Filed Pursuant to Rule 424(b)(5)
Registration No 333-283237

PROSPECTUS SUPPLEMENT
(To Prospectus dated November 22, 2024)

Up to $50,000,000
Common Stock

We have entered into an Open Market Sale Agreement℠ ("Sales Agreement") with Jefferies LLC ("Jefferies" or the "Sales Agent") relating to shares of our common stock, $0.001 par value per share, offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to $50,000,000 from time to time through the Sales Agent.

Our common stock is listed on The Nasdaq Capital Market ("Nasdaq") under the trading symbol "GYRE." On November 25, 2024, the last reported sale price of our common stock was $11.63 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus may be made in sales deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the "Securities Act"). The Sales Agent is not required to sell any specific number or dollar amounts of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between the Sales Agent and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The Sales Agent will be entitled to compensation at a commission of up to 3.0% of the aggregate gross sales price per share sold under the Sales Agreement. In connection with the sale of our common stock on our behalf, the Sales Agent will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of the Sales Agent will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contributions to the Sales Agent against certain civil liabilities, including liabilities under the Securities Act. See "Plan of Distribution" beginning on page S-16 of this prospectus supplement for additional information regarding the Sales Agent's compensation.

A significant portion of our business is operated through our indirectly majority-owned subsidiary in the People's Republic of China (the "PRC"), Beijing Continent Pharmaceutical Co., Ltd. (d/b/a Gyre Pharmaceuticals, Inc.) ("Gyre Pharmaceuticals"). Such structure involves unique legal and operational risks to investors in our common stock. In particular, the PRC government has significant authority to exert influence on the ability of a company with substantive operations in the PRC, such as us, to conduct its business, accept foreign investments or list on a U.S. or other foreign exchanges. For example, we face risks associated with regulatory approvals of offshore offerings, anti-monopoly regulatory actions, oversight on cybersecurity and data privacy. Such risks could result in a material change in our operations and/or the value of our common stock or could significantly limit or completely hinder our ability to offer or continue to offer our common stock to investors and cause the value of such common stock to significantly decline or become worthless. As we are a company with substantive business operations in the PRC, you should pay special attention to disclosures included in our most recent annual report on Form 10-K and other filings with the Securities and Exchange Commission ("SEC") incorporated by reference in this prospectus supplement and risk factors included herein.

In addition, our auditor is headquartered in mainland China, a jurisdiction where the Public Company Accounting Oversight Board ("PCAOB") was unable to conduct inspections without the approval of the PRC authorities. Trading in our common stock on the Nasdaq or over-the-counter may be prohibited, and as a result, our common stock may be delisted under the Holding Foreign Companies Accountable Act ("HFCAA") if the PCAOB determines that it has been unable to inspect or investigate completely our auditor located in the PRC for two consecutive years. On December 16, 2021, the PCAOB issued the HFCAA Determination Report to notify the SEC of its determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong, including our auditor. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. As a result, we were not identified as a "Commission-Identified Issuer" under the HFCAA upon filing of our annual report on Form 10-K for the year ended December 31, 2023. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections and investigations of PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control, including positions taken by authorities of the PRC.

The PCAOB is expected to continue to demand complete access to inspections and investigations against accounting firms headquartered in mainland China and Hong Kong in the future. The PCAOB is required under the HFCAA to make its determination on an annual basis with regards to its ability to inspect and investigate completely accounting firms based in the mainland China and Hong Kong. The possibility of being a "Commission-Identified Issuer" and risk of delisting could continue to adversely affect the trading price of our securities. If the PCAOB determines in the future that it no longer has full access to inspect and investigate accounting firms headquartered in mainland China and Hong Kong and we continue to use such accounting firm to conduct audit work, we would be identified as a "Commission-Identified Issuer" under the HFCAA following the filing of the annual report for the relevant fiscal year, and if we were so identified for two consecutive years, trading in our securities on U.S. markets would be prohibited under the HFCAA.

The PRC government has oversight over the conduct of our business and its laws, regulations and policies may affect our operations. The PRC government has recently published new policies that affected certain industries with respect to matters such as cybersecurity, data privacy, antitrust and competition, foreign investments, and overseas listings, and we cannot rule out the possibility that it will in the future release regulations or policies regarding our industry that could adversely affect our business, financial condition and results of operations. Furthermore, the PRC regulatory authorities have recently issued new laws and regulations to exert more oversight and control over overseas securities offerings and other capital markets activities and foreign investment in PRC-based companies. Any such action, once taken by the PRC regulatory authorities, could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or in extreme cases, become worthless. For additional information, see "Risk Factors - Risks Related to Our Business Operations in the PRC" in our most recent annual report on Form 10-K incorporated by reference in this prospectus supplement.

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should review carefully and consider all of the information set forth in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in this prospectus supplement. See "Risk Factors" beginning on page S-9 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

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

We are a "smaller reporting company" under the federal securities laws and are subject to reduced public company reporting requirements.

Jefferies

The date of this prospectus supplement is November 27, 2024.

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PROSPECTUS SUPPLEMENT

PROSPECTUS

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement that we have filed with the SEC utilizing a "shelf" registration process. Under the shelf registration statement, we may offer shares of our common stock, preferred stock, debt securities, warrants and units, including common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants, having an aggregate offering price of up to $150,000,000. Under this prospectus supplement, we may offer shares of our common stock having an aggregate offering price of up to $50,000,000 from time to time at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

We have not, and the Sales Agent has not, authorized any other person to provide you with any information or to make any representations other than those contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the Sales Agent take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the Sales Agent are not making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and any free writing prospectus that we may authorize 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 of this prospectus supplement captioned "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and the accompanying prospectus supplement outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We obtained the industry, market and competitive position data used throughout this prospectus supplement and in the documents incorporated by reference herein from our own internal estimates and research, as well as from industry and general publications, and research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of the industry and market, which we believe to be reasonable. In addition, while we believe the industry, market and competitive position data included in this prospectus supplement and in the documents

incorporated by reference herein is reliable and based on reasonable assumptions, we have not independently verified any third-party information, and all such data involve risks and uncertainties and are subject to change based on various factors, including those discussed in the section titled "Risk Factors" in this prospectus supplement and in the section titled "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023 and subsequent Quarterly Reports on Form 10-Q, which are incorporated by reference herein. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

This prospectus supplement, including the information incorporated by reference into this prospectus supplement, include trademarks, service marks and trade names owned by us or others. All trademarks, service marks and trade names included or incorporated by reference in this prospectus supplement or any related free writing prospectus are the property of their respective owners.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement or incorporated by reference in this prospectus supplement. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read the entire prospectus supplement, including the information incorporated by reference herein, the accompanying prospectus and any related free writing prospectus, carefully, including the section titled "Risk Factors" contained in this prospectus supplement, the accompanying prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement, and our financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2023, which are incorporated by reference herein, before making an investment decision. Some of the statements in this summary constitute forward-looking statements, see "Special Note Regarding Forward-Looking Statements." In this prospectus supplement, unless the context requires otherwise, references to "we," "us," "our," "Gyre" or the "company" refer Gyre Therapeutics, Inc., in each case together with its consolidated subsidiaries.

Our Company

Overview

We are a commercial-stage biotechnology company with a record of success in developing and commercializing small-molecule anti-inflammatory and anti-fibrotic drugs targeting organ diseases, focusing specifically on organ fibrosis. Fibrotic diseases represent a large patient population with significant unmet medical needs. Fibrosis involves a complex, multi-stage process with multiple pathways. While there are numerous potential targets for anti-fibrotic therapy, both established and emerging, addressing a single molecular pathway may not be sufficient to prevent, halt, or reverse fibrosis.

Our strategy is to use our experience in the successful development and commercialization of ETUARY® (Pirfenidone) to expand into new indications and develop similar drug candidates. Pirfenidone, the first anti-fibrotic drug approved for idiopathic pulmonary fibrosis ("IPF") in Japan, the European Union, the United States, and the PRC, is a small molecule drug that inhibits the synthesis of Transforming Growth Factor -ß1 ("TGF-ß1"), Tumor Necrosis Factor-α, and other fibrosis and inflammation modulators. We have obtained approval for ETUARY (pirfenidone) in the PRC for IPF.

Gyre Pharmaceuticals successfully advanced Pirfenidone from research and development to commercialization in the PRC for the treatment of IPF. In addition to IPF, Pirfenidone is undergoing three additional Phase 3 clinical trials for connective tissue disease-associated interstitial lung diseases (sclerosis-related interstitial lung disease and dermatomyositis-related interstitial lung disease) and pneumoconiosis to broaden its indications and market. In May 2024, Gyre Pharmaceuticals executed a comprehensive agreement with Jiangsu Wangao Pharmaceuticals Co., Ltd. to acquire the commercial rights to nintedanib, a small-molecule drug for the treatment of IPF. With this acquisition, we acquired the other product approved for the treatment of IPF, which is currently approved globally for the treatment of IPF. Nintedanib is expected to provide patients more choices and benefits, and further enhance Gyre Pharmaceuticals' leading position in the pulmonary fibrosis market. Gyre Pharmaceutical is planning to initiate commercialization of the nintedanib product in the PRC in 2025, which is anticipated to offset any declines in ETUARY sales as a result of the fluctuations in the Chinese economy significantly affecting demand for anti-fibrosis drugs and decreasing healthcare spending generally.

F351, our lead development candidate in both the United States and the PRC, is a structural derivative of ETUARY (Pirfenidone). It is a new oral chemical entity with an anti-fibrotic, TGF-ß1-targeting mechanism of action. Studies suggest that F351 and its major metabolites have minimal drug-drug interaction risks. We are prioritizing F351 for the treatment of liver fibrosis due to the large potential addressable market and significant unmet need.

Gyre Pharmaceuticals has completed a Phase 2 trial of F351 in the PRC for CHB-associated liver fibrosis. The Phase 2 trial showed that F351 was well-tolerated without notable toxicity and patients treated showed statistically-significant improvement of liver fibrosis, with the best efficacy results achieved at 270 mg/day dosing. Based on these results, a confirmatory Phase 3 trial is ongoing in the PRC with a primary endpoint of the reduction of the liver fibrosis score (Ishak Scoring System) by at least one stage after taking F351 in combination with Entecavir. In October 2024, the last patient completed the 52-week pivotal Phase 3 trial. Gyre Pharmaceuticals expects to report top-line data from this trial by the first quarter of 2025.

In the United States, we have completed a Phase 1 clinical trial of F351 in healthy volunteers. Following results from the PRC Phase 3 trial in CHB-associated liver fibrosis and pending approval of an investigational new drug application (an "IND" or "INDs") submission, we expect to initiate a Phase 2 trial to evaluate F351 for the treatment of metabolic dysfunction-associated steatohepatitis ("MASH")-associated liver fibrosis in 2025. We cannot guarantee that a Phase 2 trial will be initiated or estimate the funding needed for such trial at this time, but may need to raise additional capital to fund this program.

In parallel, we are also conducting a randomized, double-blind, placebo-controlled Phase 2 clinical trial in the PRC to assess the safety and efficacy of F573, a caspase inhibitor for the treatment of acute/acute on-chronic liver failure. In addition, in May 2024, we obtained the approval from the PRC's National Medical Products Administration ("NMPA") for the IND to launch a new clinical trial in the PRC of another new drug candidate, F230, a selective endothelin receptor agonist for the treatment of pulmonary arterial hypertension. We are preparing for the anticipated launch of the clinical trial in the PRC. We are also evaluating F528, a novel anti-inflammation agent that targets the inhibition of multiple inflammatory cytokines, in preclinical studies as a potential first-line therapy for the treatment of chronic obstructive pulmonary disease. In June 2024, Gyre Pharmaceuticals received approval from the NMPA for avatrombopag maleate tablets for the treatment of thrombocytopenia ("TP") associated with chronic liver disease ("CLD") in adult patients undergoing elective diagnostics procedures or therapy. TP is the most common hematologic complication in patients with CLD and can be life threatening in severe cases. Avatrombopag is an oral thrombopoietin receptor agonist. Avatrombopag was approved by the U.S. Food and Drug Administration for the treatment of adults with CLD-associated TP in May 2018, and its indication was subsequently expanded to include the treatment of immune thrombocytopenia in June 2019. Gyre Pharmaceuticals acquired avatrombopag under a transfer agreement with Nanjing Healthnice Pharmaceutical Technology, Co., Ltd. in June 2021 and is planning to start commercializing the avatrombopag product by the first half of 2025.

Risks Associated with our Business

Our business is subject to a number of risks that you should be aware of before making an investment decision. You should carefully consider all of the information set forth in this prospectus supplement and, in particular, you should evaluate the specific factors set forth under "Risk Factors" included elsewhere in this prospectus supplement, the accompanying prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement, including our Annual Report on Form 10-K for the year ended December 31, 2023 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, in deciding whether to invest in our common stock. Among these important risks are the following:

- Our business is significantly dependent on the sales of ETUARY®, our marketed product in the PRC, amid a competitive landscape, and there is a possibility that we may not be able to sustain or boost the sales volume, pricing, and profitability of ETUARY.
- There is a risk that our marketed product in the PRC, ETUARY, along with any other products that may receive approval in the future, may not attain sufficient market acceptance among physicians, healthcare facilities, pharmacies, patients, third-party payers, and the broader medical community, which is crucial for their commercial viability.
- The future of our business and financial outcomes is largely contingent on the progress and success of our product candidates in clinical and pre-clinical stages, such as ETUARY for future indications in the PRC, F573 in the PRC, and F351 in the PRC and in additional markets beyond the PRC. We face the risk of not being able to finalize their clinical development, secure necessary regulatory approvals, or accomplish their market launch successfully, or we may encounter substantial setbacks in these processes.
- To support the growth of our research and development activities and operations, we require further funding, which might not be obtainable on favorable terms or could be entirely unavailable. If we fail to secure the needed capital at the critical time, we might have to postpone, scale down, or halt some of our development projects, market introduction initiatives, or other operational aspects.

- The true market potential for our product and product candidates may be less than expected. Our expansion could be constrained by the current and emerging number of IPF patients in the PRC, pending the approval and profitable launch of expanded applications for ETUARY for future indications in the PRC, and our other product candidates.
- The approval procedures of the PRC Center for NMPA, U.S. Food & Drug Administration ("FDA"), and comparable foreign regulatory authorities are extensive, protracted, and inherently uncertain. Failure to secure necessary approvals, or encountering delays in the approval process, will prevent us from marketing our product candidates, such as ETUARY for future indications in the PRC, F573 in the PRC, and F351 in the PRC and in additional markets beyond the PRC, which may significantly affect our revenue generation.
- Should we or our licensors fail to secure, uphold, defend, or extend adequate patent and other intellectual property rights for our product, ETUARY, which is approved in the PRC, and any product candidates globally, or if the breadth of these intellectual property rights is insufficient, our ability to effectively compete in our markets could be compromised.
- We have established, and may continue to establish, collaborative agreements and strategic partnerships. However, there is no guarantee we will fully achieve the anticipated benefits from these collaborations, alliances, or licensing agreements, and conflicts could emerge with our present or prospective partners.
- Clinical drug development involves a lengthy and expensive process and outcomes are uncertain, and we may not successfully complete clinical trials for drugs under development, including ETUARY for future indications in the PRC, F573 in the PRC, and F351 in the PRC and in additional markets beyond the PRC, or demonstrate the safety and efficacy of our product candidates to the satisfaction of regulatory authorities.
- We are developing F351 for the treatment of liver fibrosis associated with MASH. The requirements for approval of F351 by the PRC Center for NMPA, FDA and comparable foreign regulatory authorities are unknown, may be difficult to predict, and may change over time, which makes it difficult to predict the timing and costs of clinical development and the likelihood of marketing approval.
- Our ongoing success is reliant on our capacity to retain key executives and to recruit, maintain, and inspire skilled professionals.
- If our intangible assets are impaired, our results of operations and financial condition may be adversely affected.
- Modifications to laws, regulations, and rules by the PRC government could lead to alterations in our operational processes and business approaches.
- There are uncertainties regarding the interpretation and enforcement of PRC laws, rules and regulations.
- The market price of our common stock is expected to be volatile.
- We may be unable to integrate successfully and realize the anticipated benefits of the Contributions.
- If we fail to maintain proper and effective internal controls over financial reporting our ability to produce accurate and timely financial statements could be impaired.
- We may identify material weaknesses or significant deficiencies in our internal control over financial reporting in the future or fail to maintain effective internal control over financial reporting, which may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations.
- We will continue to incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to compliance with regulations related to operating as a public company.

Risks Related to Our Business Operations in the PRC

Gyre Pharmaceuticals was founded in 2002 and is an innovative drug development enterprise in the PRC committed to the treatment of organ fibrosis diseases, integrated R&D, production and commercialization. Gyre Pharmaceuticals is our indirect, majority-owned subsidiary. Risks related to our business operations in the PRC

are included elsewhere in this prospectus supplement, the accompanying prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement, including our Annual Report on Form 10-K for the year ended December 31, 2023. Among these important risks are the following:

- Modifications to laws, regulations, and rules by the PRC government could lead to alterations in our operational processes and business approaches.
- The pharmaceutical industry in the PRC is highly regulated and such regulations are subject to change, which may affect approval and commercialization of our product, ETUARY, and product candidates.
- Adverse changes in political, economic and other policies of the PRC government could have a material adverse effect on the overall economic growth of the PRC, which could reduce the demand for our commercialized product, ETUARY, and any other future products, if approved, or otherwise materially and adversely affect our business, operations or competitive position.
- The PRC government may intervene in, influence or exert control over Gyre Pharmaceuticals' operations at any time, which could result in an adverse change in our operations.
- The enacted HFCAA and the "Accelerating Holding Foreign Companies Accountable Act" call for additional and more stringent criteria to be applied to emerging market companies upon assessing the qualification of their auditors, especially the non-U.S. auditors who are not inspected by the PCAOB. These developments could add uncertainties to the market for our common stock.
- There are uncertainties regarding the interpretation and enforcement of PRC laws, rules and regulations.
- Our operations are subject to and may be affected by changes in PRC tax laws and regulations.
- Changes in U.S. and PRC regulations may impact our business, our operating results and our ability to raise capital.
- The report and filing with the China Securities Regulatory Commission ("CSRC") will be required in connection with the offering under this prospectus supplement, and we cannot predict if we will be able to complete such report and filing process.

Post-Offering CSRC Filings Required for the Offering of Our Common Stock

On February 17, 2023, the CSRC promulgated the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies (the "Trial Measures") and five supporting guidelines, which came into effect on March 31, 2023 (together with any other supporting guidelines promulgated by the CSRC from time to time in connection therewith, the "Listing Guidelines").

Under the Trial Measures and Listing Guidelines, subsequent securities offerings of an issuer in the same overseas market where it has previously offered and listed securities shall be filed with the CSRC within three working days after offerings are completed.

As advised by our PRC legal counsel, JunHe LLP, we are required to submit the filing with the CSRC pursuant to the Trial Measures and Listing Guidelines in connection with the offering of securities under this prospectus supplement within three working days upon completion of the initial sale under this prospectus supplement, and upon completion of the final sale under, or upon termination of, the shelf registration statement of which this prospectus supplement and the accompanying prospectus form a part, we shall file a consolidated report with the CSRC on the offering of securities under the shelf registration statement. We intend to comply with such requirements imposed by the Trial Measures and Listing Guidelines.

Corporate Information

We were incorporated in Delaware in 1997 as a wholly-owned subsidiary of R.J. Reynolds Tobacco Company. In August 2000, we became an independent company when we issued and sold stock to venture capital investors. On August 20, 2015, pursuant to the merger agreement between Targacept, Inc. and Catalyst Biosciences, Inc. ("Private Catalyst"), we acquired Private Catalyst and on August 20, 2015, we changed our name from Targacept, Inc. to Catalyst Biosciences, Inc. On October 30, 2023, we consummated a business combination pursuant to which we acquired an indirect controlling interest in Gyre Pharmaceuticals. At the

closing, we changed our name from Catalyst Biosciences, Inc. to Gyre Therapeutics, Inc. Our principal executive offices are located at 12770 High Bluff Drive, Suite 150, San Diego, CA 92130, and our telephone number is (858) 567-7770. Our website address is www.gyretx.com. We do not incorporate the information on, or accessible through, our website into this prospectus supplement and the accompanying prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus supplement and the accompanying prospectus in deciding whether to purchase our shares of common stock.

Smaller Reporting Company Status

We are a "smaller reporting company" as defined in the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Based on the aggregate market value of our common stock held by non-affiliates as of June 30, 2024, we believe we will remain a smaller reporting company, but will become an "accelerated filer" as of December 31, 2024. Because we believe our non-accelerated filer status will expire on December 31, 2024, we will be required, pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, to include in our Annual Report on Form 10-K for the year ending December 31, 2024 an attestation report as to the effectiveness of our internal control over financial reporting that is issued by our independent registered public accounting firm. However, we expect to continue to take advantage of the reduced reporting requirements applicable to smaller reporting companies.

THE OFFERING

Common Stock Offered by Us	Shares of our common stock having an aggregate offering price of up to $50,000,000.
Common Stock to be Outstanding after this Offering	Up to 90,068,752 shares, assuming sales of 4,299,226 shares of our common stock in this offering at an assumed offering price of $11.63 per share, which was the last reported sale price of our common stock on Nasdaq on November 25, 2024. The actual number of shares issued will vary depending on the sales prices at which our common stock is sold under this offering.
Plan of Distribution	"At the market offering" that may be made from time to time through the Sales Agent. See "Plan of Distribution" on page S-16 of this prospectus supplement.
Use of Proceeds	We intend to use the net proceeds from this offering, if any, for research and development, manufacturing and scale-up, as well as for working capital and general corporate purposes. See "Use of Proceeds" on page S-13 of this prospectus supplement.
Risk Factors	You should read the "Risk Factors" section of this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement for a discussion of factors you should carefully consider before deciding to purchase shares of our common stock.
Nasdaq Symbol	"GYRE"

The number of our shares of common stock outstanding is based on 85,769,526 shares of common stock outstanding as of September 30, 2024, and excludes the following:

- 16,761,630 shares of common stock underlying options exercisable under our 2023 Omnibus Incentive Sub-Plan for Chinese Participants (the "2023 Sub-Plan") as of September 30, 2024, which includes 7,701,462 shares of common stock issued in the name of the Company to a stock plan administrator underlying options exercisable by PRC citizens under the 2023 Sub-Plan;
- 540,666 shares of common stock issuable upon the conversion of up to 811 shares of Series X Convertible Preferred Stock, par value $0.001 per share ("Convertible Preferred Stock"), issuable upon the exercise of warrants to purchase up to 811 shares of Convertible Preferred Stock, as of September 30, 2024;
- 1,783,990 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024 under our Gyre Therapeutics, Inc. 2023 Omnibus Incentive Plan (the "2023 Plan"), excluding stock options issued under our 2023 Sub-Plan, at a weighted-average exercise price of $11.02 per share; and
- 3,137,853 shares of our common stock reserved for future issuance under our 2023 Plan as of September 30, 2024.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options and no exercise of warrants to purchase, or subsequent conversion of, Convertible Preferred Stock subsequent to September 30, 2024.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks and uncertainties described below and discussed under the heading "Risk Factors" contained in our most recent Annual Report on Form 10-K, and in our subsequent Quarterly Reports on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus supplement in their entirety, together with other information in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering. The risks described in these documents are not the only ones we face, but those that we consider to be material. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below entitled "Special Note Regarding Forward-Looking Statements."

Additional Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. The failure by our management to utilize these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use to fund operations, our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value.

You may experience immediate and substantial dilution.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that 4,299,226 shares of our common stock are sold in this offering, based on an assumed sale price of $11.63 per share, the last sale price of a share of our common stock on Nasdaq on November 25, 2024, you will experience immediate dilution, representing the difference between the price you pay and our as adjusted net tangible book value per share as of September 30, 2024, after giving effect to this offering, of $10.10 per share. The exercise of outstanding stock options may result in further dilution of your investment. See the section titled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

You may experience future dilution as a result of future equity offerings.

To raise additional capital, we may in the future offer 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.

We do not intend to pay dividends in the foreseeable future. Accordingly, stockholders must rely on appreciation in the price of our common stock, if any, for any return on their investment.

We currently do not plan to pay any cash dividends in the foreseeable future. We currently plan to retain all of our future earnings, if any, to finance the operation, development and growth of our business. In addition, the terms of any future debt or credit agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. There is no guarantee that our common stock will appreciate or even maintain the price at which our holders have purchased it.

Future sales of a significant number of our shares of common stock in the public markets, or the perception that such sales could occur, could depress the market price of our shares of common stock or cause it to be highly volatile.

Sales of a substantial number of our shares of common stock in the public markets, or the perception that such sales could occur, could depress the market price of our shares of common stock or cause it to be highly volatile and impair our ability to raise capital through the sale of additional equity securities. A substantial number of shares of common stock are being offered by this prospectus supplement, and we cannot predict if and when shares sold in this offering, if any, will be resold in the public markets. We cannot predict the number of these shares that might be resold nor the effect that future resales of our shares of common stock would have on the market price of our shares of common stock.

It is not possible to predict the aggregate proceeds resulting from sales made under the Sales Agreement.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver placement notices to the Sales Agent at any time throughout the term of the Sales Agreement. The number of shares that are sold through the Sales Agent after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, any limits we may set with the Sales Agent in any applicable placement notice and the demand for our common stock. Because the price per share of each share sold pursuant to the Sales Agreement will fluctuate over time, it is not currently possible to predict the aggregate proceeds to be raised in connection with sales under the Sales Agreement.

Sales of common stock offered hereby will be in an "at the market offering," and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice delivered to the Sales Agent, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

The report and filing with the CSRC will be required in connection with the offering under this prospectus supplement, and we cannot predict if we will be able to complete such report and filing process.

On February 17, 2023, the CSRC promulgated the Trial Measures and Listing Guidelines, which came into effect on March 31, 2023. Under the Trial Measures and Listing Guidelines, subsequent securities offerings of an issuer in the same overseas market where it has previously offered and listed securities shall be filed with the CSRC within three working days after offerings are completed.

As advised by our PRC legal counsel, JunHe LLP, we are required to submit the filing with the CSRC pursuant to the Trial Measures and Listing Guidelines in connection with the offering of securities under this prospectus supplement within three working days upon completion of the initial sale under this prospectus supplement, and upon completion of the final sale under, or termination of, the shelf registration statement of which this prospectus supplement and the accompanying prospectus are a part, we shall file a consolidated report with the CSRC on the offering of securities under the shelf registration statement. We intend to comply with such requirements imposed by the Trial Measures and Listing Guidelines. We may face adverse actions or sanctions by the CSRC or other PRC regulatory agencies if we are unable to comply with such requirements, which may result in warnings, fines and penalties, and orders to rectify, and even restrictions on our operations, having to delist from a stock exchange outside of the PRC, the halting of securities offerings to foreign investors and other actions that could materially and adversely affect our operations and the interest of our investors and cause a significant depreciation in the price of our common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement contains "forward-looking statements" within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "estimate," "predict," "potential," "plan," "anticipate," "target," "forecast" or the negative of these terms, and similar expressions intended to identify forward-looking statements.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause our actual results to differ materially from the forward-looking statements expressed or implied in this prospectus supplement. Such risks, uncertainties and other factors include, among others, the factors disclosed in the section titled "Risk Factors" in this prospectus supplement and the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2023 and Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, which are incorporated by reference herein, and the following risks, uncertainties and factors:

- the ability of our clinical trials to demonstrate safety and efficacy of our product candidates and other positive results;
- our ability to develop a pipeline of product candidates to address unmet needs in the treatment of organ fibrosis and other inflammatory diseases;
- the timing, progress and results of clinical trials for F351 (Hydronidone) from the Phase 2a trial, F573 from the Phase 2 clinical trial, ETUARY from the Phase 2/3 clinical trial, and other product candidates we may develop, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the studies or trials will become available and research and development programs;
- the timing, scope and likelihood of regulatory filings and approvals, including timing of INDs and final U.S. Food & Drug Administration approval of F351 for the treatment of liver fibrosis associated with nonalcoholic steatohepatitis and chronic hepatitis B, ETUARY for the treatment of dermatomyositis-related interstitial lung disease and sclerosis-related interstitial lung disease, F528 for the treatment of chronic obstructive pulmonary disease, F230 for the treatment of pulmonary arterial hypertension, and any other future product candidates;
- the timing, scope or likelihood of foreign regulatory filings and approvals;
- our expectations regarding the future pursuit of product development efforts, including whether we will pursue such efforts, estimates regarding the expenses, future revenue, timing of any future revenue, capital requirements and need for additional financing related to such efforts, the timing of and our ability to pursue such efforts and our plans to develop and, if approved, subsequently commercialize any product candidates resulting from such efforts;
- our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our cash and investments;
- our ability to develop and advance current product candidates and programs into, and successfully complete, clinical studies;
- our manufacturing, commercialization and marketing capabilities and strategy;
- plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and sales strategy;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- the size of the market opportunity for our product candidates, including estimates of the number of patients who suffer from the diseases we are targeting;
- expectations regarding the approval and use of our product candidates in combination with other drugs;
- expectations regarding the potential for accelerated approval or other expedited regulatory designation;
- our competitive position and the success of competing therapies that are or may become available;

- estimates of the number of patients that we will enroll in our clinical trials;
- the beneficial characteristics and the potential safety, efficacy and therapeutic effects of our product candidates;
- our ability to obtain and maintain regulatory approval of our product candidates and our expectations regarding particular lines of therapy;
- plans relating to the further development of our product candidates, including additional indications we may pursue;
- existing regulations and regulatory developments in the PRC, the United States, Europe, and other jurisdictions;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering ETUARY, F351, F573, F528, and F230, and other product candidates we may develop, including the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- our continued reliance on third parties to conduct additional clinical trials of our product candidates and for the manufacture of our product candidates for clinical trials;
- our relationships with patient advocacy groups, key opinion leaders, regulators, the research community and payors;
- our ability to obtain and negotiate favorable terms of, any collaboration, licensing or other arrangements that may be necessary or desirable to develop, manufacture or commercialize our product candidates;
- the pricing and reimbursement of ETUARY, F351, F573, F528, and F230, and other product candidates we may develop, if approved;
- the rate and degree of market acceptance and clinical utility of F351, and other product candidates the Company may develop;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our financial performance;
- the period over which we estimate our existing cash will be sufficient to fund our planned operating expenses and capital expenditure requirements;
- expectations about the continued listing of our common stock on Nasdaq;
- the impact of laws and regulations;
- expectations regarding the period during which we will qualify as a smaller reporting company under the Exchange Act; and
- our expected use of net proceeds from this offering.

We caution you that the risks, uncertainties and other factors referred to above, elsewhere in this prospectus supplement and in the documents incorporated by reference herein may not contain all of the risks, uncertainties and other factors that may affect our future results and operations. Moreover, new risks will emerge from time to time. It is not possible for our management to predict all risks. In addition, we cannot assure you that we will realize the results, benefits or developments that we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our business in the way expected. Forward-looking statements are not historical facts, and reflect our current views with respect to future events. Given the significant uncertainties, you should evaluate all forward-looking statements made in this prospectus supplement in the context of these risks and uncertainties and not place undue reliance on these forward-looking statements as predictions of future events.

All forward-looking statements in this prospectus supplement apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this prospectus supplement. We disclaim any intent to publicly update or revise any forward-looking statements to reflect subsequent events or circumstances, except as required by law.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $50,000,000 from time to time. Because there is no minimum offering amount required pursuant to the Sales Agreement, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. Actual net proceeds will depend on the number of shares we sell and the prices at which such sales occur. There can be no assurance that we will sell any shares under or fully utilize the Sales Agreement with Jefferies as a source of financing.

We currently intend to use the net proceeds from the sale of the common stock offered by us hereunder, if any, for research and development, manufacturing and scale-up, as well as for working capital and general corporate purposes. We may also use a portion of the proceeds to license, acquire or invest in new programs or for drug development activities related to such programs, however, we have no current commitments to do so.

This expected use of net proceeds from this 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. The amounts and timing of our use of the net proceeds from this offering will depend on a number of factors, such as the timing and progress of our research and development efforts, the timing and progress of any partnering and commercialization efforts, technological advances and the competitive environment for our products. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from the sale of the securities offered by us hereunder. Accordingly, our management will have broad discretion in the timing and application of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

DILUTION

If you purchase common stock in this offering, your ownership interest will be diluted to the extent of the difference between the purchase price per share and the as adjusted net tangible book value per share after giving effect to this offering. We calculate net tangible book value per share by dividing the net tangible book value, which is total tangible assets less total liabilities, by the number of outstanding shares of our common stock. Dilution represents the difference between the portion of the amount per share paid by purchasers of shares in this offering and the as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering. Our net tangible book value as of September 30, 2024, was approximately $89.7 million, or $1.05 per share.

After giving effect to the assumed sale of 4,299,226 shares of our common stock at a sale price of $11.63 per share, the last sale price of our common stock on Nasdaq on November 25, 2024, after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2024, would have been $137.9 million, or $1.53 per share of common stock. This represents an immediate increase in the as adjusted net tangible book value of $0.48 per share to our existing stockholders and an immediate dilution of $10.10 per share to new investors purchasing shares in this offering. The following table illustrates this per share dilution:

Assumed offering price per share		$11.63
Net tangible book value per share as of September 30, 2024	$1.05	
Increase in net tangible book value per share attributable to new investors in offering	$0.48	
As adjusted net tangible book value per share as of September 30, 2024, after giving effect to this offering		$ 1.53
Dilution per share to new investors in this offering		$10.10

The above illustration of dilution per share to investors participating in this offering assumes no exercise of outstanding options to purchase our common stock.

Changes in the assumed public offering price of $11.63 per share would not affect our as adjusted net tangible book value after this offering because this offering is currently limited to $50,000,000. However, each $1.00 increase (decrease) in the assumed public offering price of $11.63 per share would increase (decrease) the dilution per share to new investors by approximately $0.99 per share ($0.99) per share, assuming that the aggregate dollar amount of shares offered by us, as set forth above, remains at $50,000,000 and after deducting the commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at the time of each offer and sale.

The number of our shares of common stock outstanding is based on 85,769,526 shares of common stock outstanding as of September 30, 2024, and excludes the following:

- 16,761,630 shares of common stock underlying options exercisable under our 2023 Sub-Plan as of September 30, 2024, which includes 7,701,462 shares of common stock issued in the name of the Company to a stock plan administrator underlying options exercisable by PRC citizens under the 2023 Sub-Plan;
- 540,666 shares of common stock issuable upon the conversion of up to 811 shares of Convertible Preferred Stock issuable upon the exercise of warrants to purchase up to 811 shares of Convertible Preferred Stock as of September 30, 2024;
- 1,783,990 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2024 under our 2023 Plan, excluding stock options issued under our 2023 Sub-Plan, at a weighted-average exercise price of $11.02 per share; and
- 3,137,853 shares of our common stock reserved for future issuance under our 2023 Plan as of September 30, 2024.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options and no exercise of warrants to purchase, or subsequent conversion of, Convertible Preferred Stock subsequent to September 30, 2024.

To the extent that options outstanding as of September 30, 2024, have been or are exercised, or other shares are issued, investors purchasing shares in this offering could 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 could result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into the Sales Agreement with Jefferies, under which we may offer and sell up to $50,000,000 of our shares of common stock from time to time through Jefferies, acting as sales agent, or directly to Jefferies, acting as principal. Sales of our shares of common stock, if any, under this prospectus supplement and the accompanying prospectus will be made by any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to issue and sell our shares of common stock under the Sales Agreement, we will notify Jefferies of the number of shares to be issued, the dates on which such sales are anticipated to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Jefferies, unless Jefferies declines to accept the terms of such notice, Jefferies has agreed to use its commercially reasonable efforts consistent with its normal sales and trading practices to sell such shares up to the amount specified on such terms. The obligations of Jefferies under the Sales Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and Jefferies is generally anticipated to occur on the second trading day following the date on which the sale was made, or on some other date that is agreed upon by us and Jefferies or that is required by SEC rule or industry practice. Sales of our shares of common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Jefferies may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Jefferies a commission of up to 3% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Jefferies for the fees and disbursements of its counsel, payable upon execution of the Sales Agreement, in an amount not to exceed $135,000, in addition to certain ongoing disbursements of its legal counsel. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Jefferies under the terms of the Sales Agreement, will be approximately $360,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Jefferies will provide written confirmation to us before the open on Nasdaq on the next trading day following each day on which our shares of common stock are sold under the Sales Agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

In connection with the sale of our shares of common stock on our behalf, Jefferies will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jefferies against certain civil liabilities, including liabilities under the Securities Act or the Exchange Act. We have also agreed to contribute to payments Jefferies may be required to make in respect of such liabilities.

The offering of our shares of common stock pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Sales Agreement and (ii) the termination of the Sales Agreement as permitted therein. We and Jefferies may each terminate the Sales Agreement at any time upon ten trading days' prior notice.

This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Sales Agreement is filed as an exhibit to a current report on Form 8-K filed under the Exchange Act and incorporated by reference in this prospectus supplement.

Jefferies and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they may in the future receive customary fees. In the course of its business, Jefferies may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Jefferies may at any time hold long or short positions in such securities.

This prospectus supplement and the accompanying prospectus in electronic format may be made available on a website maintained by Jefferies, and Jefferies may distribute this prospectus supplement and the accompanying prospectus electronically.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California. Jefferies is being represented in this offering with respect to certain legal matters of U.S. federal securities and New York state law by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York.

EXPERTS

The audited consolidated financial statements of Gyre Therapeutics, Inc. for the years ended December 31, 2023 and December 31, 2022 incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton Zhitong Certified Public Accountants LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The consolidated balance sheets of Catalyst Biosciences, Inc. as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus supplement for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, 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*.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. Information in this prospectus supplement and the accompanying prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement. We incorporate by reference into this prospectus supplement and the registration statement of which this prospectus supplement is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 27, 2024 (including the portions of our Definitive Proxy Statement on Schedule 14A filed on April 29, 2024 incorporated by reference therein) and our Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 30, 2023;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023, September 30, 2023, March 31, 2024, June 30, 2024 and September 30, 2024 filed with the SEC on May 15, 2023, August 14, 2023, October 26, 2023, May 13, 2024, August 13, 2024 and November 13, 2024, respectively;
- our Current Reports on Form 8-K and Form 8-K/A, as applicable, filed with the SEC on January 12, 2024, January 19, 2024, March 21, 2024 (excluding Items 7.01 and 9.01), March 26, 2024, May 8, 2024 (excluding Items 7.01 and 9.01), May 30, 2024 (excluding Items 7.01 and 9.01), June 17, 2024, July 5, 2024, and August 8, 2024 (excluding Items 7.01 and 9.01); and
- the description of our common stock attached as Exhibit 4.1 to our Annual Report on Form 10-K, for the year ended December 31, 2023, filed with the SEC on March 27, 2024, including any amendment or report 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 supplement is 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 securities made by this prospectus supplement, which will become a part of this prospectus supplement from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus supplement. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus supplement but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

Gyre Therapeutics, Inc.
12770 High Bluff Drive
Suite 150
San Diego, California 92130
(858) 567-7770

PROSPECTUS

COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
WARRANTS
UNITS

From time to time, we may issue, in one or more series or classes, up to $150,000,000 in aggregate principal amount of our common stock, preferred stock, debt securities, warrants and/or units, at prices and on terms that we will determine at the time of the offering.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement. If information in any prospectus supplement is inconsistent with the information in this prospectus, then the information in that prospectus supplement will apply and will supersede the information in this prospectus.

You should read this prospectus, the applicable prospectus supplement and any related free writing prospectus carefully, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

A significant portion of our business is operated through our indirectly majority-owned subsidiary in the People's Republic of China (the "PRC"), Beijing Continent Pharmaceutical Co., Ltd. (d/b/a Gyre Pharmaceuticals, Inc.) ("Gyre Pharmaceuticals"). Such structure involves unique legal and operational risks to investors in our common stock. In particular, the PRC government has significant authority to exert influence on the ability of a company with substantive operations in the PRC, such as us, to conduct its business, accept foreign investments or list on a U.S. or other foreign exchanges. For example, we face risks associated with regulatory approvals of offshore offerings, anti-monopoly regulatory actions, oversight on cybersecurity and data privacy. Such risks could result in a material change in our operations and/or the value of our common stock or could significantly limit or completely hinder our ability to offer or continue to offer our common stock to investors and cause the value of such common stock to significantly decline or become worthless. As we are a company with substantive business operations in the PRC, you should pay special attention to disclosures included in our most recent annual report on Form 10-K incorporated by reference in this prospectus and risk factors included herein.

In addition, our auditor is headquartered in mainland China, a jurisdiction where the Public Company Accounting Oversight Board ("PCAOB") was unable to conduct inspections without the approval of the PRC authorities. Trading in our common stock on the Nasdaq or over-the-counter may be prohibited, and as a result, our common stock may be delisted under the Holding Foreign Companies Accountable Act ("HFCAA") if the PCAOB determines that it has been unable to inspect or investigate completely our auditor located in the PRC for two consecutive years. On December 16, 2021, the PCAOB issued the HFCAA Determination Report to notify the Securities and Exchange Commission (the "SEC") of its determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong, including our auditor. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. As a result, we were not identified as a "Commission-Identified Issuer" under the HFCAA upon filing of our annual report on Form 10-K for the year ended December 31, 2023. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections and investigations of PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control, including positions taken by authorities of the PRC.

The PCAOB is expected to continue to demand complete access to inspections and investigations against accounting firms headquartered in mainland China and Hong Kong in the future. The PCAOB is required under the HFCAA to make its determination on an annual basis with regards to its ability to inspect and investigate completely accounting firms based in the mainland China and Hong Kong. The possibility of being a "Commission-Identified Issuer" and risk of delisting could continue to adversely affect the trading price of our securities. If the PCAOB determines in the future that it no longer has full access to inspect and investigate accounting firms headquartered in mainland China and Hong Kong and we continue to use such accounting firm to conduct audit work, we would be identified as a "Commission-Identified Issuer" under the HFCAA following the filing of the annual report for the relevant fiscal year, and if we were so identified for two consecutive years, trading in our securities on U.S. markets would be prohibited under the HFCAA.

The PRC government has oversight over the conduct of our business and its laws, regulations and policies may affect our operations. The PRC government has recently published new policies that affected certain industries with respect to matters such as cybersecurity, data privacy, antitrust and competition, foreign investments, and overseas listings, and we cannot rule out the possibility that it will in the future release regulations or policies regarding our industry that could adversely affect our business, financial condition and results of operations. Furthermore, the PRC regulatory authorities have recently issued new laws and regulations to exert more oversight and control over overseas securities offerings and other capital markets activities and foreign investment in PRC-based companies. Any such action, once taken by the PRC regulatory authorities, could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or in extreme cases, become worthless. For additional information, see "Risk Factors - Risks Related to Our Business Operations in the PRC" in our most recent annual report on Form 10-K incorporated by reference in this prospectus.

Our shares of common stock are listed on The Nasdaq Capital Market ("Nasdaq") under the symbol "GYRE." The last reported sale price of our common stock on Nasdaq on November 11, 2024 was $16.80 per share.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in this prospectus beginning on page 8 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

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.

Prospectus dated November 22, 2024

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC" or the "Commission") utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $150,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide 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 these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should carefully read both this prospectus and any prospectus supplement together with additional information under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We have not authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

Unless the context otherwise requires, we use the terms "Gyre," "company," "we," "us," and "our" in this prospectus to refer to Gyre Therapeutics, Inc. and, where appropriate, our subsidiaries.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical facts contained in this prospectus, including statements concerning our plans, objectives, goals, strategies, future events, future revenues or performance, financing needs, business trends and other information referred to in the section entitled "Risk Factors" in this prospectus and the sections entitled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2023, which is incorporated by reference herein, are forward-looking statements. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "estimate," "predict," "potential," "plan," "anticipate," "target," "forecast," or the negative of these terms, and similar expressions intended to identify forward-looking statements. Forward-looking statements are not historical facts and reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

There are a number of risks, uncertainties and other important factors that could cause our actual results to differ materially from the forward-looking statements contained in this prospectus. Such risks, uncertainties and other important factors include, among others, the risks, uncertainties and factors set forth in "Risk Factors," and the following risks, uncertainties and factors:

- the ability of our clinical trials to demonstrate safety and efficacy of our product candidates and other positive results;
- our ability to develop a pipeline of product candidates to address unmet needs in the treatment of organ fibrosis and other inflammatory diseases;
- the timing, progress and results of clinical trials for F351 (Hydronidone) from the Phase 2 trial, F573 from the Phase 2 clinical trial, ETUARY from the Phase 2/3 clinical trial, and other product candidates we may develop, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the studies or trials will become available and research and development programs;
- the timing, scope and likelihood of regulatory filings and approvals, including timing of investigational new drugs (an "IND" or "INDs") and final U.S. Food & Drug Administration approval of F351 for the treatment of liver fibrosis associated with metabolic dysfunction-associated steatohepatitis ("MASH") and chronic hepatitis B ("CHB"), ETUARY for the treatment of dermatomyositis-related interstitial lung disease ("DM-ILD") and sclerosis-related interstitial lung disease ("SSc-ILD"), F528 for the treatment of chronic obstructive pulmonary disease, F230 for the treatment of pulmonary arterial hypertension, and any other future product candidates;
- the timing, scope or likelihood of foreign regulatory filings and approvals;
- our expectations regarding the future pursuit of product development efforts, including whether we will pursue such efforts, estimates regarding the expenses, future revenue, timing of any future revenue, capital requirements and need for additional financing related to such efforts, the timing of and our ability to pursue such efforts and our plans to develop and, if approved, subsequently commercialize any product candidates resulting from such efforts;
- our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our cash and investments;
- our ability to develop and advance current product candidates and programs into, and successfully complete, clinical studies;
- our manufacturing, commercialization and marketing capabilities and strategy;
- plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and sales strategy;

- the need to hire additional personnel and our ability to attract and retain such personnel;
- the size of the market opportunity for our product candidates, including estimates of the number of patients who suffer from the diseases we are targeting;
- expectations regarding the approval and use of our product candidates in combination with other drugs;
- expectations regarding the potential for accelerated approval or other expedited regulatory designation;
- our competitive position and the success of competing therapies that are or may become available;
- estimates of the number of patients that we will enroll in our clinical trials;
- the beneficial characteristics and the potential safety, efficacy and therapeutic effects of our product candidates;
- our ability to obtain and maintain regulatory approval of our product candidates and our expectations regarding particular lines of therapy;
- plans relating to the further development of our product candidates, including additional indications we may pursue;
- existing regulations and regulatory developments in the PRC, the United States, Europe (the "EU"), and other jurisdictions;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering ETUARY, F351, F573, F528, and F230, and other product candidates we may develop, including the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- our continued reliance on third parties to conduct additional clinical trials of our product candidates and for the manufacture of our product candidates for clinical trials;
- our relationships with patient advocacy groups, key opinion leaders, regulators, the research community and payors;
- our ability to obtain and negotiate favorable terms of, any collaboration, licensing or other arrangements that may be necessary or desirable to develop, manufacture or commercialize our product candidates;
- the pricing and reimbursement of ETUARY, F351, F573, F528, and F230, and other product candidates we may develop, if approved;
- the rate and degree of market acceptance and clinical utility of F351, and other product candidates the Company may develop;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our financial performance;
- the period over which we estimate our existing cash will be sufficient to fund our planned operating expenses and capital expenditure requirements;
- expectations about the continued listing of our common stock on Nasdaq;
- the impact of laws and regulations; and
- expectations regarding the period during which we will qualify as a smaller reporting company under the Exchange Act.

There may be other factors that may cause our actual results to differ materially from the forward-looking statements, including factors disclosed in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q, which are incorporated by reference herein. You should evaluate all forward-looking statements made in this prospectus in the context of these risks and uncertainties.

These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this prospectus, any accompanying prospectus supplement, information incorporated by reference herein or therein, and any related free-writing prospectus. In addition, we cannot assure you that we will realize the results, benefits or developments that we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our business in the way expected. All forward-looking statements contained in this prospectus are made as of the date of hereof and we undertake no obligation to publicly update or review any forward-looking statements to reflect subsequent events or circumstances.

THE COMPANY

We are a commercial-stage biotechnology company with a record of success in developing and commercializing small-molecule anti-inflammatory and anti-fibrotic drugs targeting organ diseases, focusing specifically on organ fibrosis. Fibrotic diseases represent a large patient population with significant unmet medical needs. Fibrosis involves a complex, multi-stage process with multiple pathways. While there are numerous potential targets for anti-fibrotic therapy, both established and emerging, addressing a single molecular pathway may not be sufficient to prevent, halt, or reverse fibrosis.

Our strategy is to use our experience in the successful development and commercialization of ETUARY® (Pirfenidone) to expand into new indications and develop similar drug candidates. Pirfenidone, the first anti-fibrotic drug approved for idiopathic pulmonary fibrosis ("IPF") in Japan, the European Union, the United States, and the PRC, is a small molecule drug that inhibits the synthesis of Transforming Growth Factor -ß1 ("TGF-ß1"), Tumor Necrosis Factor-α, and other fibrosis and inflammation modulators. We have obtained approval for ETUARY (pirfenidone) in the PRC for IPF.

Gyre Pharmaceuticals successfully advanced Pirfenidone from research and development to commercialization in the PRC for the treatment of IPF. In addition to IPF, Pirfenidone is undergoing three additional Phase 3 clinical trials for connective tissue disease-associated interstitial lung diseases (sclerosis-related interstitial lung disease and dermatomyositis-related interstitial lung disease) and pneumoconiosis to broaden its indications and market. In May 2024, Gyre Pharmaceuticals executed a comprehensive agreement with Jiangsu Wangao Pharmaceuticals Co., Ltd. to acquire the commercial rights to nintedanib, a small-molecule drug for the treatment of IPF. With this acquisition, we acquired the other product approved for the treatment of IPF, which is currently approved globally for the treatment of IPF. Nintedanib is expected to provide patients more choices and benefits, and further enhance Gyre Pharmaceuticals' leading position in the pulmonary fibrosis market. Gyre Pharmaceutical is planning to initiate commercialization of the nintedanib product in the PRC in 2025, which is anticipated to offset any declines in ETUARY sales as a result of the fluctuations in the Chinese economy significantly affecting demand for anti-fibrosis drugs and decreasing healthcare spending generally.

F351, our lead development candidate in both the United States and the PRC, is a structural derivative of ETUARY (Pirfenidone). It is a new oral chemical entity with an anti-fibrotic, TGF-ß1-targeting mechanism of action. Studies suggest that F351 and its major metabolites have minimal drug-drug interaction risks. We are prioritizing F351 for the treatment of liver fibrosis due to the large potential addressable market and significant unmet need.

Gyre Pharmaceuticals has completed a Phase 2 trial of F351 in the PRC for CHB-associated liver fibrosis. The Phase 2 trial showed that F351 was well-tolerated without notable toxicity and patients treated showed statistically-significant improvement of liver fibrosis, with the best efficacy results achieved at 270 mg/day dosing. Based on these results, a confirmatory Phase 3 trial is ongoing in the PRC with a primary endpoint of the reduction of the liver fibrosis score (Ishak Scoring System) by at least one stage after taking F351 in combination with Entecavir. In October 2024, the last patient completed the 52-week pivotal Phase 3 trial. Gyre Pharmaceuticals expects to report top-line data from this trial by the first quarter of 2025.

In the United States, we have completed a Phase 1 clinical trial of F351 in healthy volunteers. Following results from the PRC Phase 3 trial in CHB-associated liver fibrosis and pending approval of an IND submission, we expect to initiate a Phase 2 trial to evaluate F351 for the treatment of MASH-associated liver fibrosis in 2025. We cannot guarantee that a Phase 2 trial will be initiated or estimate the funding needed for such trial at this time, but may need to raise additional capital to fund this program.

In parallel, we are also conducting a randomized, double-blind, placebo-controlled Phase 2 clinical trial in the PRC to assess the safety and efficacy of F573, a caspase inhibitor for the treatment of acute/acute on-chronic liver failure. In addition, in May 2024, we obtained the approval from the PRC's National Medical Products Administration ("NMPA") for the IND to launch a new clinical trial in the PRC of another new drug candidate, F230, a selective endothelin receptor agonist for the treatment of pulmonary arterial hypertension. We are preparing for the anticipated launch of the clinical trial in the PRC. We are also evaluating F528, a novel anti-inflammation agent that targets the inhibition of multiple inflammatory cytokines, in preclinical studies as a potential first-line therapy for the treatment of chronic obstructive pulmonary disease. In June 2024, Gyre Pharmaceuticals received approval from the NMPA for avatrombopag maleate tablets for the treatment of

thrombocytopenia ("TP") associated with chronic liver disease ("CLD") in adult patients undergoing elective diagnostics procedures or therapy. TP is the most common hematologic complication in patients with CLD and can be life threatening in severe cases. Avatrombopag is an oral thrombopoietin receptor agonist. Avatrombopag was approved by the U.S. Food and Drug Administration for the treatment of adults with CLD-associated TP in May 2018, and its indication was subsequently expanded to include the treatment of immune thrombocytopenia in June 2019. Gyre Pharmaceuticals acquired avatrombopag under a transfer agreement with Nanjing Healthnice Pharmaceutical Technology, Co., Ltd. ("Nanjing Healthnice") in June 2021 and is planning to start commercializing the avatrombopag product by the first half of 2025.

A significant portion of our business is operated through Gyre Pharmaceuticals. Such structure involves unique legal and operational risks to investors in our common stock. In particular, the PRC government has significant authority to exert influence on the ability of a company with substantive operations in the PRC, such as us, to conduct its business, accept foreign investments or list on a U.S. or other foreign exchanges. For example, we face risks associated with regulatory approvals of offshore offerings, anti-monopoly regulatory actions, oversight on cybersecurity and data privacy. Such risks could result in a material change in our operations and/or the value of our common stock or could significantly limit or completely hinder our ability to offer or continue to offer our common stock to investors and cause the value of such common stock to significantly decline or become worthless. As we are a company with substantive business operations in the PRC, you should pay special attention to disclosures included in our most recent annual report on Form 10-K incorporated by reference in this prospectus and risk factors included herein.

In addition, our auditor is headquartered in mainland China, a jurisdiction where the PCAOB was unable to conduct inspections without the approval of the Chinese authorities. Trading in our common stock on the Nasdaq or over-the-counter may be prohibited, and as a result, our common stock may be delisted under the HFCAA if the PCAOB determines that it has been unable to inspect or investigate completely our auditor located in the PRC for two consecutive years. On December 16, 2021, the PCAOB issued the HFCAA Determination Report to notify the SEC of its determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong, including our auditor. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. As a result, we were not identified as a "Commission-Identified Issuer" under the HFCAA upon filing of our annual report on Form 10-K for the year ended December 31, 2023. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections and investigations of PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control, including positions taken by authorities of the PRC.

The PCAOB is expected to continue to demand complete access to inspections and investigations against accounting firms headquartered in mainland China and Hong Kong in the future. The PCAOB is required under the HFCAA to make its determination on an annual basis with regards to its ability to inspect and investigate completely accounting firms based in the mainland China and Hong Kong. The possibility of being a "Commission-Identified Issuer" and risk of delisting could continue to adversely affect the trading price of our securities. If the PCAOB determines in the future that it no longer has full access to inspect and investigate accounting firms headquartered in mainland China and Hong Kong and we continue to use such accounting firm to conduct audit work, we would be identified as a "Commission-Identified Issuer" under the HFCAA following the filing of the annual report for the relevant fiscal year, and if we were so identified for two consecutive years, trading in our securities on U.S. markets would be prohibited under the HFCAA.

The PRC government has oversight over the conduct of our business and its laws, regulations and policies may affect our operations. The PRC government has recently published new policies that affected certain industries with respect to matters such as cybersecurity, data privacy, antitrust and competition, foreign investments, and overseas listings, and we cannot rule out the possibility that it will in the future release regulations or policies regarding our industry that could adversely affect our business, financial condition and results of operations. Furthermore, the PRC regulatory authorities have recently issued new laws and regulations to exert more oversight and control over overseas securities offerings and other capital markets activities and foreign investment in PRC-based companies. Any such action, once taken by the PRC regulatory authorities, could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and

cause the value of such securities to significantly decline or in extreme cases, become worthless. For additional information, see “Risk Factors - Risks Related to Our Business Operations in the PRC” in our most recent annual report on Form 10-K incorporated by reference in this prospectus.

Corporate Information

We were incorporated in Delaware in 1997 as a wholly-owned subsidiary of R.J. Reynolds Tobacco Company. In August 2000, we became an independent company when we issued and sold stock to venture capital investors. On August 20, 2015, pursuant to the merger agreement between Targacept, Inc. and Catalyst Biosciences, Inc. (“Private Catalyst”), we acquired Private Catalyst and on August 20, 2015, we changed our name from Targacept, Inc. to Catalyst Biosciences, Inc. On October 30, 2023, we consummated a business combination pursuant to which we acquired an indirect controlling interest in Gyre Pharmaceuticals. At the closing, we changed our name from Catalyst Biosciences, Inc. to Gyre Therapeutics, Inc. Our principal executive offices are located at 12770 High Bluff Drive, Suite 150, San Diego, CA 92130, and our telephone number is (858) 567-7770. Our website address is www.gyretx.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

RISK FACTORS

Investing in our securities involves risks. You should carefully consider the risks, uncertainties and other factors described in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, and in other documents which are incorporated by reference into this prospectus, as well as the risk factors and other information contained below or incorporated by reference into any accompanying prospectus supplement before investing in any of our securities. Our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected by any of these risks. The risks and uncertainties described in the documents incorporated by reference herein are not the only risks and uncertainties that you may face.

For more information about our SEC filings, please see "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

The PRC government may intervene in, influence or exert control over Gyre Pharmaceuticals' operations at any time, which could result in an adverse change in our operations.

The PRC government has some oversight and discretion over the conduct of our business in the PRC and may intervene in, influence or exert control over our operations as the government deems appropriate to further regulatory, political and societal goals. The PRC government has recently published new policies that significantly affected certain industries, and we cannot rule out the possibility that it will in the future do the same regarding our industry, including policies that could require us to seek permission from the PRC authorities to continue to operate our business in the PRC.

The central or local governments may impose new, stricter regulations or interpretations of existing regulations that would require additional expenditures and efforts on our part to ensure our compliance with such regulations or interpretations. For instance, regulations introduced by the NMPA concerning drug inspection, investigation, evidence collection and disposal are relatively new, and because of the limited volume of published judicial decisions, which are non-binding in nature, the interpretation and enforcement of these laws and regulations are uncertain. In addition, the implementation of laws and regulations may be in part based on government policies and internal rules that are subject to the interpretation and discretion of different government agencies (some of which are not published on a timely basis or at all) that may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until sometime after the violation. The imposition of new regulations or interpretations of existing regulations can occur quickly with little advance notice. We may incur penalties for any failure to comply with PRC laws and regulations. In addition, any litigation in the PRC, regardless of outcome, may be protracted and result in substantial costs and diversion of resources and management attention. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy. If we were to become subject to the direct intervention or influence of the PRC government at any time due to changes in laws or other unforeseeable reasons, it may require a material and potentially adverse change in our operations in the PRC.

Furthermore, the PRC government has indicated an intent to increase oversight and control over offerings of companies with significant operations in the PRC that are to be conducted in foreign markets. For example, in July 2021, the relevant PRC government authorities made public the Opinions on Strictly Scrutinizing Illegal Securities Activities in Accordance with the Law. These opinions emphasized the need to strengthen the administration over illegal securities activities and the supervision of overseas listings by China-based companies and proposed to take effective measures, such as promoting the construction of relevant regulatory systems to deal with the risks and incidents faced by China-based overseas-listed companies. In February 2023, the China Securities Regulatory Commission (the "CSRC") released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Enterprises (the "Trial Measures"), which came into effect on March 31, 2023. The Trial Measures comprehensively improve and reform the existing regulatory regime for overseas offering and listing of PRC domestic companies' securities and regulate both direct and indirect overseas offering and listing of PRC domestic companies' securities by adopting a filing-based regulatory regime.

In February 2023, the CSRC and other PRC governmental authorities jointly issued the Provisions on Strengthening the Confidentiality and Archives Administration of Overseas Securities Offering and Listing by Domestic Companies (the "Confidentiality Provisions"), which came into effect on March 31, 2023. According

to the Confidentiality Provisions, PRC domestic companies that directly or indirectly conduct overseas offerings and listings shall strictly abide by the laws and regulations on confidentiality when providing or publicly disclosing, whether directly or through their overseas listed entities, materials to securities services providers. In the event such materials contain state secrets or working secrets of government agencies, PRC domestic companies shall first obtain approval from authorities, and file with the secrecy administrative department at the same level with the approving authority; in the event that such materials, if divulged, will jeopardize national security or public interest, PRC domestic companies shall comply with procedures stipulated by national regulations. Given the recent nature of the introduction of the Trial Measures and the Confidentiality Provisions, there remains significant uncertainty as to the interpretation and implementation of regulatory requirements related to overseas securities offerings and other capital markets activities.

If (i) we mistakenly conclude that certain regulatory filings, permissions and approvals are not required or (ii) applicable laws, regulations, or interpretations change and (iii) we are required to obtain such filings, permissions or approvals in the future, we may be unable to obtain them in a timely manner, or at all, and such filings, permissions or approvals may be denied or rescinded even if obtained. We may face adverse actions or sanctions by the CSRC or other PRC regulatory agencies if we are unable to comply with such requirements, which may result in fines and penalties, restrictions on our operations, having to delist from a stock exchange outside of China, the halting of securities offerings to foreign investors and other actions that could materially and adversely affect our operations and the interest of our investors.

In addition, the risks that the PRC government may intervene or influence our operations in the PRC at any time could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless.

The enacted "Holding Foreign Companies Accountable Act" and the "Accelerating Holding Foreign Companies Accountable Act" call for additional and more stringent criteria to be applied to emerging market companies upon assessing the qualification of their auditors, especially the non-U.S. auditors who are not inspected by the PCAOB. These developments could add uncertainties to the market for our common stock.

The HFCAA requires certain issuers of securities to establish that they are not owned or controlled by a foreign government. Specifically, an issuer must make this certification if the PCAOB is unable to audit specified reports because the issuer has retained a foreign public accounting firm not subject to inspection by the PCAOB. Furthermore, if the PCAOB is unable to inspect the issuer's public accounting firm for three consecutive years, the issuer's securities are banned from trading on a national exchange or through other methods. In December 2022, the AHFCAA amended the HFCAA by decreasing the number of non-inspection years from three to two, thus reducing the time period before our common stock may be prohibited from trading or delisted if the PCAOB were to determine that it could not inspect our auditor.

In March 2021, the SEC adopted interim final amendments to implement congressionally mandated submission and disclosure requirements of the HFCAA. The interim final amendments will apply to registrants that the SEC identifies as having filed an annual report on Forms 10-K, 20-F, 40-F or N-CSR with an audit report issued by a registered public accounting firm that is located in a foreign jurisdiction and that the PCAOB has determined it is unable to inspect or investigate completely because of a position taken by an authority in that jurisdiction. In December 2021, the SEC adopted amendments finalizing such rules to require that any such identified registrant is required to submit documentation to the SEC establishing that it is not owned or controlled by a governmental entity in that foreign jurisdiction, and is also required to disclose in the registrant's annual report the audit arrangements of, and governmental influence on, such a registrant.

In December 2021, the PCAOB issued a Determination Report which found that the PCAOB was then unable to inspect or investigate completely registered public accounting firms headquartered in: (1) mainland China of the PRC, because of a position taken by one or more authorities in mainland China; and (2) Hong Kong, a Special Administrative Region and dependency of the PRC, because of a position taken by one or more authorities in Hong Kong. The PCAOB has made such designations as mandated under the HFCAA. Pursuant to each annual determination by the PCAOB, the SEC will, on an annual basis, identify issuers that have used non-inspected audit firms and thus are at risk of such suspensions in the future.

In August 2022, the CSRC, the Ministry of Finance of the PRC, and the PCAOB signed a Statement of Protocol (the "Protocol"), governing inspections and investigations of audit firms based in the PRC and Hong Kong. Pursuant to the Protocol, the PCAOB shall have independent discretion to select any issuer audits

for inspection or investigation and has the unfettered ability to transfer information to the SEC. In December 2022, the PCAOB determined that the PCAOB was able to secure complete access to inspect and investigate registered public accounting firms headquartered in mainland China and Hong Kong and voted to vacate its previous determinations to the contrary. However, should PRC authorities obstruct or otherwise fail to facilitate the PCAOB's access in the future, the PCAOB will consider the need to issue a new determination. Notwithstanding the foregoing, if the PCAOB is not able to inspect and investigate completely our auditor's work papers in China, you may be deprived of the benefits of such inspection which could result in limitation or restriction to our access to the U.S. capital markets and trading of our securities may be prohibited under the HFCAA.

Our auditor, Grant Thornton Zhitong Certified Public Accountants LLP, an independent public accounting firm registered with the PCAOB, and an auditor of publicly traded companies in the U.S., is subject to laws in the U.S. pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor is headquartered in mainland China and was inspected by the PCAOB for the first time in July 2024 and was identified as a firm subject to the determinations announced by the PCAOB in December 2021. Should the PCAOB be unable to fully conduct inspection of our auditor's work papers in mainland China, it will make it difficult to evaluate the effectiveness of our auditor's audit procedures or equity control procedures. Investors may consequently lose confidence in our reported financial information and procedures or quality of the financial statements, which would adversely affect us and our securities. Moreover, if trading in our securities is prohibited under the HFCAA in the future because the PCAOB determines that it cannot inspect or fully investigate our auditor at such future time, if our securities were then traded on an exchange, that exchange may determine to delist our securities.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Unless otherwise specified in a prospectus supplement accompanying this prospectus, the net proceeds from the sale by us of the securities to which this prospectus relates will be used for development, manufacturing and scale-up, as well as for working capital and general corporate purposes. We may also use a portion of the proceeds to license, acquire or invest in new programs or for drug development activities related to such programs, however, we have no current commitments to do so. Our expected use of proceeds from the sale of the securities offered hereby represents our current intentions based on our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds to be received from the sale of the securities offered hereby or the amounts that we will actually spend on the uses set forth above.

Pending the use of the net proceeds, we may invest the proceeds in interest-bearing, investment-grade securities, certificates of deposit or government securities. When we offer and sell the securities to which this prospectus relates, the prospectus supplement related to such offering will set forth our intended use of the proceeds, if any, received from the sale of such securities.

DIVIDEND POLICY

We have no present intention to pay cash dividends on our common stock for the foreseeable future. Any determination to pay dividends to holders of our common stock will be at the discretion of our board of directors and will depend on many factors, including our financial condition, results of operations, liquidity, earnings, projected capital and other cash requirements, legal requirements, restrictions in the agreements governing any indebtedness we may enter into, business prospects and other factors that our board of directors deems relevant.

SECURITIES WE MAY OFFER

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.

DESCRIPTION OF SECURITIES

The following is a summary of the material terms of our capital stock, as well as other material terms of certain provisions of Delaware law, our restated certificate of incorporation (as amended from time to time, our "certificate of incorporation"), and our amended and restated bylaws (as amended from time to time, our "bylaws"). This summary does not purport to be complete and is qualified in its entirety by the provisions of our certificate of incorporation and our bylaws. For more information on how you can obtain our certificate of incorporation and our bylaws, see the heading "Where You Can Find Additional Information."

Our authorized capital stock consists of 400,000,000 shares of common stock, par value $0.001 per share, and 5,000,000 shares of preferred stock, par value $0.001 per share.

As of September 30, 2024, 85,769,526 shares of our common stock were issued and outstanding, which excludes 7,701,462 shares issued in Gyre's name to a stock plan administrator.

Common Stock

Our certificate of incorporation authorizes the issuance of up to 400,000,000 shares of our common stock. All outstanding shares of our common stock are validly issued, fully paid and nonassessable.

Dividends

Subject to preferential dividend rights of any other class or series of stock, the holders of shares of our common stock are entitled to receive dividends, including dividends of our stock, as and when declared by our board of directors, subject to any limitations imposed by law and to the rights of the holders, if any, of our preferred stock. On September 20, 2022, we paid a special, one-time cash dividend of approximately $45.0 million (or $1.43 per share) to our common stockholders of record as of the close of business on September 6, 2022. On January 12, 2023, we paid a special, one-time cash dividend of approximately $7.6 million (or $0.24 per share) to our common stockholders of record as of the close of business on January 5, 2023. In June 2023, we distributed $3.5 million, which reflected, in connection with an asset purchase agreement with Vertex Pharmaceuticals Inc. ("Vertex"), the hold-back amount received from Vertex less expenses and a reserve for potential tax liabilities, to holders of the contingent value rights ("CVRs") distributed to our stockholders of record on January 5, 2023 pursuant to the Contingent Value Rights Agreement, dated December 26, 2022, as amended on March 29, 2023 (as amended, the "CVR Agreement"). As of September 30, 2024, the CVR holders have received all requisite cash payable under the CVR Agreement and there are no outstanding distributions. We do not anticipate paying periodic cash dividends on our 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 our earnings, if any, capital requirements, operating and financial conditions and on such other factors as the board of directors deems relevant.

Liquidation

In the event we are liquidated, dissolved or our affairs are wound up, after we pay or make adequate provision for all of our known debts and liabilities, each holder of our common stock will be entitled to share ratably in all assets that remain, subject to any rights that are granted to the holders of any class or series of preferred stock.

Voting Rights

For all matters submitted to a vote of stockholders, each holder of our common stock is entitled to one vote for each share registered in his or her name. Except as may be required by law and in connection with some significant actions, such as mergers, consolidations, or amendments to our restated certificate of incorporation that affect the rights of stockholders, holders of our common stock vote together as a single class. There is no cumulative voting in the election of our directors, which means that, subject to any rights to elect directors that are granted to the holders of any class or series of preferred stock, a plurality of the votes cast at a meeting of stockholders at which a quorum is present is sufficient to elect a director.

Other Rights and Restrictions

Subject to the preferential rights of any other class or series of stock, all shares of our common stock have equal dividend, distribution, liquidation and other rights, and have no preference, appraisal or exchange rights,

except for any appraisal rights provided by Delaware law. Furthermore, holders of our common stock have no conversion, sinking fund or redemption rights, or preemptive rights to subscribe for any of our securities. Our restated certificate of incorporation and our bylaws do not restrict the ability of a holder of our common stock to transfer his or her shares of our common stock.

The rights, powers, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of preferred stock which we may designate and issue in the future.

Listing

Our common stock is listed on Nasdaq under the symbol "GYRE."

Transfer Agent and Registrar

The transfer agent for our common stock is Equiniti Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219.

Description of Preferred Stock

Under our restated certificate of incorporation, we have authority, subject to any limitations prescribed by law and without further stockholder approval, to issue from time to time up to 5,000,000 shares of preferred stock, par value $0.001 per share, in one or more series. On December 22, 2022, we designated 123,418 shares of our preferred stock as "Series X Convertible Preferred Stock" (hereinafter referred to as, "Convertible Preferred Stock") pursuant to the Certificate of Designation of Preferences, Rights and Limitations of Series X Convertible Preferred Stock, filed with the Secretary of State of the State of Delaware on December 27, 2022, as amended on October 30, 2023 (as amended, "Certificate of Designation"). On October 30, 2023, we designated 811 shares of our preferred stock as Convertible Preferred Stock. As of September 30, 2024, there were no shares of preferred stock issued and outstanding.

Pursuant to our restated certificate of incorporation, we are authorized to issue "blank check" preferred stock, which may be issued from time to time in one or more series upon authorization by our board of directors. Our board of directors, without further approval of the stockholders, is authorized to fix the designation, powers, preferences, relative, participating optional or other special rights, and any qualifications, limitations and restrictions applicable to each series of the preferred stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes could, among other things, adversely affect the voting power or rights of the holders of our common stock and, under certain circumstances, make it more difficult for a third party to gain control of us, discourage bids for our common stock at a premium or otherwise adversely affect the market price of the common stock.

Series X Convertible Preferred Stock

Conversion

Under our restated certificate of incorporation, effective as of 5:00 p.m. (New York City time) on August 31, 2023 (the second business day after the date on which stockholder approval was received), each holder of Convertible Preferred Stock may, at its option, effect conversions of Convertible Preferred Stock then outstanding into approximately 10,000 of common stock, subject to certain beneficial ownership limitations, including that a holder of Convertible Preferred Stock is prohibited from converting shares of Convertible Preferred Stock into shares of common stock if, as a result of such conversion, such holder, together with its affiliates, would beneficially own more than a specified percentage (to be initially set at 9.99% and thereafter adjusted by the holder between to a number between 4.99% and 19.99%) of the total number of shares of common stock issued and outstanding immediately after giving effect to such conversion.

Voting Rights

Except as otherwise provided in the Certificate of Designation or as otherwise required by the Delaware General Corporation Law ("DGCL"), Convertible Preferred Stock does not have voting rights. However, as long as any shares of Convertible Preferred Stock are outstanding, in addition to any other requirement of the DGCL or our restated certificate of incorporation, we shall not, without the affirmative vote of the holders of a majority

of the then outstanding shares of Convertible Preferred Stock, (i) alter or change adversely the powers, preferences or rights given to Convertible Preferred Stock or alter or amend the Certificate of Designation, amend or repeal any provision of or add any provision to, our restated certificate of incorporation or our bylaws, or file any articles of amendment, certificate of designations, preferences, limitations and relative rights of any series of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of Convertible Preferred Stock, regardless of whether any of the foregoing actions shall be by means of amendment to our restated certificate of incorporation or by merger, consolidation or otherwise, (ii) issue further shares of Convertible Preferred Stock or increase or decrease (other than by conversion) the number of authorized shares of Convertible Preferred Stock, (iii) at any time while at least 30% of the originally issued Convertible Preferred Stock remains issued and outstanding, consummate either: (A) any Fundamental Transaction (as defined in the Certificate of Designation) or (B) any merger or consolidation of the Company with or into another entity or any stock sale to, or other business combination in which our stockholders immediately before such transaction do not hold at least a majority of the capital stock of the Company immediately after such transaction, or (iv) enter into any agreement with respect to any of the foregoing.

Dividends

Holders of Convertible Preferred Stock shall be entitled to receive when, as and if dividends are declared and paid on shares of common stock, an equivalent dividend (with the same dividend declaration date and payment date), calculated on an as-converted basis without regard to the Beneficial Ownership Limitation (as defined in the Certificate of Designation); provided, however, in no event shall holders of Convertible Preferred Stock be entitled to receive (a) the "rights" distributed pursuant to the CVR Agreement or any amounts paid under the CVR Agreement, or (b) cash distributions declared by us on or prior to the closing of the transactions contemplated by the Business Combination Agreement, dated as of December 26, 2022, as amended on March 29, 2023 and August 30, 2023, by and among us, GNI USA, Inc., a Delaware corporation, GNI Group Ltd., a company incorporated under the laws of Japan with limited liability, GNI Hong Kong Limited, a company incorporated under the laws of Hong Kong with limited liability, Shanghai Genomics, Inc., a company organized under the laws of the People's Republic of China, the Minority Holders (as defined therein) and Continent Pharmaceuticals Inc., a Cayman Islands company limited by shares.

Liquidation

Convertible Preferred Stock ranks (i) senior to any class or series of our capital stock hereafter created specifically ranking by its terms junior to any Convertible Preferred Stock; (ii) on parity with our common stock and any class or series of our capital stock hereafter created specifically ranking by its terms on parity with Convertible Preferred Stock; and (iii) junior to (A) any class or series of our capital stock hereafter created specifically ranking by its terms senior to any Convertible Preferred Stock or (B) any "rights" distributed pursuant to the CVR Agreement or any amounts paid under the CVR Agreement, in each case, as to distributions of assets upon our liquidation, dissolution or winding up, whether voluntarily or involuntarily.

Certain Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval, subject to any limitations imposed by the listing requirements of Nasdaq. We may issue these additional shares for a variety of corporate purposes, including future public or private offerings to raise additional capital or to facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved preferred stock may enable our board of directors to issue shares of preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that holders of common stock will receive dividend payments or payments upon liquidation.

Anti-Takeover Effects of Provisions of Our Charter Documents

Our restated certificate of incorporation provides for our board of directors to be divided into three classes serving staggered terms. Approximately one-third of our board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of the outstanding

voting stock from obtaining control of the board of directors until the second annual stockholders meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of the Company and could increase the likelihood that incumbent directors will retain their positions. Our restated certificate of incorporation provides that directors may be removed with or without cause only by the affirmative vote of the holders of at least 66 2/3% of the voting power of all outstanding stock entitled to vote in the election of directors, voting together as a single class.

Our restated certificate of incorporation requires that certain amendments to the restated certificate of incorporation and amendments by the stockholders of our bylaws require the affirmative vote of holders of at least 66 2/3% of the then outstanding stock entitled to vote generally in the election of directors, voting together as a single class. These provisions could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of the Company and could delay changes in management.

Our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual stockholders meeting, including proposed nominations of persons for election to our board of directors. At an annual stockholders meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to the Secretary of the Company timely written notice, in proper form, of his or her intention to bring that business before the annual stockholders meeting. Our bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

Our bylaws provide that only our board of directors, the chairperson of the board, the President or the Chief Executive Officer may call a special meeting of stockholders. Because our stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of our board of directors by calling a special meeting of stockholders prior to such time as a majority of our board of directors, the chairperson of the board, the President or the Chief Executive Officer believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual stockholders meeting.

Our restated certificate of incorporation does not allow stockholders to act by written consent without a meeting. Without the availability of stockholder's actions by written consent, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a stockholders' meeting.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the DGCL ("Section 203"). Under Section 203, we would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by our board of directors and authorized at a special or annual stockholders meeting, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder, subject to limited 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; or
- 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 an 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 such entity or person.

Limitation of Liability and Indemnification

Our restated certificate of incorporation provides that our directors and officers shall not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director or officer, respectively, except for liability for breach of the director's or officers', respectively, duty of loyalty to us or our stockholders, for acts or omissions not in good faith or involving intentional misconduct or a knowing violation of law, for payment of dividends or approval of stock purchases or redemptions that are prohibited by the DGCL, or for any transaction from which the director or officer, respectively, derived an improper personal benefit. Under the DGCL, our directors and officers have a fiduciary duty to us that is not eliminated by this provision of the restated certificate of incorporation and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available. This provision also does not affect our directors' or officers' responsibilities under any other laws, such as federal securities laws or state or federal environmental laws.

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties by reason of the fact that they were or are directors or officers of the corporation, if they acted in good faith, in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe that their conduct was unlawful. The DGCL provides further that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. Our restated certificate of incorporation provides that, to the fullest extent permitted by Section 145 of the DGCL, we shall indemnify any person who is or was a director or officer of us, or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against the expenses, liabilities or other matters referred to in or covered by Section 145 of the DGCL. Our bylaws provide that we will indemnify any person who was or is a party or threatened to be made a party to any proceeding by reason of the fact that such person is or was a director or officer of us or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise to the fullest extent permitted by the DGCL.

In addition, we have entered into indemnification agreements with each of our directors and with certain of our executive officers. Pursuant to the indemnification agreements, we have agreed to indemnify and hold harmless these directors and officers to the fullest extent permitted by the DGCL. The agreements generally cover expenses that a director or officer incurs or amounts that a director or officer becomes obligated to pay because of any proceeding to which he or she is made or threatened to be made a party or participant by reason of his or her service as a current or former director, officer, employee or agent of the Company. The agreements also provide for the advancement of expenses to the directors and officers subject to specified conditions. There are certain exceptions to our obligation to indemnify the directors and officers, including any intentional malfeasance or act where the director or officer did not in good faith believe he or she was acting in our best

interests, with respect to "short-swing" profit claims under Section 16(b) of the 1934 Act and, with certain exceptions, with respect to proceedings that he or she initiates.

Section 145 of the DGCL also empowers a corporation to purchase insurance for its officers and directors for such liabilities. We maintain liability insurance for our officers and directors.

Choice of Forum

Our bylaws require that the Court of Chancery of the State of Delaware (or, in the event that the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any current or former director, officer, employee or stockholder to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the DGCL or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, our certificate of incorporation or our bylaws (as either may be amended from time to time); (4) any action to interpret, apply, enforce or determine the validity of the certificate of incorporation or our bylaws (as either may be amended from time to time); or (5) any action asserting a claim against us governed by the internal affairs doctrine. This provision would not apply to claims brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Our bylaws provide further that the federal district courts of the United States will be the exclusive forum for the resolution of any complaint asserting a cause of action against us or any director, officer, employee or agent of us arising under the Securities Act. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors or officers.

Debt Securities

The paragraphs below describe the general terms and provisions of the debt securities we may issue. When we offer to sell a particular series of debt securities, we will describe the specific terms of the securities in a supplement to this prospectus, including any additional covenants or changes to existing covenants relating to such series. The prospectus supplement also will indicate whether the general terms and provisions described in this prospectus apply to a particular series of debt securities. You should read the actual indenture if you do not fully understand a term or the way we use it in this prospectus.

If we issue debt securities at a discount from their principal amount, then, for purposes of calculating the aggregate initial offering price of the offered securities issued under this prospectus, we will include only the initial offering price of the debt securities and not the principal amount of the debt securities.

We have summarized below the material provisions of the indenture, or indicated which material provisions will be described in the related prospectus supplement. The prospectus supplement relating to any particular securities offered will describe the specific terms of the securities, which may be in addition to or different from the general terms summarized in this prospectus. We have included the form of the indenture as an exhibit to our registration statement of which this prospectus is a part, and it is incorporated into this prospectus by reference. Because the summary in this prospectus and in any prospectus supplement does not contain all of the information that you may find useful, you should read the documents relating to the securities that are described in this prospectus or in any applicable prospectus supplement. Please read "Where You Can Find More Information" in this prospectus to find out how you can obtain a copy of those documents. References below to an "indenture" are references to the indenture, as supplemented, under which a particular series of debt securities is issued. As used under this caption, the term "debt securities" includes the debt securities being offered by this prospectus and all other debt securities issued by us under the indenture.

General

The indenture:

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

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

- the title of the debt securities and whether they are senior, senior subordinated or subordinated debt securities;
- the aggregate principal amount of the debt securities being offered and any limit on their aggregate principal amount, and, if the series is to be issued at a discount from its face amount, the method of computing the accretion of such discount;
- the price at which the debt securities will be issued, expressed as a percentage of the principal and, if other than the full 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 common stock or preferred stock or the method by which any such portion shall be determined;
- if convertible, the terms on which such debt securities are convertible, including the initial conversion price or rate or the method of calculation, how and when the conversion price or exchange ratio may be adjusted, whether conversion or exchange is mandatory, at the option of the holder or at our option, the conversion or exchange period, and any other provision in relation thereto, and any applicable limitations on the ownership or transferability of common stock or preferred stock received on conversion;
- the date or dates, or the method for determining the date or dates, on which the principal of the debt securities will be payable;
- the fixed or variable interest rate or rates of the debt securities, or the method by which the interest rate or rates is determined;
- the date or dates, or the method for determining the date or dates, from which interest will accrue;
- the dates on which interest will be payable;
- the record dates for interest payment dates, or the method by which we will determine those dates;
- the persons to whom interest will be payable;
- the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;
- Any collateral securing the performance of our obligations under the debt securities;
- the place or places where the principal of, premium, if any, and interest on, the debt securities will be payable;
- where the debt securities may be surrendered for registration of transfer or conversion or exchange;
- where notices or demands to or upon us in respect of the debt securities and the applicable indenture may be served;
- any provisions regarding our right to redeem or purchase debt securities or the right of holders to require us to redeem or purchase debt securities;

- any right or obligation we have to redeem, repay or purchase the debt securities pursuant to any sinking fund or analogous provision;
- the currency or currencies (including any composite currency) in which the debt securities are denominated and payable if other than U.S. dollars, and the currency or currencies (including any composite currency) in which principal, premium, if any, and interest, if any, will be payable, and if such payments may be made in a currency other than that in which the debt securities are denominated, the manner for determining such payments, including the time and manner of determining the exchange rate between the currency in which such securities are denominated and the currency in which such securities or any of them may be paid, and any additions to, modifications of or deletions from the terms of the debt securities to provide for or to facilitate the issuance of debt securities denominated or payable in a currency other than U.S. dollars;
- whether the amount of payments of principal of, premium, if any, or interest on, the debt securities may be determined according to an index, formula or other method and how such amounts will be determined;
- whether the debt securities will be in registered form, bearer form or both, and the terms of these forms;
- whether the debt securities will be issued in whole or in part in the form of a global security and, if applicable, the identity of the depositary for such global security;
- any provision for electronic issuance of the debt securities or issuance of the debt securities in uncertificated form;
- whether and upon what terms the debt securities of such series may be defeased or discharged, if different from the provisions set forth in the indenture for the series to which the supplemental indenture or authorizing resolution relates;
- any provisions granting special rights to holders of securities upon the occurrence of such events as specified in the applicable prospectus supplement;
- any deletions from, modifications of, or additions to our events of default or covenants or other provisions set forth in the indenture for the series to which the supplemental indenture or authorizing resolution relates; and
- any other material terms of the debt securities, which may be different from the terms set forth in this prospectus.

We may issue debt securities at a discount below their principal amount and 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.” The applicable prospectus supplement will describe the U.S. federal income tax consequences and other relevant considerations applicable to original issue discount securities.

Neither the DGCL nor our governing instruments define the term “substantially all” as it relates to the sale of assets. Additionally, Delaware cases interpreting the term “substantially all” rely upon the facts and circumstances of each particular case. Consequently, to determine whether a sale of “substantially all” of our assets has occurred, a holder of debt securities must review the financial and other information that we have disclosed to the public.

The applicable prospectus supplement will also describe any material covenants to which a series of debt securities will be subject and the applicability of those covenants to any of our subsidiaries to be restricted thereby, which are referred to herein as “restricted subsidiaries.” The applicable prospectus supplement will also describe provisions for restricted subsidiaries to cease to be restricted by those covenants.

Events of Default

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:

- our failure to pay interest on any debt security of such series when the same becomes due and payable and the continuance of any such failure for a period of 30 days;
- our failure to pay the principal or premium of any debt security of such series when the same becomes due and payable at maturity, upon acceleration, redemption or otherwise;
- our failure or the failure of any restricted subsidiary to comply with any of its agreements or covenants in, or provisions of, the debt securities of such series or the indenture (as they relate thereto) and such failure continues for a period of 60 days after our receipt of notice of the default from the trustee or from the holders of at least 25 percent in aggregate principal amount of the then outstanding debt securities of that series (except in the case of a default with respect to the provisions of the indenture regarding the consolidation, merger, sale, lease, conveyance or other disposition of all or substantially all of the assets of us (or any other provision specified in the applicable supplemental indenture or authorizing resolution), which will constitute an event of default with notice but without passage of time); or
- certain events of bankruptcy, insolvency or reorganization occur with respect to Gyre or any restricted subsidiary of Gyre that is a significant subsidiary (as defined in the indenture).

If an event of default occurs and is continuing with respect to debt securities of any series outstanding, then the trustee or the holders of 25% or more in principal amount of the outstanding debt securities of that series will have the right to declare the principal amount of all the debt securities of that series to be due and payable immediately. However, the holders of at least a majority in principal amount of outstanding debt securities of such series may rescind and annul such declaration and its consequences, except an acceleration due to nonpayment of principal or interest on such series, if the rescission would not conflict with any judgment or decree and if all existing events of default with respect to such series have been cured or waived.

The indenture also provides that the holders of at least a majority in principal amount of the outstanding debt securities of any series, by notice to the trustee, may, on behalf of all holders, waive any existing default and its consequences with respect to such series of debt securities, other than any event of default in payment of principal or interest.

The indenture will require the trustee to give notice to the holders of debt securities within 90 days after the trustee obtains knowledge of a default that has occurred and is continuing. However, the trustee may withhold notice to the holders of any series of debt securities of any default, except a default in payment of principal or interest, if any, with respect to such series of debt securities, if the trustee considers it in the interest of the holders of such series of debt securities to do so.

The holders of a majority of the outstanding principal amount of the debt securities of any series will have the right to direct the time, method and place of conducting any proceedings for any remedy available to the trustee with respect to such series, subject to limitations specified in the indenture.

Amendment, Supplement and Waiver

Without notice to or the consent of any holder, we and the trustee may amend or supplement the indenture or the debt securities of a series:

- to cure any ambiguity, omission, defect or inconsistency;
- to comply with the provisions of the indenture regarding the consolidation, merger, sale, lease, conveyance or other disposition of all or substantially all of our assets;
- to provide that specific provisions of the indenture shall not apply to a series of debt securities not previously issued or to make a change to specific provisions of the indenture that only applies to any series of debt securities not previously issued or to additional debt securities of a series not previously issued;
- to create a series and establish its terms;

- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to release a guarantor in respect of any series which, in accordance with the terms of the indenture applicable to such series, ceases to be liable in respect of its guarantee;
- to add a guarantor subsidiary in respect of any series of debt securities;
- to secure any series of debt securities;
- to add to the covenants of Gyre for the benefit of the holders or surrender any right or power conferred upon Gyre;
- to appoint a successor trustee with respect to the securities;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act;
- to make any change that does not adversely affect the rights of holders; or
- to conform the provisions of the indenture to the final offering document in respect of any series of debt securities.

The indenture will provide that we and the trustee may amend or supplement any provision of the debt securities of a series or of the indenture relating to such series with the written consent of the holders of at least a majority in principal amount of the outstanding debt securities of such series. However, without the consent of each holder of a debt security the terms of which are directly amended, supplemented or waived, an amendment, supplement or waiver may not:

- reduce the amount of debt securities of such series whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest, including defaulted interest;
- reduce the principal of or extend the fixed maturity of any debt security or alter the provisions with respect to redemptions or mandatory offers to repurchase debt securities of a series in a manner adverse to holders;
- make any change that adversely affects any right of a holder to convert or exchange any debt security into or for shares of our common stock or other securities, cash or other property in accordance with the terms of such security;
- modify the ranking or priority of the debt securities of the relevant series;
- release any guarantor of any series from any of its obligations under its guarantee or the indenture otherwise than in accordance with the terms of the indenture;
- make any change to any provision of the indenture relating to the waiver of existing defaults, the rights of holders to receive payment of principal and interest on the debt securities, or to the provisions regarding amending or supplementing the indenture or the debt securities of a particular series with the written consent of the holders of such series, except to increase the percentage required for modification or waiver or to provide for consent of each affected holder of debt securities of such series;
- waive a continuing default or event of default in the payment of principal of or interest on the debt securities; or
- make any debt security payable at a place or in money other than that stated in the debt security, or impair the right of any holder of a debt security to bring suit as permitted by the indenture.

The holders of a majority in aggregate principal amount of the outstanding debt securities of such series may, on behalf of all holders of debt securities of that series, waive any existing default under, or compliance with, any provision of the debt securities of a particular series or of the indenture relating to a particular series of debt securities, other than any event of default in payment of interest or principal.

Defeasance

The indenture will permit us to terminate all our respective obligations under the indenture as they relate to any particular series of debt securities, other than the obligation to pay interest, if any, on and the principal of the debt securities of such series and certain other obligations, at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money or government obligations in an amount sufficient to pay principal of and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right and will be subject to federal income tax on the same amount and in the same manner and at the same times as would have been the case otherwise.

The indenture will also permit us to terminate all of our respective obligations under the indenture as they relate to any particular series of debt securities, including the obligations to pay interest, if any, on and the principal of the debt securities of such series and certain other obligations, at any time by:

- depositing in trust with the trustee, under an irrevocable trust agreement, money or government obligations in an amount sufficient to pay principal and interest, if any, on the debt securities of such series to their maturity or redemption; and
- complying with other conditions, including delivery to the trustee of an opinion of counsel to the effect that (A) we have received from, or there has been published by, the Internal Revenue Service a ruling, or (B) since the date such series of debt securities were originally issued, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such opinion of counsel shall state that, holders will not recognize income, gain or loss for federal income tax purposes as a result of our exercise of such right and will be subject to federal income tax on the same amount and in the same manner and at the same times as would have been the case otherwise.

In addition, the indenture will permit us to terminate substantially all our respective obligations under the indenture as they relate to a particular series of debt securities by depositing with the trustee money or government obligations sufficient to pay all principal and interest on such series at its maturity or redemption date if the debt securities of such series will become due and payable at maturity within one year or are to be called for redemption within one year of the deposit.

Transfer and Exchange

A holder will be able to transfer or exchange debt securities only in accordance with the indenture. The registrar may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and to pay any taxes and fees required by law or permitted by the indenture.

Concerning the Trustee

The indenture will contain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in specified cases or to realize on property received in respect of any such claim as security or otherwise. The indenture will permit the trustee to engage in other transactions; however, if it acquires any conflicting interest, it must eliminate such conflict or resign.

The indenture will provide that in case an event of default occurs and is not cured, the trustee will be required, in the exercise of its power, to use the degree of care of a prudent person in similar circumstances in the conduct of such person's own affairs. The trustee shall be under no obligation to exercise any of the rights or powers vested in it by the indenture at the request or direction of any of the holders pursuant to the indenture, unless such holders shall have offered to the trustee security or indemnity satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

No Recourse Against Others

The indenture will provide that there is no recourse under any obligation, covenant or agreement in the applicable indenture or with respect to any debt security against any of our or our successor's past, present or future stockholders, employees, officers or directors.

Governing Law

The laws of the State of New York will govern the indenture and the debt securities.

Warrants

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series, from time to time. 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 those securities.

If we issue warrants, they will be evidenced by warrant agreements or warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. We urge you to read the prospectus supplement related to any series of warrants we may offer, as well as the complete warrant agreement and warrant certificate that contain the terms of the warrants. If we issue warrants, forms of warrant agreements and warrant certificates relating to warrants for the purchase of common stock, preferred stock and debt securities will be incorporated by reference into the registration statement of which this prospectus is a part from reports we would subsequently file with the SEC.

Units

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

The following description, together with the additional information included in any applicable prospectus supplement, summarizes the general features of the units that we may offer under this prospectus. You should read any prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreements that contain the terms of the units. Specific unit agreements will contain additional important terms and provisions and we will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from another report that we file with the SEC, the form of each unit agreement relating to units offered under this prospectus.

If we offer any units, certain terms of that series of units will be described in the applicable prospectus supplement, including, without limitation, the following, as applicable:

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain U.S. federal income tax considerations applicable to the units; and
- any other terms of the units and their constituent securities.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq 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 Nasdaq or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to offerings pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than our shares of common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Certain legal matters, including the legality of the securities offered, will be passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The audited consolidated financial statements of Gyre Therapeutics, Inc. for the years ended December 31, 2023 and December 31, 2022 incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton Zhitong Certified Public Accountants LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The consolidated balance sheets of Catalyst Biosciences, Inc. as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC, and we have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information included in the registration statement, including its exhibits and schedules. For further information about us and the securities described in this prospectus, you should refer to the registration statement, its exhibits and schedules and our reports, proxies, information statements and other information filed with the SEC.

Our filings are available to the public on the Internet, through a database maintained by the SEC at *www.sec.gov*. We also maintain a website at *www.gyretx.com*. We have included our website address for the information of prospective investors and do not intend it to be an active link to our website. Information contained on our website does not constitute a part of this prospectus or any applicable prospectus supplement (or any document incorporated by reference herein or therein).

INCORPORATION OF CERTAIN INFORMATION 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 Securities Exchange Act of 1934, as amended (the "Exchange Act") (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed, except that we are not incorporating by reference any information furnished (and not filed) with the SEC, including any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K:

- our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 27, 2024 (including the portions of our Definitive Proxy Statement on Schedule 14A filed on April 29, 2024 incorporated by reference therein) and our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 30, 2023;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023, September 30, 2023, March 31, 2024, June 30, 2024 and September 30, 2024, filed with the SEC on May 15, 2023, August 14, 2023, October 26, 2023, May 13, 2024, August 13, 2024 and November 13, 2024, respectively;
- our Current Reports on Form 8-K and Form 8-K/A, as applicable, filed with the SEC on January 12, 2024, January 19, 2024, March 21, 2024 (excluding Items 7.01 and 9.01), March 26, 2024, May 8, 2024 (excluding Items 7.01 and 9.01), May 30, 2024 (excluding Items 7.01 and 9.01), June 17, 2024, July 5, 2024, and August 8, 2024 (excluding Items 7.01 and 9.01); and
- the description of our common stock attached as Exhibit 4.1 to our Annual Report on Form 10-K, for the year ended December 31, 2023, filed with the SEC on March 27, 2024, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02, Item 7.01 or Item 9.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, and (ii) after the date of this prospectus but prior to the termination of the offering. These documents include, without limitation, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, as well as proxy statements.

You may request a copy of these filings, at no cost, by contacting us, either orally or in writing, at the following:

Gyre Therapeutics, Inc.
12770 High Bluff Drive
Suite 150
San Diego, California 92130
(858) 567-7770

We maintain a website at *www.gyretx.com*. Information about us, including our reports filed with the SEC, is available through that site. Such reports are accessible at no charge through our website and are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC. Our website and the information contained on that website, or connected to that website, are not incorporated by reference in this prospectus.

You may read and copy any materials we file with the SEC at the SEC's website mentioned under the heading "Where You Can Find More Information." The information on the SEC's website is not incorporated by reference in this prospectus.

Up to $50,000,000

Common Stock

PROSPECTUS SUPPLEMENT

Jefferies

November 27, 2024