

**PROSPECTUS SUPPLEMENT**

(To Sales Agreement Prospectus dated July 29, 2024)



**Up to \$13,390,000  
Common Stock**

This Prospectus Supplement supplements the sales agreement prospectus, dated July 29, 2024 (the “ATM Prospectus”), relating to the offer and sale of shares of our common stock, \$0.001 par value per share (“common stock”), having an aggregate offering price of up to \$14,658,742 pursuant to the terms of an At The Market Offering Agreement (the “ATM Agreement”) dated July 19, 2024, with H.C. Wainwright & Co., LLC (“H.C. Wainwright”). Through the date hereof, we have sold an aggregate of \$2,772,114 of shares of our common stock through H.C. Wainwright under the ATM Agreement. This Prospectus Supplement should be read in conjunction with the ATM Prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the ATM Prospectus. This Prospectus Supplement is not complete without, and may only be delivered or utilized in connection with, the ATM Prospectus, and any future amendments or supplements thereto.

We are subject to the offering limitations of General Instruction I.B.6 of Form S-3. As of the date of this Prospectus Supplement, the aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$48,487,620, which was calculated based on 7,402,690 shares of our outstanding common stock held by non-affiliates and a price of \$6.55 per share, the closing price of our common stock on June 24, 2024, which is the highest closing sale price of our common stock on the Nasdaq Capital Market within the prior 60 days. During the 12 calendar months prior to, and including, the date of this Prospectus Supplement, we have sold \$2,772,114 of securities pursuant to General Instruction I.B.6 of Form S-3. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in public primary offerings on Form S-3 with a value exceeding one-third of our public float (as defined by General Instruction I.B.6) in any 12-calendar month period so long as our public float remains below \$75.0 million.

We are filing this Prospectus Supplement to amend the ATM Prospectus to increase the maximum amount of shares that we are eligible to sell pursuant to the ATM Agreement under General Instruction I.B.6. As a result of these limitations, we may currently only offer and sell shares of our common stock having an aggregate offering price of up to \$13,390,425 pursuant to the ATM Agreement. Pursuant to this Prospectus Supplement, we are registering the offer and sale of up to \$13,390,000 of shares of our common stock. However, in the event that our public float increases or decreases, we may sell securities in public primary offerings on Form S-3 with a value up to one-third of our public float, in each case calculated pursuant to General Instruction I.B.6 and subject to the terms of the ATM Agreement. In the event that our public float increases above \$75.0 million, we will no longer be subject to the limitations of General Instruction I.B.6 of Form S-3.

Our common stock trades on the Nasdaq Capital Market under the symbol “TTOO.” On August 22, 2024, the last reported sale price of our common stock on the Nasdaq Capital Market was \$3.50 per share.

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**INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE THE “RISK FACTORS” BEGINNING ON PAGE S-8 OF THE ATM PROSPECTUS AND IN THE DOCUMENTS INCORPORATED BY REFERENCE IN THE PROSPECTUS CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR COMMON STOCK.**

**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 or the accompanying prospectus. Any representation to the contrary is a criminal offense.**

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**H.C. Wainwright & Co.**

**The date of this prospectus supplement is August 23, 2024.**