Pursuant to Rule 424(b)(5)
Registration No. 333-294170

Prospectus Supplement
(To Prospectus dated March 10, 2026)

8,333,334 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 1,190,476 Shares of Common Stock

We are offering 8,333,334 shares of our common stock and, in lieu of common stock, to certain investors who so choose, pre-funded warrants to purchase 1,190,476 shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus. The purchase price of each pre-funded warrant will equal the price per share at which the shares of our common stock are being sold to the public in this offering, minus $0.001, which is the exercise price of each pre-funded warrant per share. The pre-funded warrants do not expire, and each pre-funded warrant will be exercisable at any time after the date of issuance of such pre-funded warrant, subject to a beneficial ownership limitation described herein. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon the exercise of such pre-funded warrants.

Our common stock is listed on The Nasdaq Global Market under the symbol "RAPP." On October 27, 2026, the last reported sale price of our common stock on The Nasdaq Global Market was $27.54 per share. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for a listing of the pre-funded warrants on the Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

Concurrently with this offering, we are offering, pursuant to a separate prospectus supplement, 2.25% convertible senior notes due 2032 (the "convertible notes"), in an aggregate principal amount of $150,000,000, plus up to an additional $22,500,000 aggregate principal amount of convertible notes that the underwriters of the concurrent convertible notes offering have the option to purchase from us (the "concurrent convertible notes offering"). The consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, and the consummation of the concurrent convertible notes offering is not contingent on the consummation of this offering. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any securities being offered in the concurrent convertible notes offering.

Investing in shares of our common stock involves significant risks. See the section titled "Risk Factors" beginning on page S-12 of this prospectus supplement and page 1 of the accompanying prospectus, and in the documents that are incorporated by reference herein. You should read the entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference herein or therein, carefully before you make your investment decision.

We are an "emerging growth company" and "smaller reporting company" under the U.S. federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus supplement and future filings. See "Prospectus Supplement Summary—Implications of Being an Emerging Growth Company and Smaller Reporting Company."

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

	Per Share	Per pre-funded warrant	Total
Public offering price	*$21.00*	*20.999*	*$199,998,820*
Underwriting discounts and commissions (1)	*$1.26*	*1.260*	*$12,000,001*
Proceeds, before expenses, to Rapport Therapeutics, Inc. (2)	*$19.74*	*19.739*	*$187,998,819*

(1) See the section titled "Underwriters" for additional information regarding compensation payable to the underwriters.

(2) Total gross proceeds from this offering and the concurrent private placement, if consummated, are approximately $230 million. Such proceeds less underwriting discounts and commissions, placement agent fees and estimated offering and private placement expenses are approximately $215.7 million.

On October 28, 2026 we entered into a securities purchase agreement with a certain investor, to issue and sell to such investor shares of our common stock in a concurrent private placement exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act") at a per share price equal to the public offering price of our common stock in this offering (which transaction we refer to as the concurrent private placement). The consummation of the concurrent private placement is contingent and conditioned upon consummation of this offering and the satisfaction of certain other customary conditions. However, the consummation of this offering is not contingent on the consummation of the concurrent private placement. Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. are acting as placement agents in connection with the concurrent private placement and will receive a placement agent fee equal to 6% of the total purchase price of the private placement shares.

We expect that delivery of the shares and the pre-funded warrants will be made to investors in book-entry form through The Depository Trust Company on or about October 30, 2026, which will be the second business day following the initial trade date for the shares (this settlement cycle being referred to as "T+2"). Under Rule 15c6-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade shares prior to the business day preceding the settlement date will be required, by virtue of the fact that the shares initially will settle T+2, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of shares who wish to trade the shares prior to the business day preceding the settlement date should consult their own advisors.

The underwriters may also exercise their option to purchase up to an additional 1,428,571 of shares of our common stock from us, at the public offering price, less the underwriting discounts and commissions, for 30 days after the date of this prospectus supplement.

The underwriters expect to deliver the shares and the pre-funded warrants against payment on or about October 30, 2026.

Morgan Stanley *Leerink Partners* *Evercore ISI*

BTIG *Citizens Capital Markets*

Prospectus Supplement dated October 28, 2026.

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT

	Page
ABOUT THIS PROSPECTUS SUPPLEMENT	S-ii
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	S-iv
PROSPECTUS SUPPLEMENT SUMMARY	S-1
THE OFFERING	S-8
RISK FACTORS	S-12
USE OF PROCEEDS	S-18
CAPITALIZATION	S-19
DILUTION	S-21
DIVIDEND POLICY	S-23
DESCRIPTION OF PRE-FUNDED WARRANTS	S-24
THE CONCURRENT CONVERTIBLE NOTES OFFERING	S-26
MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS	S-28
UNDERWRITERS	S-34
LEGAL MATTERS	S-45
EXPERTS	S-45
WHERE YOU CAN FIND MORE INFORMATION	S-45
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	S-46

PROSPECTUS

	Page
About This Prospectus	ii
Risk Factors	1
Special Note Regarding Forward-Looking Statements	2
Our Company	4
Use of Proceeds	7
Securities that may be Offered	8
Description of Capital Stock	9
Description of Debt Securities	15
Description of Warrants	21
Description of Units	22
Material U.S. Federal Income Tax Considerations for Non-U.S. Holders	25
Plan of Distribution	29
Legal Matters	32
Experts	32
Where You Can Find More Information	32
Incorporation by Reference	33

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of an automatic shelf registration statement on Form S-3 (File No. 333-294170) that we filed with the Securities and Exchange Commission (the "SEC") as a "well-known seasoned issuer" as defined in Rule 405 of the Securities Act using a "shelf" registration process, and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference therein, gives more general information, some of which may not apply to this offering. Generally, when we refer to the "prospectus," we are referring to both parts combined. This prospectus supplement and any free writing prospectus we authorize for use in connection with this offering may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference herein or therein that was filed with the SEC before the date of this prospectus supplement, you should rely on the information contained in this prospectus supplement; provided, that if any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement. This prospectus supplement, the accompanying prospectus, the documents incorporated by reference into each and any free writing prospectus we authorize for use in connection with this offering include important information about us, the shares, pre-funded warrants and other information you should consider before purchasing the shares or pre-funded warrants. See the sections entitled "Incorporation of Certain Information by Reference" and "Where You Can Find More Information" in this prospectus supplement.

We have not and the underwriters have not authorized anyone to provide you with any information other than the information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, and any free writing prospectus we have authorized for use in connection with this offering. We take no responsibility for, and can provide no assurances as to the reliability of, any information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. You should not assume that the information contained in this prospectus supplement and the accompanying prospectus, or in any free writing prospectus that we have authorized for use in connection with this offering, is accurate as of any date other than the date of those respective documents, or that information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates. We are not, and the underwriters are not, making offers to sell these securities in any jurisdiction in which an offer or solicitation is not authorized or permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such an offer or solicitation. You should read this prospectus supplement, the accompanying prospectus, including any information incorporated by reference, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Incorporation of Certain Information by Reference" and "Where You Can Find More Information."

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties and covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

As used in this prospectus supplement or the accompanying prospectus, unless the context otherwise requires, references to the terms "Rapport," "Rapport Therapeutics," "the Company," "we," "us," and "our" and similar designations refer to Rapport Therapeutics, Inc. and, where appropriate, our wholly-owned subsidiary.

We intend to apply for various trademarks that we use in connection with the operation of our business. This prospectus supplement may also contain trademarks, service marks and trade names of third parties, which are the property of their respective owners. Our use or display of third parties' trademarks, service marks, trade names or products in this prospectus supplement is not intended to, and does not imply a relationship with, or endorsement or sponsorship by us. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus supplement may appear without the ®, SM and ™ symbols, but the omission of such references is not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable owner of these trademarks, service marks and trade names.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents that we incorporate by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering include forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. All statements, other than statements of historical fact, contained herein, including statements regarding our plans, objectives and expectations for our business, operations and financial performance and condition, and can be identified by terminology such as "anticipate," "believe," "contemplate," "continue" "could," "estimate," "expect," "goal," "hope," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "seek," "should," "strategy," "target," "will," "would," "can," "future" or the negative of these words or other similar expressions.

Forward-looking statements are based on management's belief and assumptions and on information currently available to management. Although we believe that the expectations reflected in forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements.

Forward-looking statements include, but are not limited to, statements about:

- our ability to identify, develop, and commercialize current and future product candidates based on our receptor associated proteins ("RAPs") technology platform;
- the initiation, timing, progress, and results of our research and development programs, nonclinical studies and clinical trials;
- the translation of endpoints in our current and planned clinical trials to planned and future registrational trials;
- our ability to replicate positive results from earlier nonclinical studies or clinical trials conducted by us or third parties in current or future clinical trials;
- our ability to demonstrate that our current and future product candidates are safe and effective for their proposed indications;
- the number of patients with the diseases or disorders we elect to pursue with our product candidates, and the willingness of those patient populations to use and adhere to our product candidates if approved in the future;
- the implementation of our business model, and strategic plans for our business, programs, future product candidates, platform, and technology;
- our ability to advance any product candidates through applicable regulatory approval processes;
- our ability to obtain additional cash and the sufficiency of our existing cash, cash equivalents and short-term investments to fund our future operating expenses and capital expenditure requirements;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our ability to comply with our obligations under our intellectual property licenses with third parties, including Janssen Pharmaceutical NV;
- our ability to maintain, expand and protect our intellectual property portfolio;
- developments relating to our competitors and our industry;
- existing regulations and regulatory developments in the United States and other jurisdictions;

- our ability to identify and enter into future license agreements and collaborations;
- general economic, industry, and market conditions, including rising interest rates and inflation;
- our ability to attract, hire, and retain our key personnel and additional qualified personnel;
- our ability to achieve any milestones in connection with our license agreement with Tenacia Biotechnology (Hong Kong) Co., Ltd.;
- our anticipated use of our existing cash, cash equivalents and short-term investments;
- our anticipated pro forma cash runway;
- the concurrent convertible notes offering and the concurrent private placement and the expected terms thereof;
- our preliminary financial estimate, which represents management's current estimate and is subject to change; and
- our anticipated use of net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering.

We caution you that the foregoing list of forward-looking statements made in this prospectus supplement, the accompanying prospectus and the documents we have filed with the SEC that are incorporated herein and therein by reference is not exclusive.

Any forward-looking statements in this prospectus supplement, the accompanying prospectus and the documents we have filed with the SEC that are incorporated herein and therein by reference, and any free writing prospectus, as applicable, reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. While we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law.

You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus supplement.

We may from time-to-time provide estimates, projections and other information concerning our industry, our business and the markets for our programs and product candidates. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from our own internal estimates and research as well as from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we are not aware of any misstatements regarding any third-party information presented in this prospectus supplement, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors.

Factors that may cause actual results to differ materially from current expectations include, among other things, those discussed in the "Risk Factors" section in this prospectus supplement, the section of the accompanying prospectus and any related free writing prospectus entitled "Risk Factors" and the risk factors and cautionary statements described in other documents that we file from time to time with the SEC, specifically under "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K for the year ended December 31, 2025, any of our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as applicable. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

In addition, statements 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 when made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete. 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.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in shares of our common stock or pre-funded warrants. For a more complete understanding of our Company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering. You should also carefully consider the matters discussed under the heading "Risk Factors" in this prospectus supplement on page S-12 and on page 1 of the accompanying prospectus, and those identified in our Annual Report on Form 10-K for the year ended December 31, 2025, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026 and June 30, 2026, and any of our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as applicable.

COMPANY OVERVIEW

We are a clinical-stage biotechnology company dedicated to the discovery and development of small molecule precision medicines for patients with neurological or psychiatric disorders. Our foundational science has elucidated complexities of neuronal receptor biology and enables us to map and target certain neuronal receptor complexes. Neuronal receptors are complex assemblies of proteins, comprising receptor principal subunits and their receptor associated proteins ("RAPs"), the latter of which play crucial roles in regulating receptor expression and function. We believe that our deep expertise in RAP biology provides an opportunity for us to interrogate previously inaccessible targets and develop neurological and psychiatric drugs that are specific for receptor variants and neuroanatomical regions associated with certain diseases. Most neuroactive drugs lack this specificity, often resulting in undesired and intolerable side effects. Leveraging our expertise, we are developing a portfolio of precision product candidates that we believe has the potential to transform the standard of care of many neurological and psychiatric disorders.

Our founders have made pioneering discoveries related to the function of RAPs in the brain. Their findings form the basis of our RAP technology platform, which enables a differentiated approach to generate precision small molecule product candidates with the potential to overcome many limitations of conventional neurology drug discovery. RAP-219, our most advanced product candidate, is an AMPA receptor ("AMPAR") negative allosteric modulator ("NAM"). RAP-219 is designed to achieve neuroanatomical specificity through its selective targeting of a RAP known as TARPγ8, which is associated with the neuronal AMPARs. Whereas AMPARs are distributed widely in the central nervous system ("CNS"), TARPγ8 is expressed only in discrete regions, including the neocortex and mesial temporal lobe, where focal onset seizures ("FOS") often originate. By contrast, TARPγ8 has minimal expression in the hindbrain, where drug effects are often associated with adverse events. As such, we believe RAP-219 has the potential for a differentiated profile as compared to traditional neuroscience medications. Due to the role of AMPA biology in various neurological disorders and our precision approach of selectively targeting TARPγ8, we believe RAP-219 has pipeline-in-a-product potential and we are evaluating it as a potentially transformational treatment for patients with FOS, primary generalized tonic-clonic seizures ("PGTCS"), and bipolar mania.

Several Phase 1 trials in RAP-219 have been conducted in healthy adult volunteers, including a single ascending dose ("SAD") trial; a multiple ascending dose ("MAD") trial; a second MAD trial ("MAD-2"), to assess alternative dosing regimens that may accelerate time to reach therapeutic exposure; and a positron emission tomography ("PET") trial, which utilized a companion PET radiotracer to confirm brain target receptor occupancy ("RO") and brain region specificity across a range of dosing and exposure levels.

In September 2025, we announced positive topline results from our Phase 2a proof-of-concept trial of RAP-219 in adult patients with drug-resistant FOS. The trial met its primary and secondary endpoints. The trial demonstrated a statistically significant reduction in long episodes ("LEs")—an objective electrographic biomarker for clinical seizure reduction—compared with baseline over the 8-week treatment period. In the trial, RAP-219 also demonstrated a statistically significant and clinically meaningful reduction in clinical seizures compared with baseline. RAP-219 was generally well tolerated. In December 2025, we presented post-hoc analysis from the Phase 2a proof-of-concept trial showing treatment with RAP-219 had consistent effects in the first (weeks 1-4) and second (weeks 5-9) four-week segments of the treatment period. This demonstrates that there was a rapid onset of efficacy, and a consistent reduction in LEs, and a consistent, clinically meaningful reduction in clinical seizures throughout the 8-week treatment period. Following 8-weeks of RAP-219 treatment in the Phase 2a trial, patients entered an 8-week follow-up period to assess the durability effect on LEs and clinical seizures. In April 2026, we presented results from the 8-week follow-up period. Based on pharmacokinetic ("PK") data collected across our Phase 1 and Phase 2 trials and further supported by population PK modeling, RAP-219 is now estimated to have a 22-day half-life, compared to the prior reported estimate of 14 days. Due to the long half-life, plasma concentrations of RAP-219 remained within the receptor occupancy therapeutic levels over the 8-week follow-up period, resulting in sustained biomarker and clinical responses consistent with the 8-week treatment period. In the first four weeks of follow-up (weeks 9-12), RAP-219 showed even greater reductions in LEs and clinical seizures than were observed during the 8-week treatment period. Clinically meaningful improvements over baseline continued through the second four weeks of follow-up (weeks 13-16). In late 2025, we initiated an open-label long-term safety trial to allow patients enrolled in our Phase 2a proof-of-concept trial in drug-resistant FOS to resume taking RAP-219. Data from the open-label trial are expected in the fourth quarter of 2026. In December 2025, we received U.S. Food and Drug Administration ("FDA") feedback from an end-of-phase 2 meeting supporting advancement into two Phase 3 trials of RAP-219 in patients with drug-resistant FOS. We are currently enrolling the Phase 3 program.

We are also expanding our epilepsy portfolio into PGTCS, the most common type of generalized seizure and an important next step in addressing unmet need in patients with seizure disorders. With proof-of-concept established in FOS, we plan to initiate a Phase 3 trial in PGTCS in the first half of 2027.

We believe RAP-219 also has therapeutic potential in bipolar disorder. In October 2026, we announced positive topline results from our Phase 2 trial of RAP-219 in adults experiencing acute mania associated with bipolar I disorder ("BD"). The trial met its primary endpoint, with RAP-219 achieving a 3.1-point placebo-adjusted improvement in the Young Mania Rating Scale ("YMRS") total score at week 3 (mean reduction from baseline of 15.4 points with RAP-219 versus 12.3 points with placebo ($p=0.045$)), and RAP-219 was well tolerated. These results establish clinical proof-of-concept for RAP-219 and its novel TARPγ8-selective mechanism in bipolar mania, supporting progression to Phase 3 trials which are expected to begin in the second half of 2027.

We also previously submitted an Investigational New Drug ("IND") application to the FDA for initiation of a Phase 2 proof-of-concept trial in RAP-219 for the treatment of diabetic peripheral neuropathic pain ("DPNP"), which was placed on clinical hold by the FDA in the fourth quarter of 2024. Following further interactions with the FDA, the FDA removed its clinical hold on the DPNP IND in December 2025. We are deferring further investment in the RAP-219 DPNP program at this time to prioritize our α6ß4 program, which we believe has significant potential in chronic pain and migraine, as described below.

Additionally, we continue to develop a long-acting injectable ("LAI") formulation of RAP-219. We believe an LAI formulation has the potential to improve patient adherence and expand the potential clinical utility across all of the RAP-219 indications. IND-enabling activities are underway and initial Phase 1 PK data are expected in the third quarter of 2027.

We also have two advanced discovery-stage nicotinic acetylcholine receptor ("nAChR") programs stemming from our RAP technology platform. nAChRs have been clinically validated in patient-reported neuropathic pain and our first advanced discovery-stage nAChR program comprises agonists of the α6ß4 nAChR. α6ß4 nAChRs are selectively expressed in sensory neurons, and the α6 subunit has human genetic validation in chronic pain. We have initiated IND-enabling activities for our α6ß4 nAChR agonist development candidate, RAP-641, directed at a genetically validated precision target that we are pursuing as a potential novel non-opiate, non-CNS approach for chronic pain and migraine. RAP-641 Phase 1 preliminary results are expected in the second half of 2027. The second advanced discovery-stage nAChR program comprises modulators of the α9α10 nAChR. Third-party preclinical genetic data suggest that this nAChR could be an attractive target in treating hearing and vestibular disorders. We continue to leverage our RAP technology platform to discover additional product candidates that we believe have the potential to provide transformative benefits for large patient populations with neurological or psychiatric diseases.

RECENT DEVELOPMENTS

Phase 2 Results and Development Plans

On October 20, 2026, we announced positive topline results from our Phase 2 trial of RAP-219 in adults experiencing acute mania associated with BD. The trial met its primary endpoint, with RAP-219 achieving a 3.1-point placebo-adjusted improvement in the YMRS total score at week 3 (mean reduction from baseline of 15.4 points with RAP-219 versus 12.3 points with placebo (p=0.045)), and RAP-219 was well tolerated. These results establish clinical proof-of-concept for RAP-219 and its novel TARPγ8-selective mechanism in bipolar mania, supporting progression to Phase 3 trials which are expected to begin in the second half of 2027.

This randomized, double-blind, placebo-controlled Phase 2 trial, conducted in the United States, enrolled 253 adults with BD experiencing an acute manic episode (YMRS≥25 at baseline). During the screening period, all treatments indicated for BD and all anxiolytics and hypnotics, regardless of the indication, were discontinued. Lorazepam was allowed as a rescue medication at protocol-defined doses, and its use required an adverse event (AE) to be recorded, regardless of whether the symptom(s) were judged to be due to a pre-existing condition or disease manifestation.

Eligible patients received RAP-219 0.75 mg once daily (following a two- or four-day titration) or placebo for three weeks in an inpatient setting. Mean baseline YMRS total score was 36.9 in the RAP-219 arm and 35.8 in the placebo arm. Topline efficacy and safety data reported are from the 3-week treatment period. Safety data from the 8-week post-treatment period will be presented at a future medical conference.

RAP-219 Demonstrated Statistically Significant Improvement in Manic Symptoms

- The trial met its primary endpoint, with RAP-219 achieving a statistically significant 3.1-point least squares ("LS") mean improvement over placebo in YMRS total score at week 3 (p=0.045).
- RAP-219–treated patients had an LS mean decrease of 15.4 points in YMRS total score at week 3 from a baseline of 36.9.
- All 11 YMRS items improved on RAP-219 compared to placebo at week 3, with improvements in irritability, thought content, disruptive-aggressive behavior, and sexual interest reaching nominal significance (p<0.05).
- RAP-219 showed progressive improvement in the placebo-adjusted YMRS scores over the 3-week treatment period (0.9 at week 1, 2.2 at week 2, and 3.1 at week 3).

- RAP-219 also demonstrated a statistically significant improvement in mania severity score versus placebo at week 3 as measured by the Clinical Global Impression—Bipolar Version mania severity scale, the pre-specified secondary endpoint (0.4; p=0.024).

RAP-219 was Well-Tolerated

During the 3-week treatment period, based on safety and tolerability data, as of the interim database lock on September 16, 2026:

- The incidence of treatment-emergent adverse events ("TEAEs") was similar between RAP-219 and placebo (51.6% vs 52.8%), as was the incidence of psychiatric TEAEs (34.9% vs 33.1%).
- All TEAEs were mild or moderate in severity, and there were no serious adverse events ("SAEs"); 3.2% of patients on RAP-219 discontinued due to a TEAE compared with 0.8% placebo.
- TEAEs observed in ≥5% of participants in either group were agitation, insomnia, restlessness, anxiety, headache, and nausea. Of these, nausea was the only TEAE that was reported ≥2x as often in participants on RAP-219 compared to placebo.
- The most common TEAE on RAP-219 was agitation, generally occurring in the first week and lasting a median duration of two days in both the RAP-219 and placebo groups. In both groups, this was considered unrelated in >80% of patients.
- Adverse effects commonly associated with current bipolar mania medications, including orthostatic hypotension, akathisia, and extrapyramidal symptoms were not reported. Somnolence was reported less often with RAP-219 (0.8%) than placebo (3.1%).

The below safety analysis set includes all randomized participants who have received at least one dose of study drug (RAP-219 or placebo).

Treatment Period TEAE Summary	Placebo (N=127)	RAP-219 (N=126)
Any TEAE, n (%)	67 (52.8)	65 (51.6)
TEAEs leading to drug discontinuation	1 (0.8)	4 (3.2)
TEAEs leading to dose reduction	1 (0.8)	0
Mild TEAEs	31 (24.4)	33 (26.2)
Moderate TEAEs	36 (28.3)	32 (25.4)
Severe TEAEs	0	0
SAEs	0	0
Any Psychiatric TEAE, n (%)	42 (33.1)	44 (34.9)

	Placebo (N=127)		RAP-219 (N=126)	
TEAEs in ≥5% of participants in either group, n(%), and treatment relatedness	**All**	**Treatment Related**	**All**	**Treatment Related**
Agitation	12 (9.4)	2 (1.6)	21 (16.7)	4 (3.2)
Insomnia	19 (15.0)	1 (0.8)	18 (14.3)	4 (3.2)
Restlessness	10 (7.9)	0	11 (8.7)	2 (1.6)
Anxiety	7 (5.5)	1 (0.8)	9 (7.1)	1 (0.8)
Headache	13 (10.2)	6 (4.7)	7 (5.6)	1 (0.8)
Nausea	2 (1.6)	1 (0.8)	7 (5.6)	4 (3.2)

We enrolled 253 patients in the randomized trial, of which, 127 patients were in the placebo group and 126 received RAP-219. Of those patients enrolled, thirty-one patients (24.6%) in the RAP-219 group discontinued the treatment, compared with fifteen (11.8%) in the placebo group. The most common reason for treatment

discontinuation was withdrawal of consent (16.7% RAP-219, 4.7% placebo). Reasons given for withdrawal of consent (RAP-219, placebo) were: personal reasons or subject decision (7, 2), family reasons (6, 3), wanted to leave the inpatient unit (5, 0), worsening symptoms or wanted to receive care elsewhere (3, 1).

Next Steps and Upcoming Milestones

We plan to meet with the FDA in the first quarter of 2027 to discuss the Phase 2 data and registrational trial design for RAP-219 in adults experiencing acute mania associated with BD. Initiation of two Phase 3 trials of RAP-219 in acute bipolar mania is expected in the second half of 2027.

Additional data from the Phase 2 trial will be presented at a future medical meeting.

Upcoming milestones include:

- FOS: FOCUS 1 and FOCUS 2 pivotal Phase 3 trials are enrolling.
- FOS open-label long-term safety trial: Initial data from the long-term open-label extension of the Phase 2a trial in focal onset seizures are expected in the fourth quarter of 2026.
- Bipolar mania: End-of-Phase 2 Meeting with the FDA expected in the first quarter of 2027; initiation of two Phase 3 pivotal trials expected in the second half of 2027.
- PGTCS: Phase 3 trial is expected to begin in the first half of 2027.
- LAI: Phase 1 PK data for a long-acting injectable formulation of RAP-219 are expected in the third quarter of 2027.
- RAP-641: Phase 1 preliminary results are expected in the second half of 2027.
- Financial position: As of June 30, 2026, the Company had $436.1 million in cash, cash equivalents and short-term investments, excluding restricted cash, expected to fund operations into the second half of 2029, beyond expected topline data from the Company's Phase 3 program in focal onset seizures.

CONCURRENT CONVERTIBLE NOTES OFFERING

Concurrently with this offering, we are offering, pursuant to a separate prospectus supplement, 2.25% convertible senior notes due 2032, in an aggregate principal amount of $150,000,000, plus up to an additional $22,500,000 aggregate principal amount of convertible notes that the underwriters of the concurrent convertible notes offering have the option to purchase from us solely to cover over-allotments, if any. The consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, and the consummation of the concurrent convertible notes offering is not contingent on the consummation of this offering. Accordingly, you should not assume that the concurrent convertible notes offering will be consummated on the terms described in this prospectus supplement, if at all, or that we will receive any additional proceeds from the concurrent convertible notes offering. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any securities being offered in the concurrent convertible notes offering. The prospectus supplement for the concurrent convertible notes offering does not constitute an offer to sell, or the solicitation of an offer to buy any of the shares of common stock or pre-funded warrants that we are offering pursuant to this prospectus supplement. See "The Concurrent Convertible Notes Offering" for additional information.

CONCURRENT PRIVATE PLACEMENT

On October 28, 2026 we entered into a securities purchase agreement with a certain investor, to issue and sell to such investor 1,428,571 shares of common stock in the concurrent private placement, which are exempt

from the registration requirements of the Securities Act, at a per share price equal to the public offering price of our common stock in this offering. The consummation of the concurrent private placement is contingent and conditioned upon consummation of this offering and the satisfaction of certain other customary conditions. However, the consummation of this offering is not contingent on the consummation of the concurrent private placement. Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. are acting as placement agents in connection with the concurrent private placement and will receive a placement agent fee equal to 6% of the total purchase price of the private placement shares.

FINANCIAL UPDATE

As of September 30, 2026, we estimate that we had cash, cash equivalents and short-term investments, excluding restricted cash, of approximately $395.0 million.

This financial data as of September 30, 2026 is preliminary and may change, and is based on information available to management as of the date of this prospectus supplement and is subject to completion by management of our financial statements as of and for the three months ended September 30, 2026. There can be no assurance that our final cash position as of September 30, 2026 will not differ from this estimate, including as a result of review adjustments and any such changes could be material. The preliminary financial data included in this prospectus supplement has been prepared by, and is the responsibility of, Rapport Therapeutics, Inc.'s management. PricewaterhouseCoopers LLP has not audited, reviewed, examined, compiled, nor applied agreed-upon procedures with respect to the preliminary financial data. Accordingly, PricewaterhouseCoopers LLP does not express an opinion or any other form of assurance with respect thereto. This estimate should not be viewed as a substitute for financial statements prepared in accordance with accounting principles generally accepted in the United States and is not necessarily indicative of the results to be achieved in any future period. Complete results will be included in our Quarterly Report on Form 10-Q for the three months ended September 30, 2026.

CORPORATE HISTORY AND INFORMATION

We were incorporated under the laws of the State of Delaware in February 2022 under the name Precision Neuroscience NewCo, Inc., and changed our name to Rapport Therapeutics, Inc. in October 2022. Our principal executive offices are located at 99 High Street, Suite 2100, Boston, MA 02110, and our telephone number is (857) 321-8020. We have one subsidiary, Rapport Therapeutics Securities Corporation, formed in December 2022 under the laws of the Commonwealth of Massachusetts. Our website address is *www.rapportrx.com*. The information contained in, or that can be accessed through, our website, does not constitute a part of this prospectus supplement, and is not incorporated by reference in this prospectus supplement or in any other filings we make with the SEC. We have included our website address in this prospectus supplement solely as an inactive textual reference. Our common stock trades on The Nasdaq Global Market under the symbol "RAPP."

IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY AND A SMALLER REPORTING COMPANY

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"). As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved;

- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002; and
- an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor's report on the financial statements.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.235 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We could be an emerging growth company until as late as December 31, 2029, but we expect to lose that status earlier since the aggregate market value of our shares of common stock held by non-affiliates exceeded $700 million on the last business day of our second quarter in 2026.

We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus supplement. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. Additionally, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, while we are an emerging growth company we will not be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies. As a result of this election, our financial statements may not be comparable to those of other public companies that comply with new or revised accounting pronouncements as of public company effective dates.

We are also a "smaller reporting company," meaning that the market value of our shares held by nonaffiliates was less than $700 million as of June 30, 2025 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 after this offering if either (i) the market value of our shares held by non-affiliates is less than $250 million as of the last business day of the most recently completed second fiscal quarter or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our shares held by nonaffiliates is less than $700 million as of the last business day of the most recently completed second fiscal quarter. If we are a smaller reporting company at the time we cease to be an emerging growth 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. However, since the aggregate market value of our shares of common stock held by non-affiliates exceeded $700 million on the last business day of our second quarter in 2026, beginning with our Quarterly Report on Form 10-Q for the quarter ended March 31, 2027, we will no longer be eligible to use the scaled disclosure accommodations available to smaller reporting companies and will become subject to additional disclosure requirements.

THE OFFERING

Common stock offered by us	8,333,334 shares of common stock (or 9,761,905 shares if the underwriters exercise their option to purchase additional shares in full).
Pre-funded warrants offered by us	We are also offering, in lieu of common stock, to investors who so choose, pre-funded warrants to purchase 1,190,476 shares of our common stock. The purchase price of each pre-funded warrant will equal the price per share at which the shares of our common stock are being sold to the public in this offering, minus $0.001, which is the exercise price of each pre-funded warrant per share. The pre-funded warrants do not expire, and each pre-funded warrant will be exercisable at any time after the date of issuance of such pre-funded warrant, subject to a beneficial ownership limitation described herein. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon the exercise of such pre-funded warrants. See the section titled "Description of Pre-Funded Warrants." The lock-up restrictions described in this prospectus supplement under "Underwriters" will not apply to issuance of common stock upon the exercise of the pre-funded warrants during the 90-day period (with respect to our officers and directors), 45-day period (with respect to certain of our stockholders) or 30-day period (with respect to us) following the date of this prospectus supplement.
Option to purchase additional shares of common stock offered by us	We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to 1,428,571 of additional shares of our common stock.
Concurrent private placement	On October 28, 2026 we entered into a securities purchase agreement with a certain investor, to issue and sell to such investor 1,428,571 shares of common stock in the concurrent private placement, which are exempt from the registration requirements of the Securities Act, at a per share price equal to the public offering price of our common stock in this offering. The consummation of the concurrent private placement is contingent and conditioned upon consummation of this offering and the satisfaction of certain other customary conditions. However, the consummation of this offering is not contingent on the consummation of the concurrent private placement. Morgan Stanley & Co. LLC, Leerink

	Partners LLC and Evercore Group L.L.C. are acting as placement agents in connection with the concurrent private placement and will receive a placement agent fee equal to 6% of the total purchase price of the private placement shares.
Common stock to be outstanding after this offering and the concurrent private placement	57,716,984 shares (or 59,145,555 shares if the underwriters exercise their option to purchase additional shares in full) assuming no exercise of any warrants included in this offering.
Use of proceeds	We estimate that the net proceeds to us from this offering and, if it is consummated, the concurrent private placement will be approximately $215.7 million, or approximately $243.9 million if the underwriters exercise their option to purchase additional shares in full, after deducting the underwriting discounts and commissions, placement agent fees and estimated offering and private placement expenses payable by us. These estimates exclude the nominal proceeds, if any, from the exercise of the pre-funded warrants sold in this offering. We currently intend to use the net proceeds from this offering, and, if consummated, the concurrent private placement, and if consummated, the concurrent convertible notes offering, together with our existing cash, cash equivalents and short- term investments, to primarily fund our ongoing and planned clinical trials advancing RAP-219, for other research and development, and for working capital and general corporate purposes. See the section titled “Use of Proceeds” for additional information.
Concurrent convertible notes offering	Concurrently with this offering, we are offering, pursuant to a separate prospectus supplement, 2.25% convertible senior notes due 2032, in an aggregate principal amount of $150,000,000, plus up to an additional $22,500,000 aggregate principal amount of convertible notes that the underwriters of the concurrent convertible notes offering have the option to purchase from us to cover over-allotments, if any. We estimate that the net proceeds from the concurrent convertible notes offering will be approximately $145.0 million, or approximately $166.8 million if the underwriters of the concurrent convertible notes offering exercise in full their over-allotment option, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, and the consummation of the concurrent convertible notes offering is not

	contingent on the consummation of this offering. Accordingly, you should not assume that the concurrent convertible notes offering will be consummated on the terms described in this prospectus supplement, if at all, or that we will receive any additional proceeds from the concurrent convertible notes offering. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any securities being offered in the concurrent convertible notes offering. The prospectus supplement for the concurrent convertible notes offering does not constitute an offer to sell, or the solicitation of an offer to buy any of the shares of common stock that we are offering pursuant to this prospectus supplement. See "The Concurrent Convertible Notes Offering" for additional information.
Risk factors	Investing in our common stock involves significant risks. You should read the "Risk Factors" section of this prospectus supplement beginning on page S-12 and page 1 of the accompanying prospectus, and under similar headings in the other documents, including our Annual Report on Form 10-K for the year ended December 31, 2025, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026 and June 30, 2026, and any of our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as applicable, incorporated by reference into this prospectus supplement and the accompanying prospectus, for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Nasdaq Global Market symbol	"RAPP." We do not intend to list the pre-funded warrants on the Nasdaq Global Market or any other national securities exchange or any recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be limited. See the section titled "Description of Pre-Funded Warrants."

All information in this prospectus supplement related to the number of shares of our common stock to be outstanding immediately after this offering is based on 47,955,079 shares of our common stock outstanding as of June 30, 2026 (which includes 317,771 shares of unvested restricted common stock outstanding as of June 30, 2026). The number of shares outstanding as of June 30, 2026 as used throughout this prospectus supplement, unless otherwise indicated, excludes:

- 8,030,456 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2026, with a weighted average exercise price of $16.43 per share;
- 16,993 shares of common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2026;

- 47,750 shares of common stock issuable upon the vesting of performance-based stock units outstanding as of June 30, 2026;
- 2,246,865 shares of common stock available for future issuance under our 2024 Stock Option and Incentive Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder;
- 690,045 shares of common stock available for future issuance under our 2024 Employee Stock Purchase Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder; and
- any shares of common stock issuable upon conversion of the convertible notes issued in the concurrent convertible notes offering.

Unless otherwise stated, all information contained in this prospectus supplement assumes no exercise of stock options or the vesting and settlement of restricted stock units described above after June 30, 2026, no exercise of the pre-funded warrants we are offering in this offering and no exercise of the underwriters' option to purchase additional shares of common stock from us but includes the issuance of the shares to be issued in the concurrent private placement.

In addition, the number of shares outstanding immediately after this offering does not include shares of common stock that we may offer and sell in the future pursuant to our sales agreement (the "Sales Agreement"), with Leerink Partners LLC and Cantor Fitzgerald & Co., as sales agents.

However, we cannot sell shares pursuant to the Sales Agreement during the period from the date of this prospectus supplement continuing through the date 30 days after the date of this prospectus supplement. See "Underwriters" for additional information regarding lock-up arrangements.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, you should carefully consider the risks and uncertainties described below and in Part I, Item 1A. "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2025, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026 and June 30, 2026, and any of our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as applicable, together with all other information contained in this prospectus supplement, the accompanying prospectus and in our filings with the SEC that we have incorporated by reference in this prospectus supplement and in any free writing prospectus that we have authorized for use in connection with this offering. If any of the following risks actually occurs, our business, financial condition or results of operations could be adversely affected, which, in turn, could have a negative impact on the price of our common stock. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Please also read carefully the section above titled "Special Note Regarding Forward-Looking Statements."

Risks Related To Our Common Stock, Pre-Funded Warrants And This Offering

If you purchase securities in this offering, you will suffer immediate and substantial dilution.

If you purchase securities in this offering, you will incur immediate and substantial dilution in the as adjusted net tangible book value of your common stock or the common stock underlying pre-funded warrants purchased in this offering because the price that you pay will be substantially greater than the net tangible book value per share of the shares you acquire. To the extent outstanding options are exercised, or outstanding restricted stock units vest and settle or the shares are issued upon conversion of the convertible notes, there will be further dilution to new investors. As a result of the dilution to your holdings, you may receive significantly less than the purchase price paid in this offering, if anything, in the event of a liquidation. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution."

Future capital raises may cause you to experience future dilution, restrict our operations or require us to relinquish rights to our product candidates.

Until such time, if ever, as we can generate substantial revenue, we expect to finance our cash needs through future offerings of additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering. The terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, intellectual property, potential future revenue streams, or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements with third parties when needed, we may be required to delay, limit, reduce or terminate our product candidate development or future commercialization efforts or grant rights to third parties to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

We have broad discretion in the use of the net proceeds from this offering and, if consummated, the concurrent private placement, and if consummated, the concurrent convertible notes offering, and may not use them effectively.

Our management has broad discretion to use our cash and cash equivalents, including the net proceeds from this offering and, if consummated, the concurrent private placement, and if consummated, the concurrent convertible notes offering, and could spend the proceeds in ways that do not improve our business, financial condition or results of operations or enhance the value of our common stock. Furthermore, you will not have the opportunity as part of your investment decision to assess whether such proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of our cash and cash equivalents, including the net proceeds from this offering and, if consummated, the concurrent private placement, and if consummated, the concurrent convertible notes offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our cash and cash equivalents, including the net proceeds from this offering and, if consummated, the concurrent private placement, and if consummated, the concurrent convertible notes offering, in ways that ultimately increase the value of your investment. We currently intend to use the net proceeds from this offering and, if consummated, the concurrent private placement, and, if consummated, the concurrent convertible notes offering, to primarily fund our ongoing and planned clinical trials advancing RAP-219, for other research and development, and for working capital and general corporate purposes. Pending the use of net proceeds, we may invest the net proceeds in a variety of capital preservation instruments, including short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States government, or we may hold such proceeds as cash, until they are used for their stated purposes.

The failure by our management to apply these funds effectively could result in financial losses that could harm our business, cause the price of our common stock to decline and delay the development of our current and future product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Because we do not anticipate paying any cash dividends on shares of our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on shares of our common stock. We anticipate that we will retain our earnings, if any, for future growth and therefore do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our shares of common stock will provide a return to stockholders.

Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur, could depress the market price of our common stock.

Sales of a substantial number of our shares in the public markets could occur at any time, and such sales, or the perception in the market that holders of a substantial number of our shares intend to sell their shares, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We, our directors and our executive officers and certain of our stockholders have agreed not to sell, dispose of or hedge any shares or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through and including the date 90 days (with respect to our officers and directors), 45 days (with respect to certain of our stockholders) or 30 days (with respect to us) after the date of this prospectus supplement, subject to certain exceptions. Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. may, in their discretion, release the restrictions on any such shares at any time without notice. We cannot predict the effect that future sales of our common stock would have on the market price of our common stock.

This offering is not contingent on the consummation of the concurrent convertible notes offering, and vice versa.

The consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, and the consummation of the concurrent convertible notes offering is not contingent on the

consummation of this offering. Accordingly, you should not assume that the concurrent convertible notes offering will be consummated on the terms described in this prospectus supplement, if at all, or that we will receive any additional proceeds from the concurrent convertible notes offering. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any securities being offered in the concurrent convertible notes offering. See "The Concurrent Convertible Notes Offering for additional information."

Our preliminary financial estimate represents management's current estimate and is subject to change.

The preliminary estimate contained in "Prospectus Supplement Summary—Financial Update" is based on information available to management as of the date of this prospectus supplement and this estimate could change. Our actual financial results as of and for the three months ended September 30, 2026 are subject to the completion of our financial statements as of such date, and for such periods. Such actual financial results will not be available until after this offering is completed and, consequently, will not be available to you prior to investing in this offering. Our actual financial results as of and for the three months ended September 30, 2026 may differ materially from the preliminary estimate we have provided as a result of completion of our final adjustments, review by our independent registered public accountants and other developments arising between now and the time that our financial results for such periods are finalized. This estimate should not be viewed as a substitute for financial statements prepared in accordance with accounting principles generally accepted in the United States and is not necessarily indicative of the results to be achieved in any future period. Complete results as of and for the three months ended September 30, 2026 will be included in our Quarterly Report on Form 10-Q for the three month period ended September 30, 2026. See the other risks described in this section and "Special Note Regarding Forward-Looking Statements" for additional information regarding factors that could result in differences between such preliminary estimate and the actual financial results we will report as of and for the three months ended September 30, 2026.

The pre-funded warrants are not listed on any exchange and we do not intend to list the pre-funded warrants on any exchange.

If you purchase pre-funded warrants, you may be unable to sell such warrants at the prices desired or at all. There is no existing trading market for the pre-funded warrants and there can be no assurance that a liquid market will develop or be maintained for the pre-funded warrants, or that you will be able to sell any of the pre-funded warrants at a particular time (if at all). In addition, we do not intend to apply for listing of the pre-funded warrants on Nasdaq or any other securities exchange or nationally recognized trading system. The liquidity of the trading market in the pre-funded warrants and the sale price, if any, for the pre-funded warrants, may be adversely affected by, among other things: (i) changes in the overall market for the pre-funded warrants; (ii) changes in our financial performance or prospects; (iii) changes or perceived changes in our creditworthiness; (iv) the prospects for companies in the industry generally; (v) the number of holders of the pre-funded warrants; and (vi) the interest of securities dealers in making a market for the pre-funded warrants.

Except for the right to participate in certain dividends and distributions, holders of the pre-funded warrants will have no rights as common stockholders until such holders exercise their pre-funded warrants and acquire our common stock.

Until holders of the pre-funded warrants exercise their pre-funded warrants and acquire shares of our common stock, such holders will have no rights with respect to the shares of our common stock underlying such pre-funded warrants, except that the holder of a pre-funded warrant shall be entitled to participate in certain distributions, including cash dividends, if any, to all holders of our common stock for no consideration. Upon exercise of their respective pre-funded warrants, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Significant holders or beneficial owners of our common stock may not be permitted to exercise the pre-funded warrants that they hold.

A holder of the pre-funded warrants will not be entitled to exercise any portion of such pre-funded warrants which, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by the holder (together with its attribution affiliates) to exceed 4.99% of the number of shares of our common stock that would be outstanding immediately after giving effect to the exercise, as such percentage ownership is set forth in accordance with the terms of the pre-funded warrants. Such percentage may be increased by the holder of the pre-funded warrants to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to us. As a result, you may not be able to exercise your pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance you could seek to sell your pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market for the pre-funded warrants.

We will not receive any meaningful amount of additional funds upon the exercise of the pre-funded warrants; however, any exercise would increase the number of shares of our common stock eligible for future resale in the public market and result in dilution to our stockholders.

Each pre-funded warrant will be exercisable until it is fully exercised and by means of payment of the nominal cash purchase price upon exercise or by means of a "cashless exercise" according to a formula set forth in the pre-funded warrant. Accordingly, we will not receive any meaningful additional funds upon the exercise of the pre-funded warrants. To the extent such pre-funded warrants are exercised, additional shares of common stock will be issued for nominal or no additional consideration, which will result in dilution to the then existing holders of our common stock and will increase the number of shares eligible for resale in the public market.

If we do not maintain a current and effective registration statement relating to the share of common stock issuable upon exercise of the pre-funded warrants, holders will only be able to exercise such pre-funded warrants on a "cashless basis."

If we do not maintain a current and effective registration statement relating to the shares of common stock issuable upon exercise of the pre-funded warrants at the time that holders wish to exercise such pre-funded warrants, they will only be able to exercise them on a "cashless basis" provided that an exemption from registration is available. As a result, the number of shares of common stock that holders will receive upon exercise of the pre-funded warrants will be fewer than it would have been had such holder exercised his warrant for cash, and holders may be limited in their ability to immediately sell shares upon exercise subject to volume or other securities law limitations. Further, if an exemption from registration is not available, holders would not be able to exercise on a cashless basis and would only be able to exercise their pre-funded warrants for cash if a current and effective registration statement relating to the shares of common stock issuable upon exercise of the pre-funded warrants is available.

Risks Related to the Concurrent Convertible Notes Offering

Conversion of the convertible notes may dilute the ownership interest of our stockholders or may otherwise depress the price of our common stock.

The conversion of some or all of the convertible notes being offered in the concurrent convertible notes offering, if consummated, may dilute the ownership interests of our stockholders. Upon conversion of the convertible notes, we have the option to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock provided, however, that we will elect to irrevocably fix the settlement method to physical settlement in the indenture governing the convertible notes and, as a result, we will satisfy our conversion obligation by delivering shares of our common stock, together with cash in lieu of fractional shares, if applicable. Any sales in the public market of our common stock issuable upon such

conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the convertible notes may encourage short selling by market participants because the conversion of the convertible notes could be used to satisfy short positions, or anticipated conversion of the convertible notes into shares of our common stock could depress the price of our common stock.

Hedging activity by investors in the convertible notes could depress the market price of our common stock.

We expect that many investors in the convertible notes being offered in the concurrent convertible notes offering, including potential purchasers of the convertible notes following the concurrent convertible notes offering, will seek to employ a convertible note arbitrage strategy. Under this strategy, investors typically short sell a certain number of shares of common stock and adjust their short position over time while they continue to hold the convertible notes. Investors may also implement this type of strategy by entering into swaps on our common stock in lieu of, or in addition to, short selling shares of our common stock. This market activity, or the market's perception that it will occur, could depress the trading price of our common stock.

We may not have the ability to raise the funds necessary to repay the convertible notes at maturity or to repurchase the convertible notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the convertible notes.

Noteholders of the convertible notes, if the concurrent convertible notes offering is consummated will have the right, subject to certain conditions and limited exceptions, to require us to repurchase all or a portion of their convertible notes upon the occurrence of a fundamental change (which will be defined in the indenture governing the convertible notes) at a fundamental change repurchase price equal to 100% of the principal amount of the convertible notes to be repurchased, *plus* accrued and unpaid interest to, but excluding, the fundamental change repurchase date. Upon maturity of the convertible notes, we must pay the principal amount of the convertible notes *plus* accrued and unpaid interest in cash, unless the convertible notes have been previously converted, redeemed or repurchased. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of the convertible notes surrendered therefor or pay cash with respect to the convertible notes being repaid at maturity. In addition, our ability to repurchase the convertible notes or to pay cash at maturity of the convertible notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase the convertible notes at a time when the repurchase is required by the indenture or to pay any cash payable at maturity of the convertible notes, as required by the indenture governing the convertible notes, would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our then-existing indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the convertible notes or make cash payments upon conversions of the convertible notes, which could have a material adverse effect on our business, financial condition and results of operations and on the market price of our common stock.

Certain provisions in the indenture governing the convertible notes may delay or prevent an otherwise beneficial takeover attempt of us.

Certain provisions in the indenture that will govern the convertible notes, if the concurrent convertible notes offering is consummated, may make it more difficult or expensive for a third party to acquire us. For example, the indenture that will govern the convertible notes will require us, subject to certain conditions and limited exceptions, to repurchase the convertible notes for cash upon the occurrence of a fundamental change (which will be defined in the indenture that will govern the convertible notes to include certain change-of-control events and the delisting of our common stock) and, in certain circumstances, to increase the conversion rate for a holder that converts its convertible notes in connection with a make-whole fundamental change (which will be defined in the indenture to include, among other events, fundamental changes and certain additional business combination

transactions). A takeover of us may trigger the requirement that we repurchase the convertible notes and/or increase the conversion rate, which could make it costlier for a potential acquirer to engage in such takeover. Such additional costs may have the effect of delaying or preventing a takeover of us that would otherwise be beneficial to our stockholders.

The accounting method for the convertible notes could adversely affect our reported financial condition and results.

The accounting method for reflecting the convertible notes, if the concurrent convertible notes offering is consummated, on our consolidated balance sheet, accruing interest expense for the convertible notes and reflecting the underlying shares of our common stock in our reported diluted earnings per share may adversely affect our reported earnings and financial condition.

Subject to our full accounting assessment with respect to the convertible notes, which is not complete as of the date of this prospectus supplement, we expect that the convertible notes we are offering pursuant to the concurrent convertible notes offering will be reflected as a liability on our consolidated balance sheet, with the initial carrying amount equal to the principal amount of the convertible notes, net of issuance costs. Issuance costs are treated as a debt discount for accounting purposes, which are amortized into interest expense over the term of such convertible notes. As a result of this amortization, the interest expense that we expect to recognize for the convertible notes for accounting purposes will be greater than the cash interest payments we will pay on the convertible notes, which will result in lower reported net income or larger reported net loss.

In addition, we expect that the shares of common stock underlying the convertible notes will be reflected in our diluted earnings per share using the "if-converted" method, in accordance with GAAP, for fiscal periods in which we report net income. Under that method, diluted earnings per share would generally be calculated assuming that all the convertible notes were converted solely into shares of common stock at the beginning of the reporting period, unless the result would be anti-dilutive. The application of the if-converted method may reduce our reported diluted earnings per share to the extent we are profitable in the future.

Furthermore, if any of the conditions to the convertibility of the convertible notes is satisfied, then we may be required under applicable accounting standards to reclassify the liability carrying value of such convertible notes as a current, rather than a long-term, liability. This reclassification could be required even if no noteholders convert such convertible notes following the occurrence of those circumstances and could materially reduce our reported working capital.

We cannot be sure whether other changes may be made to the current accounting standards related to the convertible notes, or otherwise, that could have a material effect on our reported financial results. We have not reached a final determination regarding the accounting treatment for the convertible notes, and the description above is preliminary. Accordingly, we may account for the convertible notes in a manner that is significantly different than described above.

USE OF PROCEEDS

We estimate that the net proceeds from this offering and, if consummated, the concurrent private placement will be approximately $215.7 million, or approximately $243.9 million if the underwriters exercise in full their option to purchase additional shares of common stock, after deducting the underwriting discounts and commissions, placement agent fees and estimated offering and private placement expenses payable by us. We will receive nominal proceeds, if any, from any exercise of pre-funded warrants.

We estimate that the net proceeds from the concurrent convertible notes offering, if consummated, will be approximately $145.0 million, or approximately $166.8 million if the underwriters of the concurrent convertible notes offering exercise in full their over-allotment option, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We currently intend to use the net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering, together with our existing cash, cash equivalents and short-term investments, to primarily fund our ongoing and planned clinical trials advancing RAP-219, for other research and development, and for working capital and general corporate purposes. Pending these uses, we may invest the net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering, in a variety of capital preservation instruments, including short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government , or we may hold such proceeds as cash, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

We may also use a portion of the remaining net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering, to in-license, acquire or invest in complementary businesses, technologies, products or assets. However, we currently have no agreements or commitments to complete any such transaction.

We believe that the net proceeds from this offering and, if consummated, the concurrent private placement, and, if consummated, the concurrent convertible notes offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operations through the end of 2029. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect.

The expected use of net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering, represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials and collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs, including the factors described under “Risk Factors” in this prospectus supplement and in the documents incorporated by reference herein. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering. We may find it necessary or advisable to use the net proceeds from this offering and, if consummated, the concurrent private placement and, if consummated, the concurrent convertible notes offering, for other purposes, and we will have broad discretion in the application of net proceeds.

CAPITALIZATION

The following table presents our cash, cash equivalents and investments and our capitalization as of June 30, 2026:

- on an actual basis;
- on an as adjusted basis, giving effect to the issuance and sale of 8,333,334 shares of common stock and pre-funded warrants to purchase 1,190,476 shares of common stock, after deducting underwriting discounts and commissions and estimated offering expenses payable by us and to the issuance and sale of 1,428,571 shares of common stock in the concurrent private placement, after deducting placement agent fees and estimated private placement expenses payable by us; and
- on a further as adjusted basis to give effect to the issuance and sale of $150,000,000 aggregate principal amount of the convertible notes in the concurrent convertible notes offering, after deducting the underwriting discounts and commissions and our estimated offering expenses, assuming the concurrent convertible notes offering is consummated.

The information in the table below is illustrative only, and our capitalization following the consummation of this offering and the concurrent private placement, if consummated, and the concurrent convertible notes offering, if consummated, will depend on the final terms of the offerings. Moreover, because the consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, you should not assume that the concurrent convertible notes offering, as reflected in the further as adjusted column in the table below, will take place.

This table should be read in conjunction with the other information included or incorporated by reference in this prospectus supplement, including our consolidated financial statements and related notes.

	As of June 30, 2026		
	Actual	As adjusted	Further as adjusted
	(In thousands, except share and per share data)		
Cash, cash equivalents and short-term investments	$ 436,077	$ 651,756	$ 796,736
Debt:			
Principal amount of 2.25% convertible senior notes due 2032[1]	$ —	$ —	$ 150,000
Total debt	—	—	150,000
Stockholders' equity:			
Undesignated preferred stock, $0.001 par value per share; 10,000,000 shares authorized, zero shares outstanding, actual, as adjusted and pro forma as adjusted	—	—	—
Common stock, $0.001 par value per share; 500,000,000 shares authorized; 47,955,079 shares outstanding, actual; 57,716,984 shares outstanding, as adjusted and further as adjusted[2]	48	58	58
Additional paid-in capital	735,848	951,517	951,517
Accumulated other comprehensive loss	(1,270)	(1,270)	(1,270)
Accumulated deficit	(311,700)	(311,700)	(311,700)
Total stockholders' equity	422,926	638,605	638,605
Total capitalization	$ 422,926	$ 638,605	$ 788,605

(1) The amounts shown in the table above for the convertible notes we are offering pursuant to the concurrent convertible notes offering represent their outstanding principal amount without reflecting issuance costs that we are required to recognize.

(2) The above discussion and table are based on 47,955,079 shares of our common stock outstanding as of June 30, 2026 (which includes 317,771 shares of unvested restricted common stock outstanding as of June 30, 2026) and excludes the following:

- 8,030,456 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2026, with a weighted average exercise price of $16.43 per share;
- 16,993 shares of common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2026;
- 47,750 shares of common stock issuable upon the vesting of performance-based stock units outstanding as of June 30, 2026;
- 2,246,865 shares of common stock available for future issuance under our 2024 Stock Option and Incentive Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder;
- 690,045 shares of common stock available for future issuance under our 2024 Employee Stock Purchase Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder; and
- any shares of common stock issuable upon conversion of the convertible notes issued in the concurrent convertible notes offering.

In addition, the number of shares outstanding described above does not include shares of common stock that we may offer and sell in the future pursuant to our sales agreement (the "Sales Agreement"), with Leerink Partners LLC and Cantor Fitzgerald & Co., as sales agents.

DILUTION

If you invest in our common stock or pre-funded warrants in this offering, your ownership interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock or pre-funded warrant and the as adjusted net tangible book value per share of our common stock after this offering.

As of June 30, 2026, we had net tangible book value of approximately $422.5 million, or $8.81 per share of our common stock, based upon 47,955,079 shares of our common stock outstanding as of that date (which includes 317,771 shares of unvested restricted common stock outstanding as of June 30, 2026). Historical net tangible book value per share is equal to our total tangible assets, less total liabilities and deferred offering costs, divided by the number of outstanding shares of our common stock.

Without taking into account any other changes in our historical net tangible book value after June 30, 2026, other than to give effect to the issuance and sale of shares of our common stock in this offering at the public offering price of $21.00 per share, pre-funded warrants to purchase shares of common stock at the public offering price of $20.999 per pre-funded warrant (which equals the public offering price of the common stock at which shares of our common stock are being sold to the public in this offering less the $0.001 per share exercise price of each such pre-funded warrant) (excluding shares of common stock issuable upon exercise of the pre-funded warrants, any proceeds which may be received upon exercise of the pre-funded warrants or any resulting accounting associated with the exercise of the pre-funded warrants), and 1,428,571 shares of common stock in the concurrent private placement at a purchase price of $21.00 per private placement share, and after deducting underwriting discounts and commissions, placement agent fees and estimated offering and private placement expenses payable by us, our as adjusted net tangible book value as of June 30, 2026 would have been $638.2 million, or $11.06 per share. This represents an immediate increase of $2.25 in as adjusted net tangible book value per share to existing stockholders and immediate dilution of $9.94 in as adjusted net tangible book value per share to investors participating in this offering. Dilution per share to investors purchasing shares of our common stock or pre-funded warrants in this offering is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by investors purchasing shares of our common stock or pre-funded warrants in this offering. The following table illustrates this calculation on a per share basis, without giving effect to the option to purchase additional shares granted to the underwriters:

Public offering price per share		$ 21.00
Historical net tangible book value per share as of June 30, 2026	$8.81	
Increase in as-adjusted net tangible book value per share attributable to this offering and the concurrent private placement	2.25	
As-adjusted net tangible book value per share after this offering and the concurrent private placement		11.06
Dilution per share to investors in this offering and the concurrent private placement		$ 9.94

If the underwriters exercise in full their option to purchase up to 1,428,571 additional shares at the public offering price of $21.00 per share, the as-adjusted net tangible book value will increase to $11.27 per share, representing an immediate increase to existing stockholders of $2.46 per share and an immediate dilution of $9.73 per share to new investors.

The above discussion and table are based on 47,955,079 shares of our common stock outstanding as of June 30, 2026 (which includes 317,771 shares of unvested restricted common stock outstanding as of June 30, 2026) and excludes the following:

- 8,030,456 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2026, with a weighted average exercise price of $16.43 per share;

- 16,993 shares of common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2026;
- 47,750 shares of common stock issuable upon the vesting of performance-based stock units outstanding as of June 30, 2026;
- 2,246,865 shares of common stock available for future issuance under our 2024 Stock Option and Incentive Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder;
- 690,045 shares of common stock available for future issuance under our 2024 Employee Stock Purchase Plan as of June 30, 2026, as well as any increases in the number of shares of common stock reserved for issuance thereunder; and
- any shares of common stock issuable upon conversion of the convertible notes issued in the concurrent convertible notes offering.

If holders of the pre-funded warrants exercise the pre-funded warrants, the as adjusted net tangible book value per share after giving effect to this offering would be $10.83 per share, representing an immediate increase to existing stockholders of $2.02 per share, and immediate dilution to new investors in this offering of $10.17 per share.

To the extent that outstanding options are exercised, shares of common stock are issued upon the vesting and settlement of outstanding restricted stock units, new stock awards are issued under our equity incentive plans or additional shares of common stock are issued pursuant to the Sales Agreement with Leerink Partners LLC and Cantor Fitzgerald & Co., as sales agents, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities may result in further dilution to our stockholders.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently plan to retain all of our future earnings, if any, to finance the operation, development and growth of our business. Therefore, we do not expect to pay any cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments, provisions of applicable law and other factors the board deems relevant. Our ability to pay dividends on our common stock may be restricted by the terms of any of our future indebtedness.

DESCRIPTION OF PRE-FUNDED WARRANTS

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

Form

The pre-funded warrants will be issued as individual warrant agreements to investors. The form of pre-funded warrant will be filed as an exhibit to a Current Report on Form 8-K that we expect to file with the SEC.

Term

The pre-funded warrants will not expire.

Exercisability

The pre-funded warrants will be exercisable at any time on or after their original issuance. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly signed exercise notice and by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may, in its sole discretion, elect to exercise the pre-funded warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the pre-funded warrant. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the fair market value of the common stock on the exercise date.

Exercise Limitations

We may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by the holder (together with its attribution affiliates (as defined below)) to exceed 4.99% of the number of shares of our common stock that would be outstanding immediately after giving effect to the exercise, as such percentage ownership is set forth in accordance with the terms of the pre-funded warrants. However, any holder of a pre-funded warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to us. For purposes of the foregoing, "attribution affiliates" means, collectively, the following persons and entities with respect to any holder: (i) its direct or indirect affiliates, (ii) any person acting or who could be deemed to be acting as a Section 13(d) "group" together with the holder or any attribution parties and (iii) any other persons whose beneficial ownership of our common stock would or could be aggregated with the holder and/or any other attribution parties for purposes of Section 13(d) or Section 16 of the Securities Exchange Act of 1934, as amended.

Exercise Price

The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is $0.001 per share of common stock. The exercise price of the pre-funded warrants and the number of shares of our common stock issuable upon exercise of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock. The exercise price of the pre-funded warrants will not be adjusted below the par value per share of our common stock.

Transferability

Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent. The ownership of the pre-funded warrants and any transfers of the pre-funded warrants will be registered in a warrant register maintained by the warrant agent. We will initially act as warrant agent for the pre-funded warrants.

Exchange Listing

There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on the Nasdaq Global Market or any other national securities exchange or any nationally recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be limited.

Fundamental Transactions

In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the pre-funded warrants.

Rights as a Stockholder

Except for the right to participate in certain dividends and distributions and as otherwise provided in the pre-funded warrants or by virtue of a holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the pre-funded warrant.

THE CONCURRENT CONVERTIBLE NOTES OFFERING

Concurrently with this offering, we are offering, pursuant to a separate prospectus supplement, 2.25% convertible senior notes due 2032, in an aggregate principal amount of $150,000,000, plus up to an additional $22,500,000 aggregate principal amount of convertible notes that the underwriters of the concurrent convertible notes offering have the option to purchase from us solely to cover over-allotments, if any. We estimate that the net proceeds from the concurrent convertible notes offering will be approximately $145.0 million, or approximately $166.8 million if the underwriters of the concurrent convertible notes offering exercise in full their over-allotment option, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The consummation of this offering is not contingent on the consummation of the concurrent convertible notes offering, and the consummation of the concurrent convertible notes offering is not contingent on the consummation of this offering. Accordingly, you should not assume that the concurrent convertible notes offering will be consummated on the terms described in this prospectus supplement, if at all, or that we will receive any additional proceeds from the concurrent convertible notes offering. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any securities being offered in the concurrent convertible notes offering. The prospectus supplement for the concurrent convertible notes offering does not constitute an offer to sell, or the solicitation of an offer to buy any of the shares of common stock that we are offering pursuant to this prospectus supplement.

The convertible notes will bear interest at a rate of 2.25% per year, payable semiannually in arrears on June 1 and December 1 of each year, beginning on June 1, 2027. The convertible notes will mature on December 1, 2032 unless earlier converted, redeemed or repurchased.

The convertible notes will be our general unsecured obligations and will rank senior in right of payment to all of our future indebtedness that is expressly subordinated in right of payment to the convertible notes; equal in right of payment with all of our existing and future liabilities that are not so subordinated; effectively junior to any of our future secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of our current or future subsidiaries.

Noteholders may convert all or any portion of their convertible notes at their option at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date. Notwithstanding the provisions of "Description of Notes—Conversion Rights—Settlement Upon Conversion" in the prospectus supplement with respect to the concurrent convertible notes offering, which provides that upon conversion, we will satisfy our conversion obligation by paying or delivering, as applicable, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election, we will elect to irrevocably fix the settlement method to physical settlement in the indenture governing the convertible notes and, as a result, we will satisfy our conversion obligation by delivering shares of our common stock, together with cash in lieu of fractional shares, if applicable. The conversion rate will initially be 37.3483 shares of common stock per $1,000 principal amount of convertible notes (equivalent to an initial conversion price of approximately $26.7750 per share of common stock). The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date or if we deliver a notice of redemption, we will, in certain circumstances, increase the conversion rate for a holder who elects to convert its convertible notes in connection with such a corporate event or convert its convertible notes called (or deemed called) for redemption during the related "redemption period" (which will be defined in the indenture governing the convertible notes), as the case may be.

We may redeem for cash all or any portion of the convertible notes (subject to certain limitations), at our option, on a redemption date on or after the later of (x) December 6, 2030 and (y) 60 days following (A) the reported topline data results, including the primary endpoint(s), following completion of prespecified analyses of

the primary endpoint(s) under the respective protocols and statistical analysis plans of the FOCUS 1 and FOCUS 2 clinical trials of RAP-219 in drug resistant focal onset seizures as well as the two planned pivotal trials of RAP-219 in acute bipolar mania, or (B) in the event one or more of these trials is terminated, the reported results of the remaining trials, if any, that are completed, in each case, if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide the related notice of redemption.

The redemption price for any redemption will be 100% of the principal amount of the convertible notes to be redeemed, plus accrued and unpaid interest to, but excluding, the relevant redemption date. No sinking fund is provided for the convertible notes.

If we undergo a "fundamental change" (which will be defined in the indenture governing the convertible notes), then, noteholders may require us to repurchase for cash all or any portion of their convertible notes at a fundamental change repurchase price equal to 100% of the principal amount of the convertible notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of shares of our common stock and pre-funded warrants issued pursuant to this offering. For purposes of this discussion, a "non-U.S. holder" means a beneficial owner of our common stock or pre-funded warrants that is for U.S. federal income tax purposes neither a U.S. holder (as defined below) nor a partnership (or other pass-through entity) for U.S. federal income tax purposes. A "U.S. holder" is any beneficial owner of our common stock or pre-funded warrants that is for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons has authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold their common stock or pre-funded warrants through partnerships or other pass-through entities. If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock or pre-funded warrants, the tax treatment of a partner in the partnership generally will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. A partner in a partnership or other pass-through entity that will hold our common stock or pre-funded warrants should consult his, her or its tax advisor regarding the tax consequences of purchasing, owning and disposing of our common stock or pre-funded warrants through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and pronouncements of the U.S. Internal Revenue Service (the "IRS") and judicial decisions, all as in effect as of the date of this prospectus supplement and, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change or differing interpretation could alter the tax consequences to U.S. holders or non-U.S. holders described in this prospectus supplement. There can be no assurance that the IRS will not challenge one or more of the tax consequences described herein. We assume in this discussion that each U.S. holder and non-U.S. holder holds shares of our common stock and pre-funded warrants as a capital asset within the meaning of Section 1221 of the Code, generally property held for investment.

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular holder in light of that holder's individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, any alternative minimum tax, the Medicare contribution tax on net investment income, the rules regarding qualified small business stock within the meaning of Section 1202 of the Code, the special tax accounting rules under Section 451(b) of the Code or any other aspect of any U.S. federal tax other than income taxes. This discussion also does not consider any specific facts or circumstances that may apply to a holder of our common stock or pre-funded warrants and does not address the special tax rules applicable to particular holders of our common stock or pre-funded warrants, such as:

- insurance companies;
- tax-exempt entities or governmental organizations;
- financial institutions;
- brokers or dealers in securities;

- "regulated investment companies" and "real estate investment trusts";
- pension plans;
- "controlled foreign corporations," "foreign controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- "qualified foreign pension funds," or entities wholly owned by a "qualified foreign pension fund";
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and partners and investors therein);
- persons deemed to sell our common stock or pre-funded warrants under the constructive sale provisions of the Code;
- persons that hold our common stock or pre-funded warrants as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and
- certain former citizens or long-term residents of the U.S.

This discussion is for general information only and is not tax advice. Accordingly, all prospective holders of our common stock or pre-funded warrants should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock and pre-funded warrants in their specific circumstances as well as the impact of any applicable income tax treaty.

General Treatment of Pre-Funded Warrants

Although it is not entirely free from doubt, because the exercise price of the pre-funded warrants is a nominal amount, a pre-funded warrant generally should be treated as a share of our common stock for U.S. federal income tax purposes and a holder of a pre-funded warrant generally should be taxed in the same manner as a holder of common stock. Accordingly, no gain or loss should be recognized upon the exercise of a pre-funded warrant and, upon exercise, the holding period of a pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of a pre-funded warrant should carry over to the share of common stock received upon exercise, increased by the exercise price (if applicable). This position is not binding on the IRS, however, and the IRS may treat the pre-funded warrants as warrants to acquire our common stock and, if so, the amount and character of a holder's gain with respect to an investment in our pre-funded warrants could change. Each holder of pre-funded warrants should consult his, her or its own tax advisor regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering, as well as the exercise of, certain adjustments to, and any payments in respect of the pre-funded warrants (including potential alternative characterizations).

Tax Considerations Applicable to U.S. Holders

Distributions on Our Common Stock and Pre-Funded Warrants

We have never declared or paid any cash distributions on our common stock and we do not anticipate paying cash distributions on our common stock or pre-funded warrants in the foreseeable future. Distributions, if any, on our common stock or pre-funded warrants will generally constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the U.S. holder's investment, up to such holder's tax basis in the common stock (or pre-funded warrants). Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "U.S. Holder's Gain on Sale or Other Taxable Disposition of Our Common Stock or Pre-Funded Warrants." Any such distributions will also be subject to the discussions below under the section entitled "Tax Considerations Applicable to U.S. Holders—Backup Withholding and Information Reporting."

A U.S. holder of a pre-funded warrant is entitled to receive certain distributions paid with respect to common stock prior to the exercise of the pre-funded warrant and, in such case, would be taxed in the same manner as a U.S. holder of common stock that receives such a distribution. However, under certain circumstances, it is possible for the distributions to be held in abeyance for the U.S. holder until a pre-funded warrant is exercised or the ownership limitations (described under "Description of Pre-Funded Warrants") would not be exceeded, at which time such U.S. holder shall be entitled to receive distributions. It is possible that such entitlement to distributions could cause the declaration of a distribution on our common stock to be currently taxable to U.S. holders of pre-funded warrants, including under the principles governing Section 305 of the Code, even though the U.S. holders will not receive such distributions until a future date. Additionally, it is possible that other adjustments to the terms of the pre-funded warrants can be considered a constructive distribution under Section 305 of the Code.

U.S. Holder's Gain on Sale or Other Taxable Disposition of Our Common Stock or Pre-Funded Warrants

Upon a sale or other taxable disposition of our common stock or pre-funded warrants, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between the amount of cash and the fair market value of any property received upon the sale or other taxable disposition and the U.S. holder's adjusted tax basis in the common stock or pre-funded warrants, as applicable. Capital gain or loss will constitute long-term capital gain or loss if the U.S. holder's holding period for the common stock or pre-funded warrants, as applicable, exceeds one year. Otherwise, such gain or loss will be short-term capital gain or loss. Long-term capital gains recognized by certain non-corporate U.S. holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations. U.S. holders who recognize losses with respect to a sale, exchange or other taxable disposition of our common stock or pre-funded warrants should consult their own tax advisors regarding the tax treatment of such losses. A U.S. holder of a pre-funded warrant should consult its tax advisor regarding the tax treatment of any distribution with respect to such pre-funded warrant that is held in abeyance in connection with any applicable limitation on the U.S. holder's beneficial ownership of our common stock and the tax treatment of any other adjustments to the pre-funded warrants under Section 305 of the Code.

Backup Withholding and Information Reporting

Information reporting requirements generally will apply to distributions (including constructive distributions) on the common stock or pre-funded warrants and to the proceeds of a sale or other disposition of common stock or pre-funded warrants paid by us to a U.S. holder unless such U.S. holder is an exempt recipient from backup withholding, such as C corporations and certain tax-exempt organizations. Backup withholding will apply to those payments if the U.S. holder fails to provide the holder's taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption. Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against the U.S. holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS. U.S. holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

Tax Considerations Applicable to Non-U.S. Holders

Distributions on Our Common Stock and Pre-Funded Warrants

We have never declared or paid any cash distributions on our common stock and we do not anticipate paying cash distributions on our common stock or pre-funded warrants in the foreseeable future. Distributions, if any, on our common stock or pre-funded warrants will generally constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the

excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock (or pre-funded warrants). Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "Non-U.S. Holder's Gain on Sale or Other Taxable Disposition of Our Common Stock or Pre-Funded Warrants." Any such distributions will also be subject to the discussions below under the sections entitled "Tax Considerations Applicable to Non-U.S. Holders—Backup Withholding and Information Reporting" and "Tax Considerations Applicable to Non-U.S. Holders—Withholding and Information Reporting Requirements—FATCA."

A non-U.S. holder of a pre-funded warrant is entitled to receive certain distributions paid with respect to common stock prior to the exercise of the pre-funded warrant and, in such case, would be taxed in the same manner as a non-U.S. holder of common stock that receives such a distribution. However, under certain circumstances, it is possible for the distributions to be held in abeyance for the non-U.S. holder until a pre-funded warrant is exercised or the ownership limitations (described under "Description of Pre-Funded Warrants") would not be exceeded, at which time such non-U.S. holder shall be entitled to receive distributions. It is possible that such entitlement to distributions could cause the declaration of a distribution on our common stock to be currently taxable to non-U.S. holders of pre-funded warrants, including under the principles governing Section 305 of the Code, even though the holders will not receive such distributions until a future date. Additionally, it is possible that other adjustments to the terms of the pre-funded warrants can be considered a constructive distribution under Section 305 of the Code. In addition, regulations governing "dividend equivalents" under Section 871(m) of the Code may apply to the pre-funded warrants. Under those regulations, an implicit or explicit payment under the pre-funded warrants that references a dividend distribution on our common stock generally would be taxable to a non-U.S. holder as described under "Distributions on Our Common Stock and Pre-Funded Warrants" above. Such dividend equivalent amount would be taxable and subject to withholding whether or not there is actual payment of cash or other property, and we may satisfy any withholding obligations we have in respect of the pre-funded warrants by withholding from other amounts due to a non-U.S. holder.

A holder of a pre-funded warrant should consult its tax advisor regarding the tax treatment of any distribution with respect to such pre-funded warrant that is held in abeyance in connection with any applicable limitation on the holder's beneficial ownership of our common stock and the tax treatment of any other adjustments to the pre-funded warrants under Section 305 or Section 871(m) of the Code.

Subject to the discussion in the following two paragraphs in this section and the discussions below under "Backup Withholding and Information Reporting" and "Withholding and Information Reporting Requirements—FATCA," dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30 percent rate or a reduced rate specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30 percent withholding tax if the non-U.S. holder satisfies applicable certification requirements, typically by providing an IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the U.S. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30 percent rate or a reduced rate specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock or pre-funded warrants who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to

provide a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable or successor form) to the applicable withholding agent and satisfy applicable certification and other requirements. Any documentation provided to an applicable withholding agent may need to be updated in certain circumstances. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS.

Non-U.S. Holder's Gain on Sale or Other Taxable Disposition of Our Common Stock or Pre-Funded Warrants

Subject to the discussions below under "Backup Withholding and Information Reporting" and "Withholding and Information Reporting Requirements—FATCA," a non-U.S. holder generally will not be subject to any U.S. federal income or withholding tax on any gain realized upon such holder's sale or other taxable disposition of shares of our common stock or pre-funded warrants, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock and Pre-Funded Warrants" also may apply;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30 percent tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are, or have been, at any time during the five-year period preceding such sale or other taxable disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," as described below, unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5 percent of our outstanding common stock, directly, indirectly, or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a U.S. real property holding corporation if the fair market value of its U.S. real property interests, as defined in the Code and applicable Treasury regulations, equals or exceeds 50 percent of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

A non-U.S. holder of a pre-funded warrant should consult its tax advisor regarding the tax treatment of any distribution with respect to such pre-funded warrant that is held in abeyance in connection with any applicable limitation on the non-U.S. holder's beneficial ownership of our common stock and the tax treatment of any other adjustments to the pre-funded warrants under Section 305 of the Code. These and other special rules may apply to non-U.S. holders of pre-funded warrants. Non-U.S. holders are urged to consult their own tax advisors regarding the application of these rules to pre-funded warrants.

Backup Withholding and Information Reporting

We (or the applicable paying agent) must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions (including deemed distributions) on our common stock and pre-funded warrants paid to such holder and the tax withheld, if any, with respect to such distributions. A non-U.S. holder may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock and pre-funded warrants. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in "Distributions on Our Common Stock and Pre-Funded Warrants," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock and pre-funded warrants by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations may be treated in a manner similar to dispositions effected through a U.S. office of a broker.

Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them. Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

Withholding and Information Reporting Requirements—FATCA

The Foreign Account Tax Compliance Act ("FATCA") generally imposes a U.S. federal withholding tax at a rate of 30 percent on payments of dividends on, or, subject to the discussion of certain proposed U.S. Treasury regulations below, gross proceeds from the sale or other disposition of, our common stock or pre-funded warrants paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. However, the U.S. Treasury released proposed regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30 percent applicable to the gross proceeds of a sale or other disposition of our common stock or pre-funded warrants. In the preamble to such proposed regulations, the U.S. Treasury stated that taxpayers (including withholding agents) may generally rely on the proposed regulations until final regulations are issued. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of this withholding tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their own tax advisors regarding the possible implications of this legislation on their investment in our common stock or pre-funded warrants and the entities through which they hold our common stock or pre-funded warrants, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30 percent withholding tax under FATCA.

UNDERWRITERS

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus supplement, the underwriters named below, for whom Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares and pre-funded warrants indicated below:

Name	Number of Shares	Number of Pre-Funded Warrants
Morgan Stanley & Co. LLC	3,000,000	428,571
Leerink Partners LLC	2,583,333	369,048
Evercore Group L.L.C.	1,666,667	238,095
BTIG, LLC	541,667	77,381
Citizens JMP Securities, LLC	541,667	77,381
Total:	8,333,334	1,190,476

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of common stock and pre-funded warrants subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock and pre-funded warrants offered by this prospectus supplement if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option to purchase additional shares described below.

The underwriters initially propose to offer part of the shares of common stock and pre-funded warrants directly to the public at the offering price listed on the cover page of this prospectus supplement and part to certain dealers at a price that represents a concession not in excess of $0.756 per share under the public offering price. After the initial offering of the shares of common stock, and pre-funded warrants the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 1,428,571 additional shares of common stock at the public offering price listed on the cover page of this prospectus supplement, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The underwriters have not been engaged to act as warrant agent for the pre-funded warrants or to act as underwriter or agent or otherwise participate in the issuance of the shares of our common stock upon the exercise of the pre-funded warrants.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional 1,428,571 shares of common stock and excludes the shares, notes and expenses issued in connection with the concurrent private placement and concurrent notes offering.

			Total	
	Per Share	Per Pre-Funded Warrant	No Exercise	Full Exercise
Public offering price	$ 21.00	20.999	$ 199,998,819.52	$ 229,998,810.52
Underwriting discounts and commissions to be paid by us:	$ 1.26	1.260	$ 12,000,000.60	$ 13,800,000.06
Proceeds, before expenses, to us	$ 19.74	19.739	$ 187,998,818.92	$ 216,198,810.46

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $500,000. We have agreed to reimburse the underwriters for expenses relating to clearance of this offering and the concurrent convertible notes offering with the Financial Industry Regulatory Authority up to $40,000.

Our common stock is listed on the Nasdaq Global Market under the symbol "RAPP." We do not intend to list the pre-funded warrants on the Nasdaq Global Market, any other national recognized securities exchange or any other nationally recognized trading system.

We and our officers, directors and certain of our stockholders have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our or their common stock or securities convertible into or exchangeable for shares of common stock (collectively, "Lock-Up Securities") during the period from the date of this prospectus supplement continuing through the date 90 days (with respect to our officers and directors), 45 days (with respect to certain of our stockholders) or 30 days (with respect to us) after the date of this prospectus supplement (the "restricted period"), except with the prior written consent of Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C.

Our officers, directors and certain of our stockholders have agreed with the underwriters, subject to certain exceptions, not to (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Lock-Up Securities, or (ii) enter into any hedging, swap, loan or other arrangement (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward or any other derivative transaction or instrument, however described or defined) that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of the Lock-Up Securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or (iii) make any demand for or exercise any right with respect to the registration of any Lock-Up Securities, or (iv) publicly disclose the intention to do any of the foregoing, in each case, during the restricted period, without the prior written consent of Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C.

The restrictions described in the immediately preceding paragraph do not apply to transfers of Lock-Up Securities:

(i) as one or more bona fide gifts or charitable contributions, or for bona fide estate planning purposes;

(ii) upon death by will, testamentary document or intestate succession;

(iii) if the lock-up party is a natural person, to any member of the lock-up party's immediate family or to any trust for the direct or indirect benefit of such lock-up party or the immediate family of such lock-up party, or, if such lock-up party is a trust, to a trustor or beneficiary of the trust or the estate of a beneficiary of such trust;

(iv) to a corporation, partnership, limited liability company or other entity of which the lock-up party and the immediate family of the lock-up party are the legal and beneficial owner of all of the outstanding equity securities or similar interests;

(v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv) above;

(vi) if the lock-up party is a corporation, partnership, limited liability company or other business entity, (A) to another corporation, partnership, limited liability company or other business entity that is a subsidiary or an affiliate (as defined in Rule 405 under the Securities Act of 1933, as amended) of the lock-up party, or to any investment fund or other entity which fund or entity is controlled or managed by the lock-up party or affiliates of the lock-up party (including, for the avoidance of doubt, where the lock-up is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such partnership), or (B) as part of a disposition, transfer or distribution by the lock-up party to its stockholders, partners, members or other equityholders or to the estate of any such stockholders, partners, members or other equityholders;

(vii) by operation of law, such as pursuant to a qualified domestic order, divorce settlement, divorce decree or separation agreement;

(viii) to us from one of our employees upon death, disability or termination of employment, in each case, of such employee;

(ix) if the lock-up party is not one of our officers or directors, in connection with a sale of such lock-up party's shares of common stock acquired (A) from the underwriters in this offering or (B) in open market transactions after the closing date of this offering;

(x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of common stock (including, in each case, by way of "net" or "cashless" exercise), including any transfer to us for the payment of tax withholdings or remittance payments due as a result of the vesting, settlement or exercise of such restricted stock units, options, warrants or other rights, or in connection with the conversion of convertible securities, in all such cases pursuant to equity awards granted under a stock incentive plan or other equity award plan, or pursuant to the terms of convertible securities, each as described in this prospectus supplement, provided that any securities received upon such vesting, settlement, exercise or conversion shall be subject to the terms of the lock-up agreement;

(xi) pursuant to a contract, instruction or plan that met the requirements of Rule 10b5-1 under the Exchange Act on the date such contract, instruction or plan was entered into (a "10b5-1 Plan"), provided that such 10b5-1 Plan was established prior to the execution of the applicable lock-up agreement, the existence and details of such 10b5-1 Plan were communicated to the representatives and such 10b5-1 Plan will not be amended or otherwise modified during the restricted period, and provided, further, that any filing under Section 16(a) of the Exchange Act in connection with such transfer shall indicate, to the extent permitted by such section and the related rules and regulations, that such transfer was pursuant to a 10b5-1 Plan;

(xii) to us pursuant to an agreement under which we have the option to repurchase shares or a right of first refusal with respect to transfer of such shares, provided that no filing under the Exchange Act or other public filing, report or announcement shall be voluntarily made, and if any such filing, report or announcement shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto the circumstances of such transfer or distribution; or

(xiii) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction that is approved by our board of directors and made to all holders of our capital stock involving a change of control of us, in one transaction or a series of related transactions, to a person or group of affiliated

persons, of shares of capital stock if, after such transfer, such person or group of affiliated persons would hold at least a majority of our outstanding voting securities (or the voting securities of the surviving entity), and the entry into any lock-up, voting or similar agreement pursuant to which the lock-up party may agree to transfer, sell, tender or otherwise dispose of common stock or other such securities in connection with such transaction; provided that in the event that such tender offer, merger, consolidation or other similar transaction is not completed, the lock-up party's Lock-Up Securities shall remain subject to the provisions of the lock-up agreement;

provided that, (A) in the case of clauses (i), (ii), (iii), (iv), (v) and (vi) such transfer or distribution shall not involve a disposition for value, (B) in the case of clauses (i), (ii), (iii) (iv), (v), (vi), and (vii) it shall be a condition to the transfer that the transferee sign and deliver a lock-up agreement containing the same restrictions set forth above, (C) in the case of clauses (iii), (iv), (v) and (vi) no filing under the Exchange Act or other public filing, report or announcement reporting a reduction in beneficial ownership of Lock-Up Securities shall be required or voluntarily made in connection with any such transfer or distribution during the restricted period, and (D) in the case of clauses (i), (ii), (vii), (viii), (ix) and (x) no filing under the Exchange Act or other public filing, report or announcement shall be voluntarily made, and if any such filing, report or announcement shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto the nature of such transfer. Additionally, the lock-up party can enter into a 10b5-1 Plan under the Exchange Act relating to the transfer, sale or other disposition of its Lock-Up Securities, if then permitted by us, provided that none of the securities subject to such plan may be transferred, sold or otherwise disposed of until after the expiration of the restricted period and no public announcement, report or filing under the Exchange Act, or any other public filing, report or announcement, shall be voluntarily made (whether by or on behalf of the lock-up party, us or any other party) regarding, or that otherwise discloses, the establishment of such plan during the restricted period, and if any such filing, report or announcement shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto that none of the securities subject to such plan may be transferred, sold or otherwise disposed of pursuant to such plan until after the expiration of the restricted period.

The restrictions on transfers or other dispositions by us described above do not apply to us with respect to (i) the sale of shares of common stock and pre-funded warrants pursuant to this offering, including the shares issuable upon exercise of the pre-funded warrants, (ii) the sale of notes pursuant to the concurrent convertible notes offering or the issuance of our common stock upon conversion of such notes, (iii) the sale of shares of common stock pursuant to the concurrent private placement (iv) the issuance of shares of common stock or any securities (including without limitation options, restricted stock or restricted stock units) convertible into, or exercisable for, shares of common stock pursuant to any employee stock option plan, incentive plan, stock plan, dividend reinvestment plan or otherwise in equity compensation arrangements in place as of the date of the underwriting agreement and described in this prospectus supplement, (v) the grant of awards pursuant to employee equity-based compensation plans, incentive plans, stock plans, or other arrangements in place as of the date of the underwriting agreement and described in this prospectus supplement, (vi) the filing of a registration statement on Form S-8 in connection with the registration of shares of common stock issuable under any such plan, (vii) the filing of a prospectus supplement in connection with the concurrent convertible notes offering and (viii) the issuance of up to 5% of the outstanding shares of our common stock in connection with the acquisition of the assets of, or a majority or controlling portion of the equity of, or a joint venture with, another entity; provided that each recipient of any shares of common stock issued or sold pursuant to clauses (iii), (iv), (v) and (viii) above enters into a lock-up agreement with the underwriters with the same restrictions set forth above.

Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C., in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell

more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the option. The underwriters can close out a covered short sale by exercising the option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the option. The underwriters may also sell shares in excess of the option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus supplement in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses. For example, (i) Leerink Partners LLC is a sales agent under the Sales Agreement pursuant to which we may offer and sell up to $150.0 million of shares of common stock from time to time and (ii) Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. are also acting as underwriters in the concurrent convertible notes offering and as placement agents in the concurrent private placement.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Settlement

We expect to deliver the shares of common stock to investors on or about October 30, 2026, which will be the second business day following the date of this prospectus supplement (this settlement cycle being referred to as “T+2”). Under Rule 15c6-1 under the Exchange Act, trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the shares of common stock prior to the business day preceding the settlement date will be required, by virtue of the fact that the shares of common stock initially will settle T+2, to specify an alternate

settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of the shares of common stock who wish to trade the shares of common stock prior to the business day preceding the settlement date should consult their own advisors.

Concurrent Convertible Notes Offering

Concurrently with this offering, we are conducting an offering of $150,000,000 aggregate principal amount of convertible notes (or up to $172,500,000 aggregate principal amount of convertible notes if the underwriters in such offering exercise their option to purchase additional notes in full) pursuant to a separate prospectus supplement (which we refer to as the concurrent convertible notes offering). Neither the consummation of this offering nor the concurrent convertible notes offering is contingent on the consummation of the other. No assurance can be given that the concurrent convertible notes offering will be completed on the terms described herein or at all. This prospectus supplement does not constitute an offer to sell, or the solicitation of an offer to buy, any notes in the concurrent convertible notes offering and the prospectus supplement for the concurrent convertible notes offering does not constitute an offer to buy, or the solicitation of an offer to sell, any of the shares of common stock offered hereby.

Concurrent Private Placement

On October 28, 2026 we entered into a securities purchase agreement with a certain investor, to issue and sell to such investor shares of our common stock in a concurrent private placement, which are exempt from the registration requirements of the Securities Act, at a per share price equal to the public offering price of our common stock in this offering (which transaction we refer to as the concurrent private placement). The consummation of the concurrent private placement is contingent and conditioned upon consummation of this offering and the satisfaction of certain other customary conditions. However, the consummation of this offering is not contingent on the consummation of the concurrent private placement. Morgan Stanley & Co. LLC, Leerink Partners LLC and Evercore Group L.L.C. are acting as placement agents in connection with the concurrent private placement and will receive a placement agent fee equal to 6.0% of the total purchase price of the private placement shares.

Selling Restrictions

Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

In relation to each Member State of the European Economic Area (each, a "Relevant State"), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase any shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129 (as amended).

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, or the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

(i) to any legal entity which is a qualified investor as defined in paragraph 15 of Schedule 1 to the POAT Regulations;

(ii) to fewer than 150 natural or legal persons (other than qualified investors as defined paragraph 15 of Schedule 1 to the POAT Regulations), subject to obtaining the prior consent of the representatives for any such offer; or

(iii) in any other circumstances falling within Part 1 of Schedule 1 to the POAT Regulations;

provided that no such offer of the shares shall require us or any of the representatives to publish a prospectus pursuant to the POAT Regulations.

For the purposes of this provision, the expression an "offer to the public" in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms

of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression "POAT Regulations" means the Public Offers and Admissions to Trading Regulations 2024. This prospectus supplement is only for distribution to and directed at: (i) in the United Kingdom, persons having professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and high net worth entities falling within Article 49(2)(a) to (d) of the Order; (ii) persons who are outside the United Kingdom; and (iii) any other person to whom it can otherwise be lawfully distributed, or all such persons together, Relevant Persons. Any investment or investment activity to which this prospectus supplement relates is available only to and will be engaged in only with Relevant Persons, and any person who is not a Relevant Person should not rely on it.

Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the laws of Hong Kong) and any rules made or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the laws of Hong Kong) and which do not constitute an offer to the public within the meaning thereunder. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made thereunder.

The contents of this prospectus supplement have not been reviewed, endorsed or approved by any Hong Kong regulatory authority, including the Securities and Futures Commission and the Companies Registry of Hong Kong and neither has it been nor will it be registered with the Registrar of Companies in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in doubt about any contents of this document, you should obtain independent professional advice. This prospectus supplement may not be issued, circulated or distributed (in whole or in part) in Hong Kong, and the shares may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the shares will be required, and is deemed by the acquisition of the shares, to confirm that such person is aware of the restriction on offers of the shares described in this prospectus supplement and that such person is not acquiring, and has not been offered any shares in circumstances that contravene any such restrictions and that such person has complied with all relevant laws, rules and regulations applicable to him/her/it and the jurisdiction(s) where such person or his/her/its assets are located.

Japan

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "FIEA") and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the account of or the benefit of, any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the account of or the benefit of, any Japanese Person, except in compliance with the FIEA and other applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" means any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the shares were not offered or sold or caused to be made the subject of an invitation for

subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus supplement or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act 2001 of Singapore, as modified or amended from time to time (the "SFA")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulation 2018, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable exemption or provision of the SFA.

Solely for the purposes of its obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the SFA, the Company has determined, and hereby notifies all relevant persons (as defined in Section 309A of the SFA) that the shares of common stock are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement nor any other offering or marketing material relating to us, the offering, or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement will not be filed with, and the offering of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, or the FINMA, and the offering of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of the shares.

Dubai International Financial Centre

This prospectus supplement relates to an Exempt Offer in accordance with the Markets Rules of the Dubai Financial Services Authority (the "DFSA"). This prospectus supplement is intended for distribution only to persons of a type specified in the Markets Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for the prospectus supplement. The shares to which this prospectus supplement relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement you should consult an authorized financial advisor.

Abu Dhabi Global Market

This prospectus supplement relates to an Exempt Offer in accordance with the Markets Rules of the Financial Services Regulatory Authority ("FSRA"). This prospectus supplement is intended for distribution only

to persons of a type specified in the Markets Rules of the FSRA. It must not be delivered to, or relied on by, any other person. The FSRA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The FSRA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for the prospectus supplement. The shares to which this prospectus supplement relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement you should consult an authorized financial advisor.

United Arab Emirates

The shares have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Abu Dhabi Global Market and the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Abu Dhabi Global Market and the Dubai International Financial Centre) governing the issue, offering and sale of shares. Further, this prospectus supplement does not constitute a public offer of shares in the United Arab Emirates (including the Abu Dhabi Global Market and the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus supplement has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority, Financial Services Regulatory Authority, the Dubai Financial Services Authority, or any other relevant licensing authority in the United Arab Emirates.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, in relation to the offering. This prospectus supplement does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or Exempt Investors, who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise. Any person acquiring the shares must observe such Australian on-sale restrictions.

This prospectus supplement contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus supplement is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Israel

In the State of Israel this prospectus supplement shall not be regarded as an offer to the public to purchase shares under the Israeli Securities Law, 5728-1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35

investors, subject to certain conditions, or the Addressed Investors; or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728-1968, subject to certain conditions, or the Qualified Investors. The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728-1968. We have not and will not distribute this prospectus supplement or make, distribute or direct an offer to subscribe for shares to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728-1968. In particular, we may request, as a condition to be offered shares, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728-1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728-1968 and the regulations promulgated thereunder in connection with the offer to be issued shares; (iv) that the shares that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728-1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728-1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon by Goodwin Procter LLP, Boston, Massachusetts. Cooley LLP, New York, New York, is acting as counsel for the underwriters in connection with this offering.

EXPERTS

The financial statements incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2025 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We 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 *www.sec.gov* and on our investor website at *www.rapportrx.com*. Information contained in or accessible through our website is not a part of this prospectus supplement or the accompanying prospectus and is not incorporated by reference in this prospectus supplement or the accompanying prospectus.

This prospectus supplement and the accompanying prospectus are part of a registration statement we have filed with the SEC and does not contain all of the information in the registration statement.

The full registration statement may be obtained from the SEC or us, as provided above. Statements in this prospectus supplement and the accompanying prospectus about any documents filed as exhibits to the registration statement are summaries, and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus supplement and the accompanying prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC (Commission File No. 001-42121) will automatically update and supersede this information. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement, the accompanying prospectus or any document previously incorporated by reference have been modified or superseded. We incorporate by reference the documents listed below and any future filings made by us with the SEC (other than Current Reports on Form 8-K or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the filing and concurrent effectiveness of the registration statement but prior to the termination of all offerings covered by this prospectus supplement:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the SEC on March 10, 2026;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2025 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 23, 2026;
- Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026 and June 30, 2026, filed with the SEC on May 7, 2026 and August 5, 2026, respectively;
- Current Reports on Form 8-K, filed with the SEC on January 7, 2026, January 7, 2026, April 21, 2026, June 10, 2026, and October 20, 2026 (excluding information furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K, as applicable); and
- The description of our common stock contained in our Registration Statement on Form 8-A (File No. 001-42121) as filed with the SEC on June 4, 2024, including any amendments or reports filed for the purpose of updating such description, including Exhibit 4.3 to our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on March 11, 2025.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Rapport Therapeutics, Inc.
99 High Street, Suite 2100
Boston, MA 02110
(857) 321-8020

You may also access these documents, free of charge on the SEC's website at *www.sec.gov* or on our website at *www.rapportrx.com*. Information contained in or accessible through our website does not constitute a part of this prospectus supplement and is not incorporated by reference in this prospectus supplement. We have included our website solely as an inactive textual reference.

This prospectus supplement and the accompanying prospectus are part of a registration statement we filed with the SEC. We have incorporated exhibits into the registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus supplement, the accompanying prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus supplement or those documents.

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.

PROSPECTUS



Common Stock
Preferred Stock
Debt Securities
Warrants
Units

We may from time to time issue, in one or more series or classes, our common stock, preferred stock, debt securities, warrants and/or units, in any combination, together or separately, in one or more offerings in amounts, at prices and on the terms that we will determine at the time of the offering and which will be set forth in a prospectus supplement to this prospectus and any related free writing prospectus.

We may offer these securities separately or together in units. Each time we sell securities described herein, we will provide prospective investors with a supplement to this prospectus that will specify the terms of the securities being offered. We may sell these securities to or through underwriters or dealers and also to other purchasers or through agents. We will set forth the names of any underwriters or agents, and any fees, conversions, or discount arrangements, in the applicable prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus and in the applicable prospectus supplement. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement. You should read this document and any prospectus supplement or amendment carefully before you invest in our securities.

We are an "emerging growth company" and "smaller reporting company" under the federal securities laws and, as such, are subject to reduced public company reporting requirements. See "Prospectus Summary-Implications of Being an Emerging Growth Company and Smaller Reporting Company."

Our common stock is listed on The Nasdaq Global Market under the symbol "RAPP." On March 6, 2026, the closing price for our common stock, as reported on The Nasdaq Global Market, was $30.24 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on The Nasdaq Global Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

Investing in these securities involves certain risks. See "Risk Factors" on page 1 of this prospectus as well as those included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 10, 2026.

TABLE OF CONTENTS

	Page
About This Prospectus	ii
Risk Factors	1
Special Note Regarding Forward-Looking Statements	2
Our Company	4
Use of Proceeds	7
Securities that may be Offered	8
Description of Capital Stock	9
Description of Debt Securities	15
Description of Warrants	21
Description of Units	22
Material U.S. Federal Income Tax Considerations for Non-U.S. Holders	25
Plan of Distribution	29
Legal Matters	32
Experts	32
Where You Can Find More Information	32
Incorporation by Reference	33

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC") as a "well-known seasoned issuer" as defined in Rule 405 of the Securities Act of 1933, as amended , using a "shelf" registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities described herein, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus, together with any accompanying prospectus supplement, contains important information you should know before investing in our securities, including important information about us and the securities being offered. You should read both this prospectus, any applicable accompanying prospectus supplement, and any related free writing prospectus, together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation by Reference" beginning on page 32 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in any accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any accompanying prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates. This prospectus, any applicable prospectus supplement and the information incorporated herein or therein by reference contains market data, industry statistics and other data that have been obtained or compiled from information made available by independent third parties. We are responsible for all of the disclosures contained in this prospectus, and we believe that these sources are reliable; however, we have not independently verified the information contained in such publications.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS IT IS ACCOMPANIED BY AN ADDITIONAL PROSPECTUS OR A PROSPECTUS SUPPLEMENT.

As used in this prospectus, unless the context otherwise requires, references to the terms "Rapport," "Rapport Therapeutics," "the Company," "we," "us" and "our," and similar designations refer to Rapport Therapeutics, Inc. and, where appropriate, our wholly-owned subsidiary.

We intend to apply for various trademarks that we use in connection with the operation of our business. This prospectus may also contain trademarks, service marks and trade names of third parties, which are the property of their respective owners. Our use or display of third parties' trademarks, service marks, trade names or products in this prospectus is not intended to, and does not imply a relationship with, or endorsement or sponsorship by us. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus may appear without the ®, SM and ™ symbols, but the omission of such references is not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable owner of these trademarks, service marks and trade names.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks set forth in our filings with the SEC that are incorporated by reference herein and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business.

This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in the documents incorporated herein by reference, including our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, as applicable, and the other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, includes forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical fact, contained herein, including statements regarding our plans, objectives and expectations for our business, operations and financial performance and condition, and can be identified by terminology such as "anticipate," "believe," "contemplate," "continue" "could," "estimate," "estimate," "expect," "goal," "hope," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "seek," "should," "strategy," "target," "will," "would," "can," "future" or the negative of these words or other similar expressions. Forward-looking statements are based on management's belief and assumptions and on information currently available to management. Although we believe that the expectations reflected in forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements.

Forward-looking statements include, but are not limited to, statements about:

- our ability to identify, develop, and commercialize current and future product candidates based on our RAP technology platform;
- the initiation, timing, progress, and results of our research and development programs, preclinical studies and clinical trials;
- the translation of endpoints in our current and planned clinical trials to future registrational trials;
- our ability to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties in current or future clinical trials;
- our ability to demonstrate that our current and future product candidates are safe and effective for their proposed indications;
- the number of patients with the diseases or disorders we elect to pursue with our product candidates, and the willingness of those patient populations to use and adhere to our product candidates if approved in the future;
- the implementation of our business model, and strategic plans for our business, programs, future product candidates, platform, and technology;
- our ability to advance any product candidates through applicable regulatory approval processes;
- our ability to obtain additional cash and the sufficiency of our existing cash, cash equivalents and short-term investments to fund our future operating expenses and capital expenditure requirements;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our ability to comply with our obligations under our intellectual property licenses with third parties, including Janssen Pharmaceutical NV;
- our ability to maintain, expand and protect our intellectual property portfolio;
- developments relating to our competitors and our industry;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our ability to identify and enter into future license agreements and collaborations;
- general economic, industry, and market conditions, including rising interest rates and inflation;
- our ability to attract, hire, and retain our key personnel and additional qualified personnel;

- our anticipated use of our existing cash, cash equivalents and short-term investments; and
- other risks and uncertainties, including those listed under the caption "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q, and the section of any accompanying prospectus supplement entitled "Risk Factors", as well as in other filings made with the SEC subsequent to the date hereof that are incorporated by reference herein.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

We may from time-to-time provide estimates, projections and other information concerning our industry, our business and the markets for our programs and product candidates. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from our own internal estimates and research as well as from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus and the documents that we reference therein and have filed with the SEC as exhibits thereto completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements. These estimates involve numerous assumptions, are subject to risks and uncertainties and are subject to change based on various factors, including those discussed under Part I, Item 1A "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q, and the section of any accompanying prospectus supplement entitled "Risk Factors", as well as in other filings made with the SEC subsequent to the date hereof that are incorporated by reference herein. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance.

OUR COMPANY

Overview

We are a clinical-stage biotechnology company dedicated to the discovery and development of small molecule precision medicines for patients with neurological or psychiatric disorders. Our foundational science has elucidated the complexities of neuronal receptor biology and enables us to map and target certain neuronal receptor complexes. Neuronal receptors are complex assemblies of proteins, comprising receptor principal subunits and their receptor associated proteins ("RAPs"), the latter of which play crucial roles in regulating receptor expression and function. We believe that our deep expertise in RAP biology provides an opportunity for us to interrogate previously inaccessible targets and develop neurological and psychiatric drugs that are specific for receptor variants and neuroanatomical regions associated with certain diseases. Most neuroactive drugs lack this specificity, often resulting in undesired and intolerable side effects. Leveraging our expertise, we are developing a portfolio of precision product candidates that we believe has the potential to transform the standard of care of many neurological and psychiatric disorders.

Our founders have made pioneering discoveries related to the function of RAPs in the brain. Their findings form the basis of our RAP technology platform, which enables a differentiated approach to generate precision small molecule product candidates with the potential to overcome many limitations of conventional neurology drug discovery. RAP-219, our most advanced product candidate, is an AMPA receptor ("AMPAR") negative allosteric modulator ("NAM"). RAP-219 is designed to achieve neuroanatomical specificity through its selective targeting of a RAP known as TARPγ8, which is associated with the neuronal AMPARs. Whereas AMPARs are distributed widely in the central nervous system ("CNS"), TARPγ8 is expressed only in discrete regions, including the neocortex and mesial temporal lobe, where focal onset seizures ("FOS") often originate. By contrast, TARPγ8 has low expression in the hindbrain, where drug effects are often associated with adverse events. As such, we believe RAP-219 has the potential for a differentiated profile as compared to traditional neuroscience medications. Due to the role of AMPA biology in various neurological disorders and our precision approach of selectively targeting TARPγ8, we believe RAP-219 has pipeline-in-a-product potential and we are evaluating it as a potentially transformational treatment for patients with FOS, primary generalized tonic-clonic seizures ("PGTCS"), and bipolar mania.

Several Phase 1 trials in RAP-219 have been conducted in healthy adult volunteers, including a single ascending dose ("SAD") trial; a multiple ascending dose ("MAD") trial; a second MAD trial ("MAD-2"); and a positron emission tomography ("PET") trial, which utilized a companion PET radiotracer to confirm brain target receptor occupancy ("RO") and brain region specificity across a range of dosing and exposure levels.

In September 2025, we announced positive topline results from our Phase 2a proof-of-concept trial of RAP-219 in adult patients with drug-resistant FOS. The trial met its primary and secondary endpoints. The trial demonstrated a statistically significant reduction in long episodes—an objective electrographic biomarker for clinical seizure reduction—compared with baseline over the 8-week treatment period. In the trial, RAP-219 also demonstrated a statistically significant and clinically meaningful reduction in clinical seizures compared with baseline. RAP-219 was generally well tolerated. In December 2025, we presented post-hoc analysis from the Phase 2a proof-of-concept trial showing treatment with RAP-219 had consistent effects in the first and second four-week segments of the treatment period. This demonstrates that there was a rapid onset of efficacy, and a consistent reduction in long episodes, and a consistent, clinically meaningful reduction in clinical seizures throughout the 8-week treatment period. We expect to present 8-week follow-up results in the second quarter of 2026. In late 2025, we initiated an open-label long term safety trial to allow patients enrolled in our Phase 2a proof-of-concept FOS trial to resume taking RAP-219. Data from the open-label trial are expected in the second half of 2026. In December 2025, we received U.S. Food and Drug Administration ("FDA") feedback from an end-of-phase 2 meeting supporting advancement into two Phase 3 trials of RAP-219 in patients with drug-resistant FOS and expect to initiate the Phase 3 program in FOS in the second quarter of 2026.

We are also expanding our epilepsy portfolio into PGTCS, the most common type of generalized seizure and an important next step in addressing unmet need in patients with seizure disorders. With proof-of-concept established in FOS, we plan to initiate a Phase 3 trial in PGTCS in the first half of 2027.

We believe RAP-219 also has therapeutic potential in bipolar disorder. Our Phase 2 proof-of-concept trial in bipolar mania is currently enrolling patients, with topline results expected in the first half of 2027.

We also previously submitted an Investigational New Drug ("IND") application to the FDA for initiation of a Phase 2 proof-of-concept trial in RAP-219 for the treatment of diabetic peripheral neuropathic pain ("DPNP"), which was placed on clinical hold by the FDA in the fourth quarter of 2024. Following further interactions with the FDA, the FDA removed its clinical hold on the DPNP IND in December 2025. We are deferring further investment in the RAP-219 DPNP program at this time to prioritize our a6ß4 program, which we believe has significant potential in chronic pain and migraine, as described below.

Additionally, we continue to develop a long-acting injectable ("LAI") formulation of RAP-219. We believe an LAI formulation has the potential to improve patient adherence and expand the potential clinical utility across all of the RAP-219 indications. We have initiated IND-enabling activities to support a Phase 1 clinical study in healthy volunteers, with initial pharmacokinetics ("PK") results expected in 2027.

We also have two advanced discovery-stage nicotinic acetylcholine receptor ("nAChR") programs stemming from our RAP technology platform. nAChRs have been clinically validated in patient-reported neuropathic pain and our first advanced discovery-stage nAChR program comprises agonists of the α6ß4 nAChR. α6ß4 nAChRs are selectively expressed in sensory neurons, and the α6 subunit has human genetic validation in chronic pain. We have initiated IND-enabling activities for our α6ß4 nAChR agonist development candidate, RAP-641, a genetically validated precision target that we are pursuing as a potential novel non-opiate, non-CNS approach for chronic pain and migraine. The second advanced discovery-stage nAChR program comprises modulators of the α9α10 nAChR. Third-party preclinical genetic data suggests that this nAChR could be an attractive target in treating hearing and vestibular disorders. We continue to leverage our RAP technology platform to discover additional product candidates that we believe have the potential to provide transformative benefits for large patient populations with neurological or psychiatric diseases.

Corporate History

We were incorporated under the laws of the State of Delaware in February 2022 under the name Precision Neuroscience NewCo, Inc., and changed our name to Rapport Therapeutics, Inc. in October 2022. Our principal executive offices are located at 99 High Street, Suite 2100, Boston, MA 02110, and our telephone number is (857) 321-8020. We have one subsidiary, Rapport Therapeutics Securities Corporation, formed in December 2022 under the laws of the Commonwealth of Massachusetts. Our website address is *www.rapportrx.com*. The information contained in, or that can be accessed through, our website, does not constitute a part of this prospectus, and is not incorporated by reference in this prospectus or in any other filings we make with the SEC. We have included our website address in this prospectus solely as an inactive textual reference. Our common stock trades on The Nasdaq Global Market under the symbol "RAPP."

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"). As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved;

- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002; and
- an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor's report on the financial statements.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.235 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. Additionally, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, while we are an emerging growth company we will not be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies. As a result of this election, our financial statements may not be comparable to those of other public companies that comply with new or revised accounting pronouncements as of public company effective dates. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for private companies.

We are also a "smaller reporting company" as defined in the Securities Exchange Act of 1934, as amended. We may continue to be a smaller reporting company after this offering if either (i) the market value of our shares held by non-affiliates is less than $250 million as of the last business day of the most recently completed second fiscal quarter or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our shares held by nonaffiliates is less than $700 million as of the last business day of the most recently completed second fiscal quarter. If we are a smaller reporting company at the time we cease to be an emerging growth 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.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby for general corporate purposes. General corporate purposes may include, without limitation, research and development and clinical development costs to support the advancement of our current or future product candidates and the expansion of our research and development programs; working capital; capital expenditures; and other general corporate purposes. We may temporarily invest the net proceeds in a variety of capital preservation instruments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities, or may hold such proceeds as cash, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

SECURITIES THAT MAY BE OFFERED

This prospectus contains summary descriptions of the securities we may offer from time to time. These summary descriptions are not meant to be complete descriptions of each security. The particular terms of any security will be described in the applicable prospectus supplement. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities described herein, we will provide prospective investors with a supplement to this prospectus that will contain specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered.

We may sell the securities to or through underwriters, dealers or agents, directly to purchasers or through a combination of any of these methods of sale or as otherwise set forth below under "Plan of Distribution." We, as well as any agents acting on our behalf, reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. Any prospectus supplement will set forth the names of any underwriters, dealers, agents or other entities involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our certificate of incorporation, our bylaws, and applicable provisions of Delaware corporate law. You should read our certificate of incorporation and our bylaws, in each case, as amended and supplemented, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you. We refer in this section to our third amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated by-laws as our bylaws.

General

Our authorized capital stock consists of 500,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share, all of which shares of preferred stock are undesignated. The following description of our capital stock and provisions of our certificate of incorporation and bylaws are summaries and are qualified by reference to our certificate of incorporation and our bylaws, in each case, as amended and supplemented.

Common Stock

As of March 6, 2026, we had 47,799,985 shares of common stock outstanding.

Only our common stock is registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. All outstanding shares are validly issued, fully paid and non-assessable. The rights, preferences, and privileges of holders of our common stock are subject to the rights of the stockholders of any series of preferred stock that we may designate in the future. Our certificate of incorporation and bylaws do not restrict the ability of a holder of our common stock to transfer his, her or its shares of common stock.

Preferred Stock

As of March 6, 2026, no shares of our preferred stock were issued and outstanding.

Our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of the Company or other corporate action. We have no present plan to issue any shares of preferred stock.

Registration Rights

Certain holders of shares of our common stock are entitled to certain rights with respect to registration of such shares under the Securities Act of 1933, as amended (the "Securities Act"). These shares are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of our third amended and restated investors' rights agreement, dated August 7, 2023 ("investors' rights agreement"), and are described in additional detail below. The registration of shares of our common stock pursuant to the exercise of the registration rights described below would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay all registration expenses, other than underwriting discounts, selling commissions and stock transfer taxes of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below, which will expire no later than four years after our initial public offering.

Demand Registration Rights

Certain holders of our common stock are entitled to certain demand registration rights. Under the terms of the investors' rights agreement, beginning 180 days after the completion of our initial public offering, the holders of at least 25% of these shares may request that we register all or a portion of their shares. We are not required to effect more than two registration statements which are declared or ordered effective. Such request for registration must cover shares with an anticipated aggregate offering price of at least $5 million. Subject to certain exceptions, we are not required to effect the filing of a registration statement during the period starting with the date of the filing of, and ending on a date 60 days following the effective date of, the registration statement for such offering.

Piggyback Registration Rights

Under the terms of the investors' rights agreement, in the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, the holders of our common stock will be entitled to certain piggyback registration rights allowing the holder to include their shares in such registration, subject to certain marketing and other limitations.

Form S-3 Registration Rights

Certain holders of our common stock are entitled to certain Form S-3 registration rights. Under the terms of the investors' rights agreement, holders of at least 10% of shares of our common stock can make a request that we register their shares on Form S-3 if we are qualified to file a registration statement on Form S-3 and if the reasonably anticipated aggregate net proceeds of the shares offered would equal or exceed $1 million. We will not be required to effect more than two registrations on Form S-3 within any twelve-month period. The right to have such shares registered on Form S-3 is further subject to other specified conditions and limitations.

Expiration of Registration Rights

The demand registration rights and short-form registration rights granted under the investors' rights agreement will terminate upon the earliest of (i) the closing of certain liquidation events, (ii) with respect to each stockholder, such date on which all registrable shares held by such stockholder may immediately be sold during any three-month period pursuant to Rule 144 of the Securities Act or another similar exemption and (iii) the fifth anniversary of the completion of our initial public offering.

Expenses

Ordinarily, other than underwriting discounts and commissions, we are generally required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These

expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling security holders and blue-sky fees and expenses.

Anti-Takeover Effects of Our Certificate of Incorporation and Bylaws and Delaware Law

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies

Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No Written Consent of Stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limitation may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of Stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Certificate of Incorporation and Bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of

the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, and limitation of liability must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of a majority of the outstanding shares entitled to vote on the amendment, voting together as a single class, except that the amendment of the provisions relating to notice of stockholder business and nominations and special meetings must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated Preferred Stock

Our certificate of incorporation provides for 10,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest, or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which 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 commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

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

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Choice of Forum

Our bylaws provide that the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for the following claims or causes of action under the Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of, or a claim based on, a breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees or stockholders to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws (including the interpretation, validity or enforceability thereof) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim governed by the internal affairs doctrine.

However, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all claims brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Consequently, this choice of forum provision would not apply to claims or causes of action brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction or the Securities Act. Moreover, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all claims brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

In addition, our bylaws provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering.

While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Additionally, our bylaws provide that any person or entity holding, owning or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions.

Exchange Listing

Our common stock is currently listed on The Nasdaq Global Market under the symbol "RAPP."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is 150 Royall Street, Canton, Massachusetts 02021.

DESCRIPTION OF DEBT SECURITIES

We may offer debt securities which may be senior or subordinated. We refer to senior debt securities and subordinated debt securities collectively as debt securities. Each series of debt securities may have different terms. The following description summarizes the general terms and provisions of the debt securities. We will describe the specific terms of the debt securities and the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered.

We may issue senior debt securities from time to time, in one or more series under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series, under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to the registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures. The following summary of the material provisions of the indentures is qualified in its entirety by the provisions of the indentures, including definitions of certain terms used in the indentures. Wherever we refer to particular sections or defined terms of the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are filed as exhibits to the registration statement of which this prospectus forms a part for additional information. As used in this prospectus, the term “debt securities” includes the debt securities being offered by this prospectus and all other debt securities issued by us under the indentures.

General

The indentures:

- do not limit the amount of debt securities that we may issue;
- allow us to issue debt securities in one or more series;
- do not require us to issue all of the debt securities of a series at the same time; and
- allow us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series.

Unless otherwise provided in the applicable prospectus supplement, the senior debt securities will be unsubordinated obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. Payments on the subordinated debt securities will be subordinated to the prior payment in full of all of our senior indebtedness, as described under “—Subordination” and in the applicable prospectus supplement.

Each indenture provides that we may, but need not, designate more than one trustee under an indenture. Any trustee under an indenture may resign or be removed and a successor trustee may be appointed to act with respect to the series of debt securities administered by the resigning or removed trustee. If two or more persons are acting as trustee with respect to different series of debt securities, each trustee shall be a trustee of a trust under the applicable indenture separate and apart from the trust administered by any other trustee. Except as otherwise indicated in this prospectus, any action described in this prospectus to be taken by each trustee may be taken by each trustee with respect to, and only with respect to, the one or more series of debt securities for which it is trustee under the applicable indenture.

The prospectus supplement for each offering will provide the following terms, where applicable:

- the title of the debt securities and whether they are senior or subordinated;

- any limit upon the aggregate principal amount of the debt securities of that series;
- the date or dates on which the principal of the debt securities of the series is payable;
- the price at which the debt securities will be issued, expressed as a percentage of the principal and, if other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or, if applicable, the portion of the principal amount of such debt securities that is convertible into another security of ours or the method by which any such portion shall be determined;
- the rate or rates at which the debt securities of the series shall bear interest or the manner of calculation of such rate or rates, if any;
- the date or dates from which interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates, the place(s) of payment, and the record date for the determination of holders to whom interest is payable on any such interest payment dates or the manner of determination of such record dates;
- the right, if any, to extend the interest payment periods and the duration of such extension;
- the period or periods within which, the price or prices at which and the terms and conditions upon which debt securities of the series may be redeemed, converted or exchanged, in whole or in part;
- our obligation, if any, to redeem or purchase debt securities of the series pursuant to any sinking fund, mandatory redemption, or analogous provisions (including payments made in cash in satisfaction of future sinking fund obligations) or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which, debt securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the form of the debt securities of the series including the form of the Certificate of Authentication for such series;
- if other than minimum denominations of one thousand U.S. dollars ($1,000) or any integral multiple of $1,000 thereof, the denominations in which the debt securities of the series shall be issuable;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global debt security or global debt securities; the terms and conditions, if any, upon which such global debt security or global debt securities may be exchanged in whole or in part for other individual debt securities; and the depositary for such global debt security or global debt securities;
- whether the debt securities will be convertible into or exchangeable for common stock or other securities of ours or any other person and, if so, the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, and the applicable conversion or exchange period;
- any additional or alternative events of default to those set forth in the indenture;
- any additional or alternative covenants to those set forth in the indenture;
- the currency or currencies including composite currencies, in which payment of the principal of (and premium, if any) and interest, if any, on such debt securities shall be payable (if other than the currency of the United States of America), which unless otherwise specified shall be the currency of the United States of America as at the time of payment is legal tender for payment of public or private debts;
- if the principal of (and premium, if any), or interest, if any, on such debt securities is to be payable, at our election or at the election of any holder thereof, in a coin or currency other than that in which such debt securities are stated to be payable, then the period or periods within which, and the terms and conditions upon which, such election may be made;

- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- additional or alternative provisions, if any, related to defeasance and discharge of the offered debt securities than those set forth in the indenture;
- the applicability of any guarantees;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other terms of the debt securities (which may supplement, modify or delete any provision of the indenture insofar as it applies to such series).

We may issue debt securities that provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity of the debt securities. We refer to any such debt securities throughout this prospectus as "original issue discount securities."

We will provide you with more information in the applicable prospectus supplement regarding any deletions, modifications, or additions to the events of default or covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection.

Payment

Unless otherwise provided in the applicable prospectus supplement, the principal of, and any premium or make-whole amount, and interest on, any series of the debt securities will be payable by mailing a check to the address of the person entitled to it as it appears in the applicable register for the debt securities or by wire transfer of funds to that person at an account maintained within the United States.

All monies that we pay to a paying agent or a trustee for the payment of the principal of, and any premium, or interest on, any debt security will be repaid to us if unclaimed at the end of two years after the obligation underlying payment becomes due and payable. After funds have been returned to us, the holder of the debt security may look only to us for payment, without payment of interest for the period which we hold the funds.

Merger, Consolidation or Sale of Assets

The indentures provide that we may, without the consent of the holders of any outstanding debt securities, (i) consolidate with, (ii) sell, lease or convey all or substantially all of our assets to, or (iii) merge with or into, any other entity provided that:

- either we are the continuing entity, or the successor entity, if other than us, assumes the obligations (a) to pay the principal of, and any premium, and interest on, all of the debt securities and (b) to duly perform and observe all of the covenants and conditions contained in the applicable indenture; and in the event the debt securities are convertible into or exchangeable for common stock or other securities of ours, such successor entity will, by such supplemental indenture, make provision so that the holders of debt securities of that series shall thereafter be entitled to receive upon conversion or exchange of such debt securities the number of securities or property to which a holder of the number of common stock or other securities of ours deliverable upon conversion or exchange of those debt securities would have been entitled had such conversion or exchange occurred immediately prior to such consolidation, merger, sale, conveyance, transfer or other disposition; and
- an officers' certificate and legal opinion covering such conditions are delivered to each applicable trustee.

Events of Default, Notice and Waiver

Unless the applicable prospectus supplement states otherwise, when we refer to "events of default" as defined in the indentures with respect to any series of debt securities, we mean:

- default in the payment of any installment of interest on any debt security of such series continuing for 90 days unless such date has been extended or deferred;
- default in the payment of principal of, or any premium on, any debt security of such series when due and payable unless such date has been extended or deferred;
- default in the performance or breach of any covenant or warranty in the debt securities or in the indenture by us continuing for 90 days after written notice described below;
- bankruptcy, insolvency or reorganization, or court appointment of a receiver, liquidator or trustee of us; and
- any other event of default provided with respect to a particular series of debt securities.

If an event of default (other than an event of default described in the fourth bullet point above) occurs and is continuing with respect to debt securities of any series outstanding, then the applicable trustee or the holders of 25% or more in principal amount of the debt securities of that series will have the right to declare the principal amount of, and accrued interest on, all the debt securities of that series to be due and payable. If an event of default described in the fourth bullet point above occurs, the principal amount of, and accrued interest on, all the debt securities of that series will automatically become and will be immediately due and payable without any declaration or other act on the part of the trustee or the holders of the debt securities. However, at any time after such a declaration of acceleration has been made, but before a judgment or decree for payment of the money due has been obtained by the applicable trustee, the holders of at least a majority in principal amount of outstanding debt securities of such series or of all debt securities then outstanding under the applicable indenture may rescind and annul such declaration and its consequences if:

- we have deposited with the applicable trustee all required payments of the principal, any premium, interest and, to the extent permitted by law, interest on overdue installment of interest, plus applicable fees, expenses, disbursements and advances of the applicable trustee; and
- all events of default, other than the non-payment of accelerated principal, or a specified portion thereof, and any premium, have been cured or waived.

The indentures provide that holders of debt securities of any series may not institute any proceedings, judicial or otherwise, with respect to such indenture or for any remedy under the indenture, unless the trustee fails to act for a period of 90 days after the trustee has received a written request to institute proceedings in respect of an event of default from the holders of 25% or more in principal amount of the outstanding debt securities of such series, as well as an offer of indemnity reasonably satisfactory to the trustee. However, this provision will not prevent any holder of debt securities from instituting suit for the enforcement of payment of the principal of, and any premium, and interest on, such debt securities at the respective due dates thereof.

The indentures provide that, subject to provisions in each indenture relating to its duties in the case of a default, a trustee has no obligation to exercise any of its rights or powers at the request or direction of any holders of any series of debt securities then outstanding under the indenture, unless the holders have offered to the trustee reasonable security or indemnity. The holders of at least a majority in principal amount of the outstanding debt securities of any series or of all debt securities then outstanding under an indenture shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the applicable trustee, or of exercising any trust or power conferred upon such trustee. However, a trustee may refuse to follow any direction which:

- is in conflict with any law or the applicable indenture;
- may involve the trustee in personal liability; or

- may be unduly prejudicial to the holders of debt securities of the series not joining the proceeding.

Within 120 days after the close of each fiscal year, we will be required to deliver to each trustee a certificate, signed by one of our several specified officers, stating whether or not that officer has knowledge of any default under the applicable indenture. If the officer has knowledge of any default, the notice must specify the nature and status of the default.

Modification of the Indentures

Subject to certain exceptions, the indentures may be amended with the consent of the holders of a majority in aggregate principal amount of the outstanding debt securities of all series affected by such amendment (including consents obtained in connection with a tender offer or exchange for the debt securities of such series).

We and the applicable trustee may make modifications and amendments of an indenture without the consent of any holder of debt securities for any of the following purposes:

- to cure any ambiguity, defect, or inconsistency in the applicable indenture or in the Securities of any series;
- to comply with the covenant described above under "—Merger, Consolidation or Sale of Assets";
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add events of default for the benefit of the holders of all or any series of debt securities;
- to add the covenants, restrictions, conditions or provisions relating to us for the benefit of the holders of all or any series of debt securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of debt securities, stating that such covenants, restrictions, conditions or provisions are expressly being included solely for the benefit of such series), to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default, or to surrender any right or power in the applicable indenture conferred upon us;
- to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of debt securities, as set forth in the applicable indenture;
- to make any change that does not adversely affect the rights of any holder of notes under the applicable indenture in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided in the applicable indenture, to establish the form of any certifications required to be furnished pursuant to the terms of the applicable indenture or any series of debt securities under the applicable indenture, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under the applicable indenture by a successor trustee or to appoint a separate trustee with respect to any series;
- to comply with any requirements of the SEC or any successor in connection with the qualification of the indenture under the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"); or
- to conform the applicable indenture to this "Description of Debt Securities" or any other similarly titled section in any prospectus supplement or other offering document relating to a series of debt securities.

Subordination

Payment by us of the principal of, premium, if any, and interest on any series of subordinated debt securities issued under the subordinated indenture will be subordinated to the extent set forth in an indenture supplemental to the subordinated indenture relating to such series.

Discharge, Defeasance and Covenant Defeasance

Unless otherwise provided in the applicable prospectus supplement, the indentures allow us to discharge our obligations to holders of any series of debt securities issued under any indenture when:

- either (i) all securities of such series have already been delivered to the applicable trustee for cancellation; or (ii) all securities of such series have not already been delivered to the applicable trustee for cancellation but (a) have become due and payable, (b) will become due and payable within one year, or (c) if redeemable at our option, are to be redeemed within one year, and we have irrevocably deposited with the applicable trustee, in trust, funds in such currency or currencies, or governmental obligations in an amount sufficient to pay the entire indebtedness on such debt securities in respect of principal and any premium, and interest to the date of such deposit if such debt securities have become due and payable or, if they have not, to the stated maturity or redemption date; and
- we have paid or caused to be paid all other sums payable.

Unless otherwise provided in the applicable prospectus supplement, the indentures provide that, upon our irrevocable deposit with the applicable trustee, in trust, of an amount, in such currency or currencies in which such debt securities are payable at stated maturity, or government obligations, or both, applicable to such debt securities, which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of, and any premium or make-whole amount, and interest on, such debt securities, and any mandatory sinking fund or analogous payments thereon, on the scheduled due dates therefor, the issuing company shall be released from its obligations with respect to such debt securities under the applicable indenture or, if provided in the applicable prospectus supplement, its obligations with respect to any other covenant, and any omission to comply with such obligations shall not constitute an event of default with respect to such debt securities.

The applicable prospectus supplement may further describe the provisions, if any, permitting such defeasance or covenant defeasance, including any modifications to the provisions described above, with respect to the debt securities of or within a particular series.

Conversion Rights

The terms and conditions, if any, upon which the debt securities are convertible into common stock or other securities of ours will be set forth in the applicable prospectus supplement. The terms will include whether the debt securities are convertible into shares of common stock or other securities of ours, the conversion price, or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at the issuing company's option or the option of the holders, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption of the debt securities and any restrictions on conversion.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- to cure any ambiguity; any provisions of the governing unit agreement that differ from those described below;
- to correct or supplement any defective or inconsistent provision; or
- to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification with Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

- impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
- reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or
- If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or

sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by New York law.

Form, Exchange and Transfer

We will issue each unit in global-i.e., book-entry-form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depositary's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depositary will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following discussion is a summary of certain material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. For purposes of this discussion, a non-U.S. holder means a beneficial owner of our common stock that is not for U.S. federal income tax purposes a partnership (or other pass-through entity) or any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons has authority to control all substantial decisions of the trust or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold their common stock through partnerships or other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus and, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus. There can be no assurance that the Internal Revenue Service (the "IRS"), will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code, generally property held for investment.

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, the Medicare contribution tax on net investment income, the rules regarding qualified small business stock within the meaning of Section 1202 of the Code, or any other aspect of any U.S. federal tax other than income taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt or governmental organizations;
- financial institutions;
- brokers or dealers in securities;
- "regulated investment companies" and "real estate investment trusts";
- pension plans;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- "qualified foreign pension funds," or entities wholly owned by a "qualified foreign pension fund";

- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and partners and investors therein);
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and
- U.S. expatriates.

This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our common stock should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

Distributions on Our Common Stock

We have never declared or paid any cash distributions on our common stock and we do not anticipate paying cash distributions on our common stock for the foreseeable future. Distributions, if any, on our common stock will generally constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "Gain on Sale or Other Taxable Disposition of Our Common Stock." Any such distributions will also be subject to the discussions below under the sections entitled "Backup Withholding and Information Reporting" and "Withholding and Information Reporting Requirements-FATCA."

Subject to the discussion in the following two paragraphs in this section, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30 percent rate or a reduced rate specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30 percent withholding tax if the non-U.S. holder satisfies applicable certification requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30 percent rate or a reduced rate specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable or successor form) to the applicable withholding agent and satisfy applicable certification and other requirements. Any documentation provided to an applicable withholding agent may need to be updated in certain circumstances. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS.

Gain on Sale or Other Taxable Disposition of Our Common Stock

Subject to the discussions below under "Backup Withholding and Information Reporting" and "Withholding and Information Reporting Requirements-FATCA," a non-U.S. holder generally will not be subject to any U.S.

federal income or withholding tax on any gain realized upon such holder's sale or other taxable disposition of shares of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30 percent tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are, or have been, at any time during the five-year period preceding such sale or other taxable disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," as described below, unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5 percent of our outstanding common stock, directly, indirectly, or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a U.S. real property holding corporation if the fair market value of its U.S. real property interests, as defined in the Code and applicable Treasury regulations, equals or exceeds 50 percent of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

Backup Withholding and Information Reporting

We (or the applicable paying agent) must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. A non-U.S. holder may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in "Distributions on Our Common Stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations may be treated in a manner similar to dispositions effected through a U.S. office of a broker.

Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them. Copies of information returns may be made available to the tax authorities

of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

Withholding and Information Reporting Requirements - FATCA

The Foreign Account Tax Compliance Act ("FATCA") generally imposes a U.S. federal withholding tax at a rate of 30 percent on payments of dividends on, or, subject to the discussion of certain proposed U.S. Treasury regulations below, gross proceeds from the sale or other disposition of, our common stock paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. However, the U.S. Treasury released proposed regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30 percent applicable to the gross proceeds of a sale or other disposition of our common stock. In the preamble to such proposed regulations, the U.S. Treasury stated that taxpayers (including withholding agents) may generally rely on the proposed regulations until final regulations are issued. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of this withholding tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30 percent withholding tax under FATCA.

PLAN OF DISTRIBUTION

We may sell the securities offered through this prospectus and any accompanying prospectus supplement, if required, in any of the following ways: (i) to or through underwriters or dealers, (ii) directly to purchasers, including our affiliates, (iii) through agents, (iv) in an "at the market offering," within the meaning of Rule 415(a)(4) of the Securities Act or (v) through a combination of any of these methods or any other method permitted by law. The securities may be distributed at a fixed price or prices, which may be changed, market prices prevailing at the time of sale, prices related to the prevailing market prices, or negotiated prices, either:

- on or through the facilities of The Nasdaq Global Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker otherwise than on The Nasdaq Global Market or such other securities exchanges or quotation or trading services.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. In the prospectus supplement relating to such offering, we will name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay to any such agent. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price;
- any discounts and commissions to be allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are used in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement, sales agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

In connection with the offering of securities, we may grant to the underwriters an option to purchase additional securities with an additional underwriting commission, as may be set forth in the accompanying prospectus supplement. If we grant any such option, the terms of such option will be set forth in the prospectus supplement for such securities.

If a dealer is used in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer, who may be deemed to be an "underwriter" as that term is defined in the Securities Act, may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Offered securities may also be offered and sold, if so indicated in the prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreement, if any, with us and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters in connection with their remarketing of offered securities.

Certain agents, underwriters and dealers, and their associates and affiliates, may be customers of, have borrowing relationships with, engage in other transactions with, or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale. Any underwriters involved in the sale of the securities may qualify as “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. In addition, the underwriters’ commissions, discounts or concessions may qualify as underwriters’ compensation under the Securities Act and the rules of the Financial Industry Regulatory Authority (“FINRA”).

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallot in connection with the offering, creating a short position for their own accounts. In addition, to cover overallotments or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of

underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than one scheduled business day after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the first business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than one scheduled business day after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

Any underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

The anticipated date of delivery of offered securities will be set forth in the applicable prospectus supplement relating to each offer.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Goodwin Procter LLP, Boston, Massachusetts. Any underwriters will also be advised about the validity of the securities and other legal matters by their own counsel, which will be named in the prospectus supplement.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2025 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We 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 *www.sec.gov* and on our website at *www.rapportrx.com*. Information contained in, or that can be accessed through, our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See "Description of Capital Stock." We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon request and without charge. Written requests for such copies should be directed to Rapport Therapeutics, Inc., 99 High Street, Suite 2100, Boston, MA 02110.

This prospectus is part of an automatic shelf registration statement on Form S-3 we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including all filings made after the date of the filing of this registration statement and prior to the effectiveness of this registration statement, except as to any portion of any future report or document that is not deemed filed under such provisions until we sell all of the securities:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the SEC on March 10, 2026;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2024 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 24, 2025;
- Current Reports on Form 8-K, filed with the SEC on January 7, 2026 and January 7, 2026 (excluding information furnished pursuant to Item 7.01, as applicable); and
- The description of our common stock contained in our Registration Statement on Form 8-A (File No. 001-42121) as filed with the SEC on June 4, 2024, including any amendments or reports filed for the purpose of updating such description, including Exhibit 4.3 to our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on March 11, 2025.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Rapport Therapeutics, Inc.
99 High Street, Suite 2100
Boston, MA 02110
(857) 321-8020

You may also access these documents, free of charge on the SEC's website at *www.sec.gov* or on our website at *www.rapportrx.com*. Information contained in or accessible through our website does not constitute a part of this prospectus and is not incorporated by reference in this prospectus. We have included our website solely as an inactive textual reference.

Notwithstanding the foregoing, unless specifically stated to the contrary, information that we furnish (and that is not deemed "filed" with the SEC) under Items 2.02 and 7.01 of any Current Report on Form 8-K, including the related exhibits under Item 9.01, is not incorporated by reference into this prospectus or the registration statement of which this prospectus is a part.

This prospectus is part of an automatic shelf registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

8,333,334 Shares of Common Stock

Pre-funded Warrants to Purchase up to
1,190,476 Shares of Common Stock



PROSPECTUS SUPPLEMENT

Morgan Stanley
Leerink Partners
Evercore ISI
BTIG
Citizens Capital Markets

October 28, 2026

Calculation of Filing Fee Tables

S-3

Rapport Therapeutics, Inc.

Table 1: Newly Registered and Carry Forward Securities ☐Not Applicable

		Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities													
Fees to be Paid	1	Equity	Common stock, $0.001 per share	457(r)	10,952,381	$ 21.00	$ 230,000,001.00	0.000087	$ 20,010.00				
Fees to be Paid	2	Equity	Pre-funded warrants to purchase common stock	457(r)	1,190,476		$ 0.00	0.000087	$ 0.00				
Fees Previously Paid													
Carry Forward Securities													
Carry Forward Securities													
					Total Offering Amounts:		$ 230,000,001.00		$ 20,010.00				
					Total Fees Previously Paid:				$ 0.00				
					Total Fee Offsets:				$ 0.00				
					Net Fee Due:				$ 20,010.00				

Offering Note

[1] The maximum aggregate offering price of the common stock is calculated in accordance with Rule 457(r) under the Securities Act of 1933, as amended (the "Securities Act"). Payment of the registration fee at the time of filing of the registrant's Registration Statement on Form S-3 (File No. 333-294170) on March 10, 2026 was deferred pursuant to Rules 456(b) and 457(r) under the Securities Act and is paid herewith. The amount registered of common stock includes 1,428,571 shares of common stock that the underwriters have an option to purchase and 1,190,476 shares of common stock that are issuable upon the exercise of pre-funded warrants referenced below.

[2] Pursuant to Securities and Exchange Commission staff interpretation, the entire fee is allocated to the common stock underlying the pre-funded warrants.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims												
Fee Offset Sources												

Table 3: Combined Prospectuses ☑Not Applicable

	Security Type	Security Class Title	Amount of Securities	Maximum Aggregate Offering Price of	Form Type	File Number	Initial Effective Date

			Previously Registered	Securities Previously Registered			