Suite 500, Miami Beach, FL 33139 and our telephone number is (702) 514-4174. Our website address is [www.pasitheo.com](http://www.pasitheo.com).

Information contained in, or accessible through, our website does not constitute part of this prospectus or registration statement and inclusions of our website address in this prospectus or registration statement are inactive textual references only. You should not rely on any such information in making your decision whether to purchase our securities.

## THE OFFERING

<b>Common Stock to be offered by the Selling Stockholders</b>	Up to 3,743,905 shares of common stock, which are comprised of (i) 1,219,513 shares of common stock issuable upon exercise of the Pre-Funded Warrants, (ii) 1,219,513 shares of common stock issuable upon exercise of the Series A Warrants, (iii) 1,219,513 shares of common stock issuable upon exercise of the Series B Warrants, and (iv) 85,366 shares of common stock issuable upon exercise of the Placement Agent Warrants.
<b>Use of Proceeds</b>	We will not receive any proceeds from the shares of common stock offered by the Selling Stockholders pursuant to this prospectus. However, we will receive the proceeds of any cash exercise of the Warrants. We intend to use the net proceeds from any cash exercise of the Warrants for working capital and other general corporate purposes. Please see the section entitled see “Use of Proceeds” on page 9 of this prospectus for a more detailed discussion.
<b>National Securities Exchange Listing</b>	Our common stock and our Public Warrants are currently listed on Nasdaq under the symbols “KTTA” and “KTTAW,” respectively.
<b>Risk Factors</b>	An investment in our securities involves a high degree of risk. Please see the section entitled “Risk Factors” beginning on page 3 of this prospectus. In addition before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described in the section captioned “Risk Factors” contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 filed with the SEC on March 29, 2024, and other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus and the information incorporated by reference herein.

## RISK FACTORS

An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described in the section captioned “*Risk Factors*” contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 filed with the SEC on March 29, 2024, and our other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus and the information incorporated by reference herein. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could suffer materially. In such an event, the trading price of our shares of common stock could decline, and you might lose all or part of your investment.

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### CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Except for historical information, 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 of 1934, as amended (the “Exchange Act”). Forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as “may,” “can,” “anticipate,” “assume,” “should,” “indicate,” “would,” “believe,” “contemplate,” “expect,” “seek,” “estimate,” “continue,” “plan,” “point to,” “project,” “predict,” “could,” “intend,” “target,” “potential” and other similar words and expressions of the future.

There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our lack of operating history;
- the expectation that we will incur significant operating losses for the foreseeable future and will need significant additional capital;
- the period over which we estimate our existing cash and cash equivalents will be sufficient to fund our future operating expenses and capital expenditure requirements;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our plans to develop and commercialize our product candidates involves a lengthy and expensive process, with an uncertain outcome;
- the initiation, enrollment, timing, progress, results, and cost of our research and development programs and our current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available;
- the timing of interim data and final results from our clinical trials for PAS-004;
- the potential safety and efficacy of our product candidates and the therapeutic implications of clinical and preclinical data;
- the timing and focus of our future preclinical studies and clinical trials, and the reporting of data from those studies and trials;
- the size of the market opportunity for our future product candidates, including our estimates of the number of patients who suffer from the diseases we are targeting;
- the success of competing therapies that are or may become available;
- the beneficial characteristics, safety, efficacy and therapeutic effects of our future product candidates;
- our ability to obtain and maintain regulatory approval of our future product candidates;

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- our plans relating to the further development of our future product candidates, including additional disease states or indications we may pursue;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our dependence on third parties;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- our plans and ability to obtain or protect intellectual property rights, including extensions of patent terms where available and our ability to avoid infringing the intellectual property rights of others;
- our financial performance and sustaining an active trading market for our common stock and Public Warrants;
- our ability to restructure our operations to comply with any potential future changes in government regulation;
- disruptions to the development of our product candidates due to public health crises, such as epidemics and pandemics, including the COVID-19 global pandemic;
- the impact of global economic and market conditions and political developments on our business, including, among others, rising inflation and capital market disruptions, economic sanctions, bank failures, regional conflicts around the world, and economic slowdowns or recessions that may result from such developments which could harm our research and development efforts as well as the value of our common stock and our ability to access capital markets;

- business interruptions resulting from geopolitical actions and global events, including political instability, natural disasters and events of terrorism and wars such as the war between Ukraine and Russia, and the corresponding tensions created from such conflict between Russia, the United States and countries in Europe as well as other countries such as China, and the conflict between Hamas and Israel;
- our reliance on foreign contract research organizations (CROs) and contract manufacturing organizations (CMOs), including WuXi AppTec, that may be subject to U.S. legislation, including the proposed BIOSECURE bill, trade restrictions and other foreign regulatory requirements which could increase the cost or reduce the supply of material available to us, delay the procurement or supply of such material or have an adverse effect on our ability to secure significant commitments from governments to purchase our potential therapies; and
- other factors discussed in our most recent Annual Report on Form 10-K.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein, or those documents incorporated by reference, or risk factors that we are faced with that may cause our actual results to differ from those anticipated in our forward-looking statements. Please see “*Risk Factors*” for additional risks which could adversely impact our business and financial performance.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this prospectus, or the date of the document incorporated by reference into this prospectus. We have no obligation, and expressly disclaim any obligation, to update, revise or correct any of the forward-looking statements, whether as a result of new information, future events or otherwise. We have expressed our expectations, beliefs and projections in good faith, and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs, or projections will result or be achieved or accomplished.

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### PRIVATE PLACEMENT

On September 26, 2024, we entered into securities purchase agreement (the “Purchase Agreement”) with an institutional investor for the issuance and sale in a private placement (the “Private Placement”) of (i) Pre-Funded Warrants to purchase up to 1,219,513 shares of common stock, with an exercise price of \$0.001 per share, (ii) Series A Warrants to purchase up to 1,219,513 shares of common stock, with an exercise price of \$3.85 per share, and (iii) Series B Warrants to purchase up to 1,219,513 shares of common stock with an exercise price of \$3.85 per share. The Pre-Funded Warrants are immediately exercisable and expire when exercised in full. The Series A Warrants are exercisable immediately upon issuance and have a term of exercise equal to five (5) years from the date of issuance. The Series B Warrants are exercisable immediately upon issuance and have a term of exercise equal to eighteen (18) months from the date of issuance. The combined purchase price per Pre-Funded Warrant and accompanying Series A Warrant and Series B Warrant was \$4.099. The Private Placement closed on September 30, 2024.

In connection with the Private Placement, we entered into a registration rights agreement (the “Registration Rights Agreement”), dated as of September 26, 2024, with the investor, pursuant to which we agreed to prepare and file a registration statement registering the resale of the shares of common stock underlying the Pre-Funded Warrants, Series A Warrants and Series B Warrants no later than fifteen (15) days after the date of the Registration Rights Agreement, and to use our best efforts to have the registration statement declared effective as promptly as practical thereafter, and in any event no later than forty-five (45) days following the date of the Registration Rights Agreement (or ninety (90) days following the date of the Registration Rights Agreement in the event of a “full review” by the SEC). We have filed the registration statement of which this prospectus forms a part pursuant to the Registration Rights Agreement.

H.C. Wainwright & Co., LLC (the “Placement Agent”) served as our exclusive placement agent in connection with the Private Placement, pursuant to that certain engagement letter, dated as of September 6, 2024, as amended on September 26, 2024, between us and the Placement Agent (the “Engagement Letter”). Pursuant to the Engagement Letter, we paid the Placement Agent (i) a total cash fee equal to 7.0% of the aggregate gross proceeds of the Private Placement, (ii) a management fee of 1.0% of the aggregate gross proceeds of the Private Placement and (iii) a non-accountable expense allowance of \$50,000. In addition, in connection with the Private Placement, we issued the Placement Agent or its designees the Placement Agent Warrants.

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### SELLING STOCKHOLDERS

This prospectus covers the resale or other disposition by the Selling Stockholders identified in the table below of up to an aggregate 3,743,905 shares of our common stock issuable upon the exercise of the Warrants. The Selling Stockholders acquired their securities in the transactions described above under the heading “*Private Placement*.”

The Warrants held by the Selling Stockholders contain limitations which prevent the holder from exercising such Warrants if such exercise would cause the Selling Stockholder, together with certain related parties, to beneficially own a number of shares of common stock which would exceed 4.99% (or, at the election of the holder, 9.99%) of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination, shares of common stock issuable upon exercise of the Warrants which have not been exercised.

The table below sets forth, as of October 1, 2024, the following information regarding the Selling Stockholders:

- the names of the Selling Stockholders;
- the number of shares of common stock owned by the Selling Stockholders prior to this offering, without regard to any beneficial ownership limitations contained in the Warrants;
- the number of shares of common stock to be offered by the Selling Stockholders in this offering;
- the number of shares of common stock to be owned by the Selling Stockholders assuming the sale of all of the shares of common stock covered by this prospectus; and
- the percentage of our issued and outstanding shares of common stock to be owned by Selling Stockholders assuming the sale of all of the shares of common stock covered by this prospectus based on the number of shares of common stock issued and outstanding as of October 1, 2024.

Except as described above, the number of shares of common stock beneficially owned by the Selling Stockholder has been determined in accordance with Rule 13d-3 under the Exchange Act and includes, for such purpose, shares of common stock that the Selling Stockholder has the right to acquire within 60 days of October 1, 2024.

All information with respect to the common stock ownership of the Selling Stockholders has been furnished by or on behalf of the Selling Stockholders. We believe,

based on information supplied by the Selling Stockholders, that except as may otherwise be indicated in the footnotes to the table below, the Selling Stockholder has sole voting and dispositive power with respect to the shares of common stock reported as beneficially owned by the Selling Stockholders. Because the Selling Stockholders identified in the table may sell some or all of the shares of common stock beneficially owned by them and covered by this prospectus, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares of common stock, no estimate can be given as to the number of shares of common stock available for resale hereby that will be held by the Selling Stockholders upon termination of this offering. In addition, the Selling Stockholders may have sold, assigned, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, the shares of common stock they beneficially own in transactions exempt from the registration requirements of the Securities Act after the date on which they provided the information set forth in the table below. We have, therefore, assumed for the purposes of the following table, that the Selling Stockholders will sell all of the shares of common stock owned beneficially by it that are covered by this prospectus, but will not sell any other shares of common stock that they presently own. Except as set forth below, the Selling Stockholders have not held any position or office, or have otherwise had a material relationship, with us or any of our subsidiaries within the past three years other than as a result of the ownership of our shares of common stock or other securities.

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<b>Name of Selling Stockholders</b>	<b>Shares Owned prior to Offering</b>	<b>Shares Offered by this Prospectus</b>	<b>Shares Owned after Offering</b>	<b>Percentage of Shares Beneficially Owned after Offering (1)</b>
Armistice Capital, LLC (2)	3,779,968	3,658,539(3)	121,429	2.6%
Charles Worthman (4)	854	854	-	-
Craig Schwabe (4)	2,881	2,881	-	-
Michael Vasinkevich (4)	54,741	54,741	-	-
Noam Rubinstein (4)	26,890	26,890	-	-

- (1) Percentages are based on 1,044,914 shares of common stock outstanding as of October 1, 2024
- (2) The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the "Master Fund") and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC ("Armistice Capital"), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The number of shares listed in the second and fourth columns are based on the number of shares of warrants held by the Master Fund, assuming exercise in full of the warrants without regard to any limitations on exercise, but the percentage set forth in the fifth column is limited by beneficial ownership blockers applicable to such warrants. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
- (3) Contains (i) Pre-Funded Warrants to purchase up to 1,219,513 shares of common stock, subject to a beneficial ownership blocker of 9.99%, (ii) Series A Warrants to purchase up to 1,219,513 shares of common stock, subject to a beneficial ownership blocker of 4.99%, and (iii) Series B Warrants to purchase up to 1,219,513 shares of common stock, subject to a beneficial ownership blocker of 4.99%.
- (4) Each of the Selling Stockholders is affiliated with H.C. Wainwright & Co., LLC, a registered broker dealer with a registered address of H.C. Wainwright & Co., LLC, 430 Park Ave, 3rd Floor, New York, NY 10022, and has sole voting and dispositive power over the securities held. The Selling Stockholder acquired the Placement Agent Warrants in the ordinary course of business and, at the time the Placement Agent Warrants were acquired, the Selling Stockholder had no agreement or understanding, directly or indirectly, with any person to distribute such securities. H.C. Wainwright & Co., LLC served as our exclusive placement agent in connection with the Private Placement, for which it received compensation.

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#### USE OF PROCEEDS

The common stock to be offered and sold using this prospectus will be offered and sold by the Selling Stockholders named in this prospectus. Accordingly, we will not receive any proceeds from any sale of shares of common stock in this offering. We will pay all of the fees and expenses incurred by us in connection with this registration. However, we will receive the proceeds of any cash exercise of the Warrants. We intend to use the net proceeds from any cash exercise of the Warrants for working capital and other general corporate purposes.

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#### PLAN OF DISTRIBUTION

Each Selling Stockholder of the securities and any of their pledgees, donees, assignees, transferees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on The Nasdaq Capital Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities 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;
- settlement of short sales;

- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities 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 securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities 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 create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

Our common stock is quoted on Nasdaq under the symbol “KTTA.”

## DESCRIPTION OF SECURITIES

The following summary of the rights of our capital stock is not complete and is subject to and qualified in its entirety by reference to our Second Amended and Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”) and Second Amended and Restated Bylaws (the “Bylaws”), copies of which are filed as exhibits to the registration statement of which this prospectus forms a part.

### General

We are authorized to issue an aggregate of 105,000,000 shares. The authorized capital stock is divided into 100,000,000 shares of common stock having a par value of \$0.0001 per share and 5,000,000 shares of preferred stock having a par value of \$0.0001 per share.

### Common Stock

All shares of our common stock are one and the same class, identical in all respects and have equal rights, powers and privileges.

*Voting.* Except as otherwise provided by law or by the resolution or resolutions providing for the issue of any series of preferred stock, the holders of outstanding shares of common stock have the exclusive right to vote for the election and removal of directors and for all other purposes. On each matter on which holders of common stock are entitled to vote, each outstanding share of such common stock is entitled to one vote.

*Dividends.* Subject to the rights of the holders of preferred stock, holders of shares of common stock are entitled to receive such dividends and distributions and other distributions of our cash, stock or property when, as and if declared by our board of directors (the “Board”).

*Liquidation.* Subject to the rights of the holders of preferred stock, shares of common stock are entitled to receive our assets and funds available for distribution in the event of any liquidation, dissolution or winding up of the affairs of us, whether voluntary or involuntary.

*Rights and Preferences.* Holders of our common stock will have no preemptive, conversion or subscription rights, and there will be no redemption or sinking funds provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of share of any series of our preferred stock that we may designate and issue in the future.

### **Preferred Stock**

Our Board has the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more classes or series. Our Board is able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations or restrictions thereof, including, without limitation:

- the designation of the series;
- the number of shares of the series, which our Board may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares then outstanding);
- whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;
- the dates at which dividends, if any, will be payable;
- the redemption or repurchase rights and price or prices, if any, for shares of the series;
- the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;
- the amounts payable on, and the preferences, if any, of shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of our affairs;

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- whether the shares of the series will be convertible into shares of any other class or series, or any other security, of us or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;
- restrictions on the issuance of shares of the same series or of any other class or series;
- the voting rights, if any, of the holders of the series; and
- any other powers, preferences and relative, participating, optional or other special rights of each series of preferred stock, and any qualifications, limitations or restrictions thereof, all as may be determined from time to time by our Board and stated in the resolution or resolutions providing for the issuance of such preferred stock.

We could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of the holders of our common stock might believe to be in their best interests or in which the holders of our common stock might receive a premium over the market price of the shares of our common stock. Additionally, the issuance of preferred stock may adversely affect the rights of holders of our common stock by restricting dividends on the common stock, diluting the voting power of the common stock or subordinating the liquidation rights of the common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

### **Anti-Takeover Effects of Delaware law and Our Certificate of Incorporation and Bylaws**

Our Certificate of Incorporation, Bylaws and the Delaware General Corporation Law (the "DGCL") contain provisions that are intended to enhance the likelihood of continuity and stability in the composition of our Board. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile or abusive change of control and enhance the ability of our Board to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an anti-takeover effect and may delay, deter or prevent a merger or acquisition of our company by means of a tender offer, a proxy contest or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

#### ***Section 203 of the Delaware General Corporation Law***

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholder, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

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In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;



- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

***Potential Effects of Authorized but Unissued Stock***

Pursuant to our Certificate of Incorporation, we have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our Board to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, our Board has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the DGCL and subject to any limitations set forth in our Certificate of Incorporation. The purpose of authorizing our Board to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is VStock Transfer, LLC.

**National Securities Exchange Listing**

Our common stock is currently listed on Nasdaq under the symbol “KTTA.”

**LEGAL MATTERS**

The validity of the shares of common stock offered hereby will be passed upon for us by Lowenstein Sandler LLP, New York, New York.

**EXPERTS**

The audited annual consolidated financial statements of Pasithea Therapeutics Corp. incorporated by reference in this prospectus and elsewhere in the registration statement have been incorporated by reference in reliance upon the report of Marcum LLP, independent registered public accounting firm, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, upon the authority of said firm as experts in accounting and auditing. The 2023 and 2022 audited annual consolidated financial statements of Pasithea Therapeutics Corp. as of and for the years ended December 31, 2023 and 2022, have been audited by Marcum LLP, independent registered public accounting firm.

**WHERE YOU CAN FIND MORE INFORMATION**

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules and undertakings set forth in the registration statement. For further information pertaining to us and our securities, reference is made to our SEC filings and the registration statement and the exhibits and schedules to the registration statement. Statements contained in this prospectus as to the contents or provisions of any documents referred to in this prospectus are not necessarily complete, and in each instance where a copy of the document has been filed as an exhibit to the registration statement, reference is made to the exhibit for a more complete description of the matters involved.

In addition, registration statements and certain other filings made with the SEC electronically are publicly available through the SEC’s web site at <http://www.sec.gov>. The registration statement, including all exhibits and amendments to the registration statement, has been filed electronically with the SEC.

We are subject to the information and periodic reporting requirements of the Exchange Act, as amended, and, in accordance with such requirements, will file periodic reports, proxy statements, and other information with the SEC. These periodic reports, proxy statements, and other information will be available for inspection and copying at the web site of the SEC referred to above. We also maintain a website at <https://www.pasithea.com>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The SEC allows us to “incorporate by reference” information that we file with it into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement.

We incorporate by reference the documents listed below that we have previously filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on [March 29, 2024](#);
- our Quarterly Report on Form 10-Q for the quarters ended March 31, 2024 and June 30, 2024, as filed with the SEC on [May 14, 2024](#) and [August 13, 2024](#), respectively;
- our Current Reports on Form 8-K as filed with the SEC on [January 2, 2024](#), [January 18, 2024](#), [May 14, 2024](#), [June 26, 2024](#) and [September 30, 2024](#) (other than any portions thereof deemed furnished and not filed); and
- the description of our common stock and warrants contained in our Registration Statement on Form 8-A filed with the SEC on [September 13, 2021](#), including any amendments and reports filed for the purpose of updating such description, including the description of our common stock included as [Exhibit 4.7](#) to our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on [March 29, 2024](#).

All reports and other documents that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement, and after the date of this prospectus but before the termination of the offering of the securities hereunder will also be considered to be incorporated by reference into this prospectus from the date of the filing of these reports and documents, and will supersede the information herein; provided, however, that all reports, exhibits and other information that we “furnish” to the SEC will not be considered incorporated by reference into this prospectus. We undertake to provide without charge to each person (including any beneficial owner) who receives a copy of this prospectus, upon written or oral request, a copy of all of the preceding documents that are incorporated by reference (other than exhibits, unless the exhibits are specifically incorporated by reference into these documents). You may request a copy of these materials in the manner set forth under the heading “*Where You Can Find More Information*,” above.

We will provide you without charge, upon your oral or written request, with a copy of any or all reports, proxy statements and other documents we file with the SEC, as well as any or all of the documents incorporated by reference in this prospectus or the registration statement (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into such documents). Requests for such copies should be directed to:

Pasithea Therapeutics Corp.  
Atten: Tiago Reis Marques  
Chief Executive Officer  
1111 Lincoln Road, Suite 500  
Miami Beach, Florida 33139  
Telephone: (786) 977-3380

**3,743,905 Shares of Common Stock**

**Issuable Upon Exercise of Outstanding Warrants**



**PROSPECTUS**

**, 2024**

#### Item 14. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the SEC registration fee.

	<u>Amount</u>
SEC Registration Fee	\$ 2,854.50
Legal Fees and Expenses	50,000
Accounting Fees and Expenses	25,000
Transfer Agent and Registrar fees and expenses	5,000
Miscellaneous Expenses	1,145.50
Total expenses	<u>\$ 84,000</u>

#### Item 15. Indemnification of Directors and Officers.

Section 102 of the DGCL permits a corporation to eliminate the personal liability of directors and officers of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director or officer, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, obtained an improper personal benefit, in the case of a director, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law, or in the case of an officer, a breach of fiduciary duty in any action by or in the right of the corporation. Our Certificate of Incorporation provides that no director or officer shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director or officer to the fullest extent permitted by the DGCL.

Section 145 of the DGCL 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, ending 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.

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Our Certificate of Incorporation and Bylaws provide that we will indemnify each person who was or is a party to or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative by reason of the fact that the person is or was a director, officer, employee or agent of us, or is or was serving at the request of us as a director, officer, employee or agent of 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. Our Certificate of Incorporation and Bylaws provide that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was a director or officer, or is or was serving 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, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that 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 us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any other company or enterprise to which the person provides services at our request.

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

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

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#### Item 16. Exhibits

<u>Exhibit No.</u>	<u>Description</u>
3.1	<a href="#">Second Amended and Restated Certificate of Incorporation of Pasithea Therapeutics Corp., dated December 29, 2023. (incorporated by reference to Exhibit 3.1 of the Company's Form 8-K, filed with the Commission on January 2, 2024).</a>
3.2	<a href="#">Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Pasithea Therapeutics Corp., dated December 29, 2023 (incorporated by reference to Exhibit 3.4 of the Company's Form 8-K, filed with the Commission on January 2, 2024).</a>
3.3	<a href="#">Second Amended and Restated Bylaws of Pasithea Therapeutics Corp., dated December 29, 2023. (incorporated by reference to Exhibit 3.2 of the Company's Form 8-K, filed with the Commission on January 2, 2024).</a>

4.1	<a href="#">Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the SEC on September 30, 2024).</a>
4.2	<a href="#">Form of Warrant (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed with the SEC on September 30, 2024).</a>
4.3	<a href="#">Form of Placement Agent Warrant (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K filed with the SEC on September 30, 2024).</a>
5.1*	<a href="#">Opinion of Lowenstein Sandler LLP.</a>
10.1	<a href="#">Form of Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on September 30, 2024).</a>
10.2	<a href="#">Form of Registration Rights Agreement (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed with the SEC on September 30, 2024).</a>
23.1*	<a href="#">Consent of Independent Registered Public Accounting Firm – Marcum LLP.</a>
23.2*	<a href="#">Consent of Lowenstein Sandler LLP (Included in Exhibit 5.1).</a>
24.1*	<a href="#">Power of Attorney (included in the signature page)</a>
107*	<a href="#">Filing Fee Table.</a>

\* Filed herewith.

#### Item 17. Undertakings

The undersigned registrant hereby undertakes:

- 1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - a. To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
  - b. 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;
  - c. 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 (1)(a), (1)(b) and (1)(c) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- 2) 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.
- 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 of 1933 to any purchaser:
  - a. If the registrant is relying on Rule 430B:
    - 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.

- b. If the registrant is subject to Rule 430C, 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 a 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.
- 5) 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 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 registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- Any preliminary prospectus or prospectus of the registrant relating to the offering required to be filed pursuant to Rule 424;
  - 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;
  - The portion of any free writing prospectus relating to the offering containing material information about the registrant or its securities provided by or on behalf of the registrant; and
  - Any other communication that is an offer in the offering made by a registrant to the purchaser.
- 6) That, for the purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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.
- 7) 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 forgoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the 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 Miami Beach, State of Florida, on October 7, 2024.

### PASITHEA THERAPEUTICS CORP.

By: /s/ Dr. Tiago Reis Marques  
 Dr. Tiago Reis Marques  
 Chief Executive Officer and Director

## POWER OF ATTORNEY AND SIGNATURES

Each person whose signature appears below constitutes and appoints Tiago Reis Marques and Daniel Schneiderman and each of them singly, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including, without limitation, post-effective amendments) to this registration statement and any and all additional registration statements pursuant to Rule 462(b) of the Securities Act and to file the same, with all exhibits thereto and all other documents in connection therewith, with the SEC, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or their, his or her substitute or substitutes 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 by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Dr. Tiago Reis Marques</u> Dr. Tiago Reis Marques	Chief Executive Officer and Director (Principal Executive Officer)	October 7, 2024
<u>/s/ Daniel Schneiderman</u> Daniel Schneiderman	Chief Financial Officer (Principal Financial and Accounting Officer)	October 7, 2024
<u>/s/ Prof. Lawrence Steinman</u> Prof. Lawrence Steinman	Director	October 7, 2024
<u>/s/ Simon Dumesnil</u> Simon Dumesnil	Director	October 7, 2024
<u>/s/ Dr. Emer Leahy</u> Dr. Emer Leahy	Director	October 7, 2024

*/s/ Alfred Novak*  
Alfred Novak

Director

October 7, 2024



October 7, 2024

Pasithea Therapeutics Corp.  
1111 Lincoln Road, Suite 500  
Miami Beach, Florida 33139

Ladies and Gentlemen:

We have acted as counsel to Pasithea Therapeutics Corp., a Delaware corporation (the “**Company**”), in connection with the Company’s Registration Statement on Form S-3 (the “**Registration Statement**”) under the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement relates to the offer and sale by the selling stockholders identified therein of up to 3,743,905 shares of the Company’s common stock, par value \$0.0001 per share (the “**Common Stock**”). Such shares of Common Stock consist of: (i) 1,219,513 shares of Common Stock (the “**Pre-Funded Warrant Shares**”) issuable upon the exercise of pre-funded warrants (the “**Pre-Funded Warrants**”); (ii) 1,219,513 shares of Common Stock (the “**Series A Warrant Shares**”) issuable upon the exercise of series A warrants (the “**Series A Warrants**”); (iii) 1,219,513 shares of Common Stock (the “**Series B Warrant Shares**”) issuable upon the exercise of series B warrants (the “**Series B Warrants**”); and (iv) 85,366 shares of Common Stock (the “**PA Warrant Shares**”) and together with the Pre-Funded Warrant Shares, the Series A Warrant Shares and the Series B Warrant Shares, the “**Warrant Shares**”) issuable upon the exercise of placement agent warrants (the “**PA Warrants**”) and together with the Pre-Funded Warrants, the Series A Warrants and the Series B Warrants, the “**Warrants**”).

In connection with rendering this opinion, we have examined the Second Amended and Restated Certificate of Incorporation, as amended, the Second Amended and Restated Bylaws of the Company, the forms of the Warrants, such other corporate records, agreements, documents and instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and we have made such inquiries of such officers and representatives, as we have deemed necessary or appropriate for the purposes of this opinion.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity of original documents of all documents submitted to us as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to these opinions that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that when issued in accordance with the terms of the Warrants, the Warrant Shares will be duly authorized, validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to the corporate laws 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 hereby consent to the filing of a copy of this opinion letter as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended.

Very truly yours,

/s/ Lowenstein Sandler LLP  
Lowenstein Sandler LLP

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NEW YORK

PALO ALTO

NEW JERSEY

UTAH

WASHINGTON, D.C.

Lowenstein Sandler LLP

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Pasithea Therapeutics Corp. on Form S-3 of our report dated March 28, 2024, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of Pasithea Therapeutics Corp. as of December 31, 2023 and 2022 and for the years ended appearing in the Annual Report on Form 10-K of Pasithea Therapeutics Corp. for the year ended December 31, 2023. We also consent to the reference to our firm under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

*/s/ Marcum LLP*

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Marcum LLP

New Haven, CT

October 7, 2024



## Calculation of Filing Fee Tables

**Form S-3**  
(Form Type)

**Pasithea Therapeutics Corp.**  
(Exact Name of Registrant as Specified in its Charter)

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit (2)	Maximum Aggregate Offering Price (1)	Fee Rate	Amount of Registration Fee
<b>Fees to Be Paid</b>	Equity	Common Stock, par value \$0.0001 per share	Other	3,743,905	\$ 4.98	\$ 18,644,646.90	0.0001531	\$ 2,854.50
		<b>Total Offering Amounts</b>						\$ 2,854.50
		<b>Total Fees Previously Paid</b>						\$ 0
		<b>Total Fee Offsets</b>						\$ 0
		<b>Net Fee Due</b>						\$ 2,854.50

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), there is also being registered hereby such indeterminate number of additional common shares as may be issued or issuable because of stock splits, stock dividends stock distributions, and similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act based on a per share price of \$4.98, the average of the high \$5.36 and low \$4.60 reported sales prices of the registrant's common stock on the Nasdaq Capital Market on October 1, 2024.