

PROSPECTUS SUPPLEMENT

(To Prospectus Supplement dated November 26, 2024, to Prospectus dated April 19, 2023)



Pasithea Therapeutics Corp.

Up to \$2,151,000
Common Stock

This prospectus supplement amends and supplements the information in the prospectus, dated April 19, 2023, filed as a part of our registration statement on Form S-3 (File No. 333-271010) (the "Registration Statement"), as supplemented by our prospectus supplement, dated November 26, 2024 (collectively, the "Prior Prospectus"), relating to the offering, issuance and sale by us of our common stock, par value \$0.0001 per share ("Common Stock"), from time to time that may be issued and sold under the at the market offering agreement (the "Sales Agreement"), dated November 26, 2024, by and between us and H.C. Wainwright & Co., LLC ("Wainwright"), acting as sales agent or principal. This prospectus supplement should be read in conjunction with the Prior Prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prior Prospectus. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the Prior Prospectus, and any future amendments or supplements thereto.

We are filing this prospectus supplement to amend the Prior Prospectus to update the maximum amount of shares we are eligible to sell under our Registration Statement pursuant to General Instruction I.B.6 of Form S-3 ("General Instruction I.B.6"). As a result of these limitations, the current public float of our Common Stock, and the terms of the Sales Agreement, we may offer and sell shares of our Common Stock having an aggregate offering price of up to \$4,227,669 from time to time through Wainwright, which includes the shares of Common Stock having an aggregate sales price of approximately \$2,075,688 that were sold pursuant to the Prior Prospectus and Sales Agreement during the twelve (12) calendar months preceding the date of this prospectus supplement (the "Prior Sales"). As a result of the Prior Sales and the limitations imposed by General Instruction I.B.6, as of the date of this prospectus supplement, we are eligible to offer and sell additional shares of our Common Stock having an aggregate offering price of up to \$2,151,981 from time to time through Wainwright pursuant to the Sales Agreement. We are registering the offer and sale of shares of our Common Stock having an aggregate offering price of up to \$2,151,000 pursuant to this prospectus supplement.

As of the date of this prospectus supplement, the aggregate market value of our outstanding Common Stock held by non-affiliates (the "public float"), was approximately \$12,683,007, which was calculated based on 7,331,218 shares of our outstanding Common Stock held by non-affiliates and a price of \$1.73 per share, the closing price of our Common Stock on the Nasdaq Capital Market on April 25, 2025. During the twelve (12) calendar months prior to and including the date of this prospectus supplement, we sold securities with an aggregate market value of approximately \$2,075,688 pursuant to General Instruction I.B.6 and the Sales Agreement. Pursuant to General Instruction I.B.6, in no event will we sell securities in a public primary offering with a value exceeding one-third of our public float in any 12-month calendar period so long as our public float remains below \$75.0 million. In the event that we become eligible to sell additional amounts under the Sales Agreement and in accordance with General Instruction I.B.6, we will file another prospectus supplement prior to making such additional sales.

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933, as amended (the "Securities Act"), and a "smaller reporting company" as defined under Rule 405 of the Securities Act, and as such, we have elected to comply with certain reduced public company reporting requirements. See "Prospectus Supplement Summary—Implications of Being an Emerging Growth Company and a Smaller Reporting Company" on page S-2 of the Prior Prospectus.

Our Common Stock is listed on the Nasdaq Capital Market under the symbol "KTTA." On June 18, 2025, the last reported sale price of our Common Stock on the Nasdaq Capital Market was \$0.7746 per share.

Investing in the offered securities involves a high degree of risk. Before buying any shares, you should read the discussion of material risks of investing in our Common Stock in "Risk Factors" beginning on page S-4 of the Prior Prospectus, and in the risks discussed under similar headings in the documents incorporated by reference in this prospectus supplement and the Prior Prospectus, as they may be amended, updated or modified periodically in our reports filed with the Securities and Exchange Commission.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS SUPPLEMENT AND THE ACCOMPANYING PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

H.C. Wainwright & Co.

The date of this prospectus supplement is June 20, 2025
