

PROSPECTUS



**NeuBase Therapeutics, Inc.
308,635 Shares of Common Stock**

This prospectus relates solely to the resale from time to time by the selling stockholder listed in the section of this prospectus entitled "Selling Stockholder" (the "Selling Stockholder") of up to 308,635 shares (the "Shares") of our common stock, par value \$0.0001 per share ("Common Stock"). The Shares consist solely of shares of Common Stock issued by us on April 26, 2021, pursuant to that certain Asset Purchase Agreement, dated as of January 27, 2021 (as amended, the "APA"), by and among us, NeuBase Corporation, our wholly owned subsidiary, and the Selling Stockholder. We are registering the resale of the Shares in connection with registration rights granted to the Selling Stockholder pursuant to the APA.

Our registration of the Shares covered by this prospectus does not mean that the Selling Stockholder will offer or sell any of the Shares. The Selling Stockholder may sell the Shares covered by this prospectus in a number of different ways and at varying prices. For additional information on the possible methods of sale that the Selling Stockholder may use, you should refer to the section of this prospectus entitled "Plan of Distribution" beginning on page 10 of this prospectus. We will not receive any of the proceeds from the Shares sold by the Selling Stockholder.

No underwriter or other person has been engaged to facilitate the sale of the Shares in this offering. The Selling Stockholder may be deemed to be an "underwriter" within the meaning of the Securities Act of 1933, as amended (the "Securities Act"), of the Shares that they are offering pursuant to this prospectus. We will bear all costs, expenses and fees in connection with the registration of the Shares. The Selling Stockholder will bear all commissions and discounts, if any, attributable to the sale of the Shares.

You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus carefully before you invest.

Investing in our Common Stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained on page 5 of this prospectus, any applicable prospectus supplement and in any applicable free writing prospectuses, and under similar headings in the documents that are incorporated by reference into this prospectus.

Our Common Stock is currently listed on the Nasdaq Capital Market under the symbol "NBSE." On July 2, 2021, the last reported sales price for our Common Stock was \$4.66 per share. Our stock price is subject to fluctuation. There has been no change recently in our financial condition or results of operations that is consistent with a recent change in our stock price.

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

The date of this prospectus is July 7, 2021.

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ABOUT THIS PROSPECTUS

You should rely only on the information we have provided or incorporated by reference into this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the Shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

The Selling Stockholder is offering the Shares only in jurisdictions where such issuances are permitted. The distribution of this prospectus and the issuance of the Shares in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the issuance of the Shares and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, the Shares offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”), under which the Selling Stockholder may offer from time to time up to an aggregate of 308,635 shares of Common Stock in one or more offerings. If required, each time the Selling Stockholder offers shares of Common Stock, we will provide you with, in addition to this prospectus, a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to that offering. We may also use a prospectus supplement and any related free writing prospectus to add, update or change any of the information contained in this prospectus or in documents we have incorporated by reference. This prospectus, together with any applicable prospectus supplements, any related free writing prospectuses and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in a prospectus supplement. Please carefully read both this prospectus and any prospectus supplement together with the additional information described below under the section entitled “Important Information Incorporated by Reference” before buying any of the securities offered.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section entitled “Where You Can Find More Information.”

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, any applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our Common Stock discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus forms a part. Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to “NeuBase,” the “Company,” “we,” “us,” “our” or similar references mean NeuBase Therapeutics, Inc. and its subsidiaries.

NeuBase Therapeutics, Inc.

We are a biotechnology company working towards accelerating the genetic revolution by developing a new class of synthetic medicines. Our modular peptide-nucleic acid antisense oligo (“PATrOL™”) platform which outputs “anti-gene” candidate therapies is designed to combine the specificity of genetic sequence-based target recognition with a modularity that enables use of various *in vivo* delivery technologies to enable broad and also selective tissue distribution capabilities. Given that every human disease may have a genetic component, we believe that our differentiated platform technology has the potential for broad impact by increasing, decreasing or changing gene function at either the DNA or RNA levels to resolve the progression to disease, as appropriate, in a particular indication. We plan to use our platform to address diseases driven by genetic variation and mutation, and we are initially focused on myotonic dystrophy type 1 (“DM1”), Huntington’s disease (“HD”), and oncology applications.

Globally, there are thousands of genetic diseases, most of which lack any therapeutic options. In addition, rare genetic diseases are often particularly severe, debilitating or fatal. Traditionally, therapeutic development for each rare genetic disorder has been approached with a unique strategy, which is inefficient, as there are thousands of diseases that need treatment solutions. The collective population of people with rare diseases stands to benefit profoundly from the emergence of a scalable and modular treatment development platform that allows for a more efficient discovery and delivery of drug product candidates to address these conditions cohesively.

Mutated proteins resulting from errors in deoxyribonucleic acid (“DNA”) sequences cause many rare genetic diseases and cancer. DNA in each cell of the body is transcribed into pre-RNA, which is then processed (spliced) into mRNA which is exported into the cytoplasm of the cell and translated into protein. This is termed the “central dogma” of biology. Therefore, when errors in a DNA sequence occur, they are propagated to RNAs and can become a damaging protein.

The field has learned that antisense oligonucleotides (“ASOs”) can inactivate target RNAs before they can produce harmful proteins by binding them in a sequence-specific manner, which can delay disease progression or even eliminate genetic disease symptoms. ASOs designed by others to target known disease-related mutant RNA sequences have been shown to be able to degrade these transcripts and have a positive clinical impact. Similarly, applications in modifying splicing of pre-RNA in the nucleus of the cell have been developed by others to exclude damaging exons from the final mRNA product and have been approved by the Food and Drug Administration (“FDA”). We plan to extend upon these conceptual breakthroughs by utilizing our first-in-class technology which produces investigational therapies which are similar in structure to ASOs in that they are comprised of a backbone onto which are tethered nucleobases that engage a genetic sequence of interest using complementary base-pairing, but which we believe have significant benefits in certain application areas to better resolve clinical disorders.

We are developing “anti-gene” therapies. Anti-genes are similar to, but distinct from, antisense oligonucleotides (ASOs). ASOs are short single strands of nucleic acids (traditionally thought of as single-stranded DNA molecules) which bind to defective RNA targets in cells and inhibit their ability to form defective proteins. We believe we are a leader in the discovery and development of anti-gene therapies, a new class of investigational therapies derived from peptide-nucleic acids (“PNAs”). The key differentiator between ASOs and anti-genes is that the scaffold is not derived from a natural sugar-phosphate nucleic acid backbone, rather is a synthetic polyamide which is charge-neutral and characterized by high binding affinity to a nucleic acid target, high sequence specificity, high stability, and is relatively immunologically inert. These features provide potential advantages over ASOs and other genetic therapies for modulating disease-causing genes including increased unique disease target opportunities, improved target specificity and a reduction in both sequence-dependent and independent toxicities. In addition, as these anti-genes are manufactured via standard peptide synthesis methods, they efficiently leverage the advancements in the synthetic peptide industry to enable modulation of pharmacophore delivery, pharmacokinetics, sub-cellular placement and endosomal escape.

In addition to the scaffold, we have a kit of natural nucleobases, chemically modified nucleobases which add further precision to a nucleic acid target of interest, and proprietary bi-specific nucleobases (“janus” nucleobases) which can be added to the scaffold to enable more precise target engagement. These bi-specific nucleobases, in particular, have been shown to enable accessing double stranded RNA targets comprised of secondary structures such as hairpins (double stranded RNA targets which are folded upon themselves). This allows us to potentially access regions of the target transcript which may be unique in secondary structure to allow enhanced selectivity for the target (mutant) RNA as compared to the normal RNA. Enhanced selectivity for mutant RNAs as compared to normal RNAs is often important as normal RNAs are often required for effective functioning of the cell.

A third component of the modular platform is the ability to add delivery technology to the anti-gene pharmacophores so as to reach a desired cell or tissue upon *in vivo* administration. There is flexibility to append various delivery technologies to the pharmacophore to allow either broad tissue distribution or narrow cell and/or tissue targeting if so desired based on targets. One such technology is a chemical moiety that can be used to decorate the scaffold directly and allows the anti-genes to penetrate cell membranes and into subcellular compartments where they act as well as to distribute throughout the body when administered systemically.

Finally, in addition to the anti-gene scaffold, modified nucleobases and delivery technology, the platform toolkit also includes linker technology which, when added to both ends of the anti-genes, has been shown in early pre-clinical studies to allow cooperative binding between individual drug molecules once they are engaged with the nucleic acid target to form longer and more tightly bound drugs.

This toolkit of components forms the PATrOL™ platform and allows us to manufacture gene and transcript-specific anti-genes.

We are currently focused on therapeutic areas in which we believe our drugs will provide the greatest benefit with a significant market opportunity. We intend to utilize our technology to build a pipeline of custom designed therapeutics for additional high-value disease targets. We are developing several preclinical programs using our PATrOL™ platform, including the NT0100 program, targeted at Huntington's disease, a repeat expansion disorder, the NT0200 program, targeted at myotonic dystrophy, type 1, a second repeat expansion disorder, and a program targeting KRAS G12D and G12V mutations. Preclinical studies are being conducted to evaluate the PATrOL™ platform technology and program candidates in the areas of pharmacokinetics, pharmacodynamics and tolerability, and we reported results from certain of those studies in the first calendar quarter of 2020 and have extended upon certain of those studies in the fourth calendar quarter of 2020 which illustrated that our anti-gene technology can be administered to human patient-derived cell lines and systemically (via intravenous (IV) administration) into animals with DM1 (a genetically modified model accepted as representative of the human disease in skeletal muscle) and can address the causal genetic defect. We also presented additional results from ongoing preclinical studies evaluating the PATrOL™ platform and pipeline indications at an R&D day in June 2021. In addition, we believe that the emerging pipeline of other investigational therapies that target primary and secondary RNA structure and genomic DNA potentially allows a unique market advantage across a variety of rare diseases and oncology targets.

Overall, using our PATrOL™ platform, we believe we can create anti-gene therapies that may have distinct advantages over other chemical entities currently in the market or in development for genetic medicine applications to modulate mutant genes and improve a clinical trait or disorder. These potential advantages may differ by indication and can include, among others:

- increased unique target opportunities, improved target specificity and a reduction in both sequence-dependent and independent toxicities by virtue of a synthetic polyamide scaffold which is charge-neutral and characterized by high binding affinity to a nucleic acid target, high sequence specificity, high stability, and is relatively immunologically inert;
- potential long durability by nature of the relatively highly stable polyamide scaffold;
- our anti-genes are manufactured via standard peptide synthesis methods and thus they efficiently leverage advances in the synthetic peptide industry to enable facile addition of known moieties enabling modulating pharmacophore delivery, pharmacokinetics, sub-cellular placement and endosomal escape; and
- our anti-genes may be able to target double stranded structures in RNA, which may allow unique target opportunities that standard ASOs cannot access.

With these unique component parts and their advantages, we believe our PATrOL™ platform-enabled anti-gene therapies can potentially address a multitude of rare genetic diseases and cancer, among other indications.

We employ a rational approach to selecting disease targets, considering many scientific, technical, business and indication-specific factors before choosing each indication. We intend to build a diverse portfolio of therapies to treat a variety of health conditions, with an initial emphasis on rare genetic diseases and cancers. A key component of this strategy is continuing to improve the scientific understanding and optimization of our platform technology and programs, including how various components of our platform technology perform, and how our investigational therapies impact the biological processes of the target diseases, so that we can utilize this information to reduce risk in our future programs and indications. In addition, with our expertise in discovering and characterizing novel anti-gene investigational therapies, we believe that our scientists can optimize the properties of our PATrOL™-enabled drug candidates for use with particular targets that we determine to be of high value.

We believe the depth of our knowledge and expertise with PNAs, engineered nucleotides, genetics and genomics and therapeutic development of first-in-class modalities provides potential flexibility to determine the optimal development and commercialization strategy to maximize the near and longer-term value of our therapeutic programs.

We plan to employ distinct partnering strategies based on the specific drug candidate, therapeutic area expertise and resources potential partners may bring to a collaboration. For some drug candidates, we may choose to develop and, if approved, commercialize them ourselves or through our affiliates. For other drug candidates, we may form single or multi-asset partnerships leveraging our partners' global expertise and resources needed to support large commercial opportunities.

We believe the breadth of the PATrOL™ platform gives us the ability to potentially address a multitude of inherited genetic diseases. The technology may allow us to target and inactivate gain-of-function and change-of-function mutations, and address targets in recessive disease and haploinsufficiencies by altering splicing to remove damaging exons/mutations or increasing expression of wild-type alleles by various means.

Modified scaffolds, optimized versions of traditional PNA scaffolds which we utilize, have demonstrated preclinical *in vivo* efficacy in several applications which we believe can be translated across many targets and into humans. For example, in oncology such scaffolds have reduced expression of an activated oncogene (the epidermal growth factor receptor of the EGFR gene) and have modified gene regulation by targeting microRNA to slow tumor growth. Such scaffolds have also demonstrated *in vivo* engagement with the double-stranded genome in studies done by others to perform *in vivo* single-base genome editing.

Product Pipeline

NT0100 Program - PATrOL™ Enabled Anti-Gene for Huntington's Disease

HD is a devastating rare neurodegenerative disorder. After onset, symptoms such as uncontrolled movements, cognitive impairments and emotional disturbances worsen over time. HD is caused by toxic aggregation of mutant huntingtin protein, leading to progressive neuron loss in the striatum and cortex of the brain. The wild-type huntingtin gene (*HTT*) has a region in which a three-base DNA sequence, CAG, is repeated many times. When the DNA sequence CAG is repeated 26 or fewer times in this region, the resulting protein behaves normally. While the normal or wild-type function of HTT protein is largely uncharacterized, it is known to be essential for normal brain development. When the DNA sequence CAG is repeated 40 times or more in this region, the resulting protein becomes toxic

and causes HD. Every person has two copies, or alleles, of the *HTT* gene. Only one of the alleles (the “mutant” allele) needs to bear at least 40 CAG repeats for HD to occur. HD is one of many known repeat expansion disorders, which are a set of genetic disorders caused by a mutation that leads to a repeat of nucleotides exceeding the normal threshold. Current therapies for patients with HD can only manage individual symptoms. There is no approved therapy that has been shown to delay or halt disease progression. There are approximately 30,000 symptomatic patients in the U.S. and more than 200,000 at-risk of inheriting the disease globally.

One especially important advantage of the PATrOL™ platform that makes it promising for the treatment of repeat expansion disorders like HD is the ability of our anti-genes to potentially target the RNA hairpin. This allows our therapies to potentially inactivate mutant *HTT* mRNA before it can be translated into a harmful protein via selective binding to the expanded CAG repeats while leaving the normal *HTT* mRNA largely unbound to drug and producing functional protein. Achieving mutant allele selectivity would be a key advantage for any RNA-based approach aiming to treat HD. In March of 2020, we illustrated the ability of our anti-gene technology to enrich for translational inhibition and resultant reduction of mutant protein formation in human patient-derived cell lines versus wild-type protein production, and that our anti-genes can inhibit ribosomal elongation via high-affinity binding to a target RNA. In June 2021, we presented new data demonstrating selective reduction of mutant huntingtin protein in the brain after subcutaneous dosing in the zQ175 Huntington’s disease mouse model.

The PATrOL™-enabled NT0100 program is currently in preclinical development for the treatment of HD. We expect to initiate scale up and toxicology activities in calendar year 2022, with a target IND filing in calendar year 2023.

NT0200 Program - PATrOL™ Enabled Anti-Gene for Myotonic Dystrophy Type 1

Our pipeline also contains a second potentially transformative medicine, which we believe has significant potential for Myotonic dystrophy, type 1, a severe dominantly inherited genetic disease. DM1 is characterized clinically by myotonia (an inability to relax a muscle after contraction), muscle weakness and wasting, cardiac conduction defects and cognitive deficits. DM1 is caused by an expansion of a CUG trinucleotide repeat in the 3' untranslated region (“UTR”), a noncoding region of the myotonic dystrophy protein kinase gene (*DMPK*) transcript. Diagnosis is confirmed by molecular genetic testing of the length of a trinucleotide repeat expansion. Repeat length exceeding 34 repeats is abnormal and often patients have hundreds or thousands of repeat units. Molecular genetic testing detects pathogenic variants in nearly 100% of affected individuals. It is estimated that the global prevalence of DM1 is approximately 1 in 20,000 individuals.

The trinucleotide repeat expansion in the transcript causes disease by forming an aberrant hairpin structure in the nucleus of patient cells that captures and sequesters proteins that have critical functions in the nucleus related to appropriate splicing of hundreds of transcripts. These sequestered proteins cannot then fulfill their normal functions. In addition, it has been documented that sequestration of the mutant *DMPK* transcripts in the nucleus results in their inability to be translated and potentially results in haploinsufficiency, a situation where 50% of the protein is not enough to maintain normal function. Mice with both copies of their *Dmpk* gene knocked out manifest a cardiac conduction defect (Berul CI, Maguire CT, Aronovitz MJ, Greenwood J, Miller C, Gehrmann J, Housman D, Mendelsohn ME, Reddy S. *Dpmk* dosage alterations result in atrioventricular conduction abnormalities in a mouse myotonic dystrophy model. *J Clin Invest.* 1999 Feb;103(4):R1-7. doi: 10.1172/JCI5346. PMID: 10021468; PMCID: PMC408103.) and a CNS phenotype characterized by abnormal long-term potentiation (Schulz PE, McIntosh AD, Kasten MR, Wieringa B, Epstein HF. A role for myotonic dystrophy protein kinase in synaptic plasticity. *J Neurophysiol.* 2003 Mar;89(3):1177-86. doi: 10.1152/jn.00504.2002. Epub 2002 Nov 13. PMID: 12612014.) hypothesized to be due to inappropriate cytoskeletal remodeling. We propose that our mechanism of action is via direct engagement of our anti-gene with the expanded CUG repeat hairpin structure in the 3' UTR of the mutant transcript, invasion and opening of the hairpin structure, and release of the sequestered CUG-repeat binding proteins. This release of sequestered proteins which are normally involved in developmentally appropriate pre-mRNA splicing in the nucleus resolves the generalized splice defect and thus the major causal event. Our DM1 anti-gene is designed to not specifically degrade the mutant transcript, rather to release these RNA-protein aggregates through steric displacement, which could also resolve any potential haploinsufficiency and as a result may improve endophenotypes of the clinical condition, such as in the heart and brain (contingent on delivering effective concentrations of anti-gene to these tissues). Our recent data illustrates that we are able to systemically deliver our anti-genes in a DM1 genetic mouse model, engage the target in the skeletal muscles of the animals, and induce molecular rescue of the causal splice defects, and functional rescue of the phenotype.

The PATrOL™-enabled NT0200 program is currently in preclinical development for the treatment of DM1. We expect to initiate scale up and toxicology activities beginning in the middle of calendar year 2021, with an IND filing planned during calendar year 2022.

Additional Indications

On June 8, 2021, we unveiled a program targeting two *KRAS* oncogenic driver mutations, G12D and G12V, and presented *in vitro* and *in vivo* data from the new program. In addition, we are in the process of building an early stage pipeline of other therapies that focus on the unique advantages of our technology across a variety of diseases with an underlying genetic driver.

Asset Purchase Agreement

On January 27, 2021, we entered into an Asset Purchase Agreement by and among us, NeuBase Corporation, our wholly owned subsidiary, and Vera Therapeutics, Inc. (the “Selling Stockholder”) as amended by the Amendment to Asset Purchase Agreement, dated as of April 20, 2021, by and between us and the Selling Stockholder (collectively, the “APA”). Pursuant to the terms of the APA, we acquired infrastructure, materials, and intellectual property for peptide-nucleic acid (PNA) scaffolds from the Selling Stockholder for total consideration of approximately \$0.8 million in cash and 308,635 shares of common stock (of which 146,375 were issued to the Selling Stockholder and 162,260 are being held in escrow for the benefit of the Selling Stockholder and released to the Selling Stockholder in accordance with the terms of an escrow agreement between NeuBase Corporation and the Selling Stockholder). The transaction closed on April 26, 2021, and we issued the Shares to the Selling Stockholder on that date.

In connection with the issuance and sale of the Shares, we granted certain registration rights with respect to the Shares, pursuant to the APA. As required by the APA, we agreed to, among other things, (i) file a registration statement under the Securities Act with the SEC to cover the resale of the Shares by the Selling Stockholder, (ii) use commercially reasonable efforts to cause such registration statement to become effective as soon as practicable after the filing thereof and (iii) keep such registration statement continuously effective in accordance with the terms of the APA. The registration statement of which this prospectus is a part relates to the resale of the Shares.

Additional Information

For a complete description of our business, financial condition, results of operations and other important information, we refer you to our filings with the SEC that are incorporated by reference in this prospectus, including our Annual Report on Form 10-K for the year ended September 30, 2020 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021. For instructions on how to find copies of these documents, see the section entitled “Where You Can Find More Information.”

We were incorporated under the laws of the State of Delaware on August 4, 2009, as successor to BBM Holdings, Inc. (formerly known as Prime Resource, Inc., which was organized March 29, 2002 as a Utah corporation) pursuant to a reincorporation merger. On August 4, 2009, we reincorporated in Delaware as “Ohr Pharmaceutical, Inc.” On July 12, 2019, we completed a reverse merger transaction (the “Merger”) with NeuBase Corporation (formerly known as NeuBase

Therapeutics, Inc.), a Delaware corporation, and, upon completion of the Merger, we changed our name to “NeuBase Therapeutics, Inc.” Shares of our Common Stock commenced trading on the Nasdaq Capital Market under the ticker symbol “NBSE” as of market open on July 15, 2019. Our principal executive offices are located at 350 Technology Drive, Pittsburgh, PA 15219, and our telephone number is (646) 450-1790. Our website is located at www.neubasetherapeutics.com. Any information contained on, or that can be accessed through, our website is not incorporated by reference into, nor is it in any way part of, this prospectus and should not be relied upon in connection with making any decision with respect to an investment in our securities. We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may obtain any of the documents filed by us with the SEC at no cost from the SEC’s website at www.sec.gov.

RISK FACTORS

Investing in shares of our Common Stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and under “Risk Factors” in any applicable prospectus supplement and in our most recent Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q, as well as any amendments thereto, together with all of the other information appearing in or incorporated by reference into this prospectus and any applicable prospectus supplement, before deciding whether to purchase any of the shares of Common Stock being offered. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our Common Stock could decline due to any of these risks, and you may lose all or part of your investment.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus may contain 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”), about the Company and its subsidiaries. These forward-looking statements are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not statements of historical fact, and can be identified by the use of forward-looking terminology such as “believes,” “expects,” “may,” “will,” “could,” “should,” “projects,” “plans,” “goal,” “targets,” “potential,” “estimates,” “pro forma,” “seeks,” “intends” or “anticipates” or the negative thereof or comparable terminology. Forward-looking statements include discussions of strategy, financial projections, guidance and estimates (including their underlying assumptions), statements regarding plans, objectives, expectations or consequences of various transactions, and statements about the future performance, operations, products and services of the Company and its subsidiaries. We caution our stockholders and other readers not to place undue reliance on such statements.

You should read this prospectus and the documents incorporated by reference into this prospectus completely and with the understanding that our actual future results may be materially different from what we currently expect. Our business and operations are and will be subject to a variety of risks, uncertainties and other factors. Consequently, actual results and experience may materially differ from those contained in any forward-looking statements. Such risks, uncertainties and other factors that could cause actual results and experience to differ from those projected include, but are not limited to, the risk factors set forth in Part I – Item 1A, “Risk Factors,” in our Annual Report on Form 10-K for the year ended September 30, 2020, as filed with the SEC on December 23, 2020, the risk factors set forth in Part II – Item 1A “Risk Factors,” in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, as filed with the SEC on May 14, 2021, and elsewhere in the documents incorporated by reference into this prospectus.

You should assume that the information appearing in this prospectus, any applicable prospectus supplement, any related free writing prospectus and any document incorporated herein by reference is accurate as of its date only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. All written or oral forward-looking statements attributable to us or any person acting on our behalf made after the date of this prospectus are expressly qualified in their entirety by the risk factors and cautionary statements contained in and incorporated by reference into this prospectus. Unless legally required, we do not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We are filing the registration statement of which this prospectus forms a part to permit the Selling Stockholder to resell the Shares. We will not receive any proceeds from the sale of the Shares by the Selling Stockholder.

The Selling Stockholder will pay any underwriting discounts, selling commissions and stock transfer taxes and any similar expenses attributable to the sale of the Shares (except as otherwise set forth in the APA). We will bear all other costs, fees and expenses incurred in effecting the registration of the Shares covered by this prospectus. These may include, without limitation, all registration and filing and listing fees, printing fees, fees and disbursements of our counsel, blue sky fees and expenses, and expenses of our independent accountants in connection with any regular or special reviews or audits incident to or required by any registration.

SELLING STOCKHOLDER

The shares of Common Stock being offered by the Selling Stockholder are those held by the Selling Stockholder. For additional information regarding the issuances of those shares of Common Stock, see the section entitled “Summary—Asset Purchase Agreement” above. We are registering the Shares in order to permit the Selling Stockholder to offer the Shares for resale from time to time. Except for the transactions contemplated by the APA and the ownership of Shares, the Selling Stockholder has not had any material relationship with us within the past three years.

The table below describes the Selling Stockholder and information regarding the beneficial ownership of our Common Stock held, as of June 22, 2021, by the Selling Stockholder, the number of Shares being offered hereby, and information with respect to the shares of Common Stock to be beneficially owned by the Selling Stockholder after completion of this offering. The fourth column assumes the sale of all of the Shares offered by the Selling Stockholder pursuant to this prospectus. The percentages in the following table reflect the shares of Common Stock beneficially owned by the Selling Stockholder as a percentage of the total number of shares of Common Stock outstanding as of June 22, 2021. As of June 22, 2021, 32,716,827 shares of Common Stock were outstanding.

In accordance with the terms of the APA, this prospectus generally covers the resale of the maximum number of Shares as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the APA.

The Selling Stockholder may sell all, some or none of its Shares in this offering. See the section entitled "Plan of Distribution."

The percentages of shares beneficially owned prior to and after the offering are based on 32,716,827 shares of our Common Stock outstanding as of June 22, 2021, including shares of Common Stock covered hereby.

Name	Shares Beneficially Owned Prior to the Offering(1)		Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus	Shares Beneficially Owned After the Offering(1)(2)	
	Number	Percentage		Number	Percentage
Vera Therapeutics, Inc.	308,635(3)	0.9%	308,635	0	0%

- (1) Beneficial ownership is determined in accordance with Rule 13d-3 under the Exchange Act. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of Common Stock subject to warrants, options and other convertible securities held by that person that are currently exercisable or exercisable within 60 days of June 22, 2021 are deemed outstanding. Shares subject to warrants, options and other convertible securities, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other person.
- (2) Assumes that the Selling Stockholder disposes of all of the Shares covered by this prospectus and does not acquire beneficial ownership of any additional shares. The registration of these Shares does not necessarily mean that the Selling Stockholder will sell all or any portion of the shares covered by this prospectus.

- (3) Represents (i) 146,375 shares of Common Stock issued to the Selling Stockholder upon the closing of the transactions contemplated by the APA (the "Closing"), (ii) 54,070 shares of Common Stock issued to an escrow agent for the benefit of the Selling Stockholder upon the Closing, which shares are to be released 90 days following the Closing date, and (iii) 108,190 shares of Common Stock issued to an escrow agent for the benefit of the Selling Stockholder upon the Closing, which shares serve as collateral for the indemnification obligations of the Selling Stockholder under the APA and are to be released 18 months following the Closing date in accordance with the terms of an escrow agreement. Pursuant to the terms of the APA, the Selling Stockholder, for so long as it holds any of the outstanding shares of Common Stock it shall not, directly or indirectly, (a) sell, transfer or otherwise dispose of any such shares if (i) such sale, transfer or other disposition would exceed five percent of the average daily trading volume of Common Stock, as reported on The Nasdaq Stock Market LLC ("Nasdaq"), for the five consecutive trading days ending on the trading day immediately preceding such sale, transfer or other disposition, or (ii) the price at which such shares are sold, transferred or otherwise disposed of is less than the greater of (A) \$8.50 per share and (B) the volume weighted average closing price per share of Common Stock, as reported on Nasdaq, for the five consecutive trading days ending on the trading day immediately preceding such sale, transfer or other disposition, (b) enter into any swap, hedge, or other agreement or arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock, whether any such transaction is to be settled by delivery of Common Stock or other securities, in cash or otherwise; (c) engage in any short-selling of Common Stock.

Indemnification

Under the APA, we have agreed to indemnify the Selling Stockholder, its affiliates and permitted transferees against certain losses, claims, damages, liabilities, settlement costs and expenses, including certain liabilities under the Securities Act and the Exchange Act.

PLAN OF DISTRIBUTION

We are registering the Shares to permit the resale of these shares of Common Stock by the holders of the Shares from time to time after the date of this prospectus, subject to certain trading restrictions set forth in the APA. We will not receive any of the proceeds from the sale by the Selling Stockholder of the shares of Common Stock. We will bear all fees and expenses incident to our obligation to register the shares of Common Stock.

The Selling Stockholder may sell all or a portion of the shares of Common Stock beneficially owned by it and offered hereby from time to time, subject to certain trading restrictions set forth in the APA, directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the Selling Stockholder will be responsible for underwriting fees, discounts or commissions or agent's commissions. The shares of Common Stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices, in each case subject to certain trading restrictions set forth in the APA. The Selling Stockholder will act independently of us in making decisions with respect to the timing, manner and size of each sale. Except as otherwise prohibited under the APA, these sales may be effected in transactions, which may involve cross or block transactions:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing of options, whether such options are listed on an options exchange or otherwise;
- in ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

- in block trades in which the broker-dealer will attempt to sell the Shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- in an exchange distribution in accordance with the rules of the applicable exchange;
- in privately negotiated transactions;
- through the distribution of the Common Stock by the Selling Stockholder to its partners, members or stockholders;
- through one or more underwritten offerings on a firm commitment or best efforts basis;
- whereby broker-dealers may agree with the Selling Stockholder to sell a specified number of such shares at a stipulated price per share;
- in a combination of any such methods of sale; and
- in any other method permitted pursuant to applicable law.

In addition, any shares covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus.

If the Selling Stockholder effects such transactions by selling shares of Common Stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the Selling Stockholder or commissions from purchasers of the shares of Common Stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of Common Stock or otherwise, the Selling Stockholder, pursuant to the terms of the APA, may not (i) enter into hedging transactions with broker-dealers, (ii) engage in short sales of the shares of Common Stock, (iii) sell shares of Common Stock short or deliver shares of Common Stock covered by this prospectus to close out short positions, or (iv) return borrowed shares in connection with any short sales. The Selling Stockholder may loan or pledge shares of Common Stock to broker-dealers that in turn may sell such shares, subject to any restrictions that are otherwise applicable to the Selling Stockholder pursuant to the APA.

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The Selling Stockholder may pledge or grant a security interest in some or all of the shares of Common Stock owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the Selling Stockholder list to include the pledgee, transferee or other successors in interest as a Selling Stockholder under this prospectus. The Selling Stockholder also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The Selling Stockholder and any broker-dealer participating in the distribution of the shares of Common Stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of Common Stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of Common Stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the Selling Stockholder and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers. The Selling Stockholder may indemnify any broker-dealer that participates in transactions involving the sale of the shares of Common Stock against certain liabilities, including liabilities arising under the Securities Act.

Under the securities laws of some states, the shares of Common Stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Common Stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with. The aggregate proceeds to the Selling Stockholder from the sale of the Common Stock offered will be the purchase price of the Common Stock less discounts or commissions, if any. The Selling Stockholder reserves the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of Common Stock to be made directly or through agents. There can be no assurance that the Selling Stockholder will sell any or all of the shares of Common Stock registered pursuant to the registration statement of which this prospectus forms a part.

The Selling Stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of Common Stock by the Selling Stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of Common Stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of Common Stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

We will pay all expenses of the registration of the shares of Common Stock pursuant to the APA, estimated to be approximately \$90,169 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “Blue Sky” laws; provided, however, that a Selling Stockholder will pay all underwriting fees, discounts or commissions attributable to the sale of the Shares or any legal fees and expenses of counsel to the Selling Stockholder, if any. We will indemnify the Selling Stockholder against certain liabilities, including certain liabilities arising under the Securities Act or the Exchange Act. We may be indemnified by the Selling Stockholder against certain liabilities, including certain liabilities under the Securities Act or the Exchange Act, that may arise from any written information furnished to us by the Selling Stockholder specifically for use in this prospectus.

We have agreed with the Selling Stockholder to cause the registration statement of which this prospectus constitutes a part to remain effective until such time as all of the shares covered by this prospectus have been sold or may be sold freely without limitations or restrictions as to volume or manner of sale pursuant to Rule 144 under the Securities Act. Once sold under the registration statement, of which this prospectus forms a part, the shares of Common Stock will be freely tradable, subject to the trading restrictions set forth in the APA, in the hands of persons other than our affiliates.

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DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This

description is summarized from, and qualified in its entirety by reference to, our Amended and Restated Certificate of Incorporation, as amended (our “Certificate of Incorporation”), which has been publicly filed with the SEC. See the section entitled “Where You Can Find More Information.”

We are currently authorized to issue an aggregate of:

- 250,000,000 shares of common stock, \$0.0001 par value (“Common Stock”); and
- 10,000,000 shares of preferred stock, \$0.0001 par value (“Preferred Stock”).

Common Stock

As of June 22, 2021, there were 32,716,827 shares of Common Stock outstanding. Holders of our Common Stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval. Holders of Common Stock do not have any cumulative voting rights. Subject to any preferential rights of any outstanding Preferred Stock, in the event of our liquidation, dissolution or winding up, holders of Common Stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any outstanding Preferred Stock. Our Common Stock does not carry any redemption rights or any preemptive or preferential rights enabling a holder to subscribe for, or receive shares of, any class of our Common Stock or any other securities convertible into shares of any class of our Common Stock.

Dividends

We have never paid cash dividends on our Common Stock. Moreover, we do not anticipate paying periodic cash dividends on Common Stock for the foreseeable future. Any future determination about the payment of dividends will be made at the discretion of our board of directors and will depend upon its earnings, if any, capital requirements, operating and financial conditions and on such other factors as our board of directors deems relevant.

Preferred Stock

We currently have no outstanding shares of Preferred Stock. Under our Certificate of Incorporation, our board of directors has the authority, without further action by stockholders, to designate one or more series of Preferred Stock and to fix the voting powers, designations, preferences, limitations, restrictions and relative rights granted to or imposed upon the Preferred Stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be preferential to or greater than the rights of our Common Stock.

Our board of directors may authorize the issuance of Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Common Stock. The issuance of Preferred Stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control and may adversely affect the market price of the Common Stock and the voting and other rights of the holders of Common Stock.

Our board of directors may specify the following characteristics of any Preferred Stock:

- the designation and stated value, if any, of the class or series of Preferred Stock;
- the number of shares of the class or series of Preferred Stock offered, and the liquidation preference, if any, per share;
- the dividend rate(s), period(s) or payment date(s) or method(s) of calculation, if any, applicable to the class or series of Preferred Stock;
- whether dividends, if any, are cumulative or non-cumulative and, if cumulative, the date from which dividends on the class or series of Preferred Stock will accumulate;
- the provisions for a sinking fund, if any, for the class or series of Preferred Stock;
- the provision for redemption, if applicable, of the class or series of Preferred Stock;

- the terms and conditions, if applicable, upon which the class or series of Preferred Stock will be convertible into Common Stock, including the conversion price or manner of calculation and conversion period;
- voting rights, if any, of the class or series of Preferred Stock;
- the relative ranking and preferences of the class or series of Preferred Stock as to dividend rights and rights, if any, upon the liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any class or series of Preferred Stock ranking senior to or on a parity with the class or series of Preferred Stock as to dividend rights and rights, if any, upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the class or series of Preferred Stock.

Registration Rights

On January 27, 2021, we entered into the APA with NeuBase Corporation, our wholly owned subsidiary, and Vera Therapeutics, Inc. Pursuant to the terms of the APA, we acquired infrastructure, materials and intellectual property for peptide-nucleic acid (PNA) scaffolds from the Selling Stockholder for total consideration of approximately \$0.8 million in cash and 308,635 shares of common stock (of which 146,375 were to be issued to the Selling Stockholder and 162,260 will be held in escrow for the benefit of the Selling Stockholder and released to the Selling Stockholder in accordance with the terms of an escrow agreement between NeuBase Corporation and Vera, which agreement was entered into as of the closing of the transaction). The transaction closed on April 26, 2021, and we issued the Shares to the Selling Stockholder (or for the benefit of the Selling Stockholder) on that date.

In connection with the issuance and sale of the Shares, we granted certain registration rights with respect to the Shares, pursuant to the APA. As required by the APA, we agreed to, among other things, (i) file a registration statement under the Securities Act with the SEC to cover the resale of the Shares by the Selling Stockholder, (ii) use commercially reasonable efforts to cause such registration statement to become effective as soon as practicable after the filing thereof and (iii) keep such registration statement continuously effective in accordance with the terms of the APA. The registration statement of which this prospectus is a part relates to the resale of the Shares.

As required by the APA, we are registering 308,635 shares of Common Stock for resale pursuant to the registration statement of which this prospectus forms a part.

Anti-Takeover Effects of Provisions of the Company's Certificate of Incorporation and Delaware Law

Certain provisions of Delaware law and our Certificate of Incorporation contain provisions that could make the following transactions more difficult: acquisition of our company by means of a tender offer; acquisition of our company by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our capital stock.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of the Common Stock.

Undesignated Preferred Stock

The ability to authorize undesignated Preferred Stock will make it possible for our board of directors to issue Preferred Stock with voting or other rights or preferences that could impede the success of any attempt to change control of the Company. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Elimination of Stockholder Action by Written Consent

Our Certificate of Incorporation eliminates the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Our board of directors are divided into three classes. The directors in each class serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. At all meetings of stockholders for the election of directors, a plurality of the votes cast is sufficient to elect each director. Our Certificate of Incorporation provides for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least 66 2/3% of the voting power of the then outstanding voting stock. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders. This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of our company, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our Certificate of Incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a claim of breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our Certificate of Incorporation or our Amended and Restated Bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Such exclusive forum provision, however, does not apply to suits brought to enforce any liability or duty created by the Securities Act or the Exchange Act. Although our Certificate of Incorporation contains the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

Amendment of Charter Provisions

The amendment of any of the above provisions in our Certificate of Incorporation, except for the provision making it possible for our board of directors to issue undesignated Preferred Stock, would require approval by a stockholder vote by the holders of at least 66 2/3% of the voting power of the then outstanding voting stock.

The provisions of the Delaware General Corporation Law and our Certificate of Incorporation could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of the Common Stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Standard Registrar and Transfer Company. The transfer agent and registrar's address is 440 East 400 South, Suite 200, Salt Lake City, UT 84111.

Listing

Our Common Stock is listed on the Nasdaq Capital Market under the symbol "NBSE."

Unless otherwise indicated in the applicable prospectus supplement, the validity of the Common Stock offered by this prospectus, and any supplement thereto, will be passed upon for us by Paul Hastings LLP, Palo Alto, California.

EXPERTS

The consolidated financial statements of NeuBase as of September 30, 2020 and 2019, and for each of the two years in the period ended September 30, 2020 incorporated by reference in this prospectus have been so incorporated in reliance on the report of Marcum LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of Common Stock being offered under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the shares of Common Stock being offered under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including NeuBase Therapeutics, Inc. The SEC's Internet site can be found at www.sec.gov.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and persons controlling us pursuant to the provisions described in Item 15 of the registration statement of which this prospectus forms a part or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than our payment of expenses incurred or paid by our directors, officers, or controlling persons in the successful defense of any action, suit, or proceeding) is asserted by our directors, officers, or controlling persons in connection with the Common Stock being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of the issue.

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IMPORTANT INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this prospectus:

- (a) [The Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2020, filed with the SEC on December 23, 2020](#)
- (b) [The Registrant's Quarterly Report on Form 10-Q for the quarter ended December 31, 2020, filed with the SEC on February 11, 2021](#)
- (c) [The Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed with the SEC on May 14, 2021](#)
- (d) The Registrant's Current Reports on Form 8-K filed with the SEC on (i) [October 6, 2020](#), (ii) [December 2, 2020](#), (iii) [December 16, 2020](#) (other than with respect to information furnished under Item 7.01 therein); (iv) [March 26, 2021](#); (v) [April 22, 2021](#); (vi) [April 26, 2021](#); (vii) [April 27, 2021](#); (viii) [April 30, 2021](#); (ix) [May 12, 2021](#); (x) [May 20, 2021](#); and (xi) [May 25, 2021](#); and
- (e) [The description of the Registrant's common stock set forth in Exhibit 4.5 the Registrant's Annual Report on Form 10-K for the year ended September 30, 2019 \(File No. 001-35963\), filed with the SEC on January 10, 2020, including any amendments or reports filed for the purpose of updating such description.](#)

We also incorporate by reference any future filings (other than current reports 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 unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the shares of Common Stock made by this prospectus and such future filings will become a part of this prospectus from the respective dates that such documents are filed with the SEC. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof or of the related prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which is also incorporated or deemed to be incorporated herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

Documents incorporated by reference are available from us, without charge. You may obtain documents incorporated by reference in this prospectus by requesting them in writing or by telephone at the following address:

NeuBase Therapeutics, Inc.
350 Technology Drive
Pittsburgh, PA 15219
(646) 450-1790

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neubase

NEUBASE THERAPEUTICS, INC.

308,635 SHARES OF COMMON STOCK

PROSPECTUS

July 7, 2021

Neither we nor the Selling Stockholder have authorized any dealer, salesperson or other person to give any information or to make any representations not contained in this prospectus or any prospectus supplement. You must not rely on any unauthorized information. This prospectus is not an offer to sell these securities in any jurisdiction where an offer or sale is not permitted. The information in this prospectus is current as of the date of this prospectus. You should not assume that this prospectus is accurate as of any other date.
