

PROSPECTUS SUPPLEMENT
(to Prospectus dated January 3, 2022)



Up to \$2,054,024
Common Stock

We have entered into an At The Market Offering Agreement, or the sales agreement, with Ladenburg Thalmann & Co. Inc., or Ladenburg, relating to shares of our common stock offered by this prospectus supplement. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock, \$0.001 par value per share, or common stock, having an aggregate offering price of up to \$2,054,024 from time to time through Ladenburg, acting as sales agent.

Our common stock is listed on the Nasdaq Capital Market under the trading symbol “WINT.” On November 7, 2023 the last reported sale price of our common stock on the Nasdaq Capital Market was \$1.05 per share.

Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be “at-the-market” equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, or in privately negotiated transactions. Ladenburg is not required to sell any specific number or dollar amounts of securities, but will act as sales agent and use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Ladenburg and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Ladenburg will be entitled to compensation at a commission rate of 3% of the aggregate gross sales price per share sold of our common stock. See “Plan of Distribution” beginning on page S-20 for additional information regarding Ladenburg’s compensation. In connection with the sale of our common stock on our behalf, Ladenburg may be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of Ladenburg may be deemed to be underwriting commissions or discounts.

The aggregate market value of our outstanding common stock held by non-affiliates as of November 7, 2023 was approximately \$7.1 million based on 5,148,219 shares of common stock outstanding on such date, of which 5,136,957 were held by non-affiliates, and a closing price of \$1.38 (the closing price on October 16, 2023). Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of the aggregate market value of our voting and non-voting common equity held by non-affiliates in any 12-month period so long our public float remains below \$75 million. During the 12 calendar months prior to and including the date hereof, we have sold securities pursuant to General Instruction I.B.6 of Form S-3 resulting in \$308,976 in aggregate gross proceeds. As a result and as of the date hereof, we are eligible to offer and sell up to an aggregate of approximately \$2,054,024 of our securities pursuant to General Instruction I.B.6 of Form S-3.

Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under the heading “Risk Factors” beginning on page S-9 of this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Ladenburg Thalmann

The date of this prospectus supplement is November 9, 2023.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus is part of a registration statement on Form S-3 that we have filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. This document consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering. The second part is the accompanying prospectus, which describes more general information, some of which may not apply to this offering. You should read both this prospectus supplement and the accompanying prospectus, together with the documents incorporated by reference and the additional information described in the accompanying prospectus under the heading “Where You Can Find More Information, Incorporation by Reference.”

We provide information to you about this offering of shares of our common stock in this prospectus supplement, which describes the specific details regarding this offering. If the description of the offering varies between this prospectus supplement and the accompanying prospectus or the documents incorporated by reference prior to the date of this prospectus supplement, you should rely on the information in 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.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Ladenburg has not, authorized anyone to provide you with any information other than that 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 Ladenburg take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and Ladenburg is 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, the accompanying prospectus, 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 herein and therein, 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 entitled “Where You Can Find More Information” and “Incorporation by Reference.”

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

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, 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 must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement, together with the accompanying prospectus, does 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 by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context otherwise requires, references in this prospectus supplement to “Windtree,” “Windtree Therapeutics,” “the Company,” “we,” “our,” and “us” refer to Windtree Therapeutics, Inc., a Delaware corporation, and our consolidated subsidiaries.

We use “Windtree Therapeutics,” as our trademark, and we have been granted a trademark or have a trademark application on file with the United States Patent and Trademark Office. All trademarks or trade names referred to in this prospectus supplement and the accompanying prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus supplement and the accompanying prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us, by any other companies.

MARKET AND INDUSTRY DATA

This prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein, contains estimates, projections and other information concerning our industry, our business, and the markets for certain drugs, including data regarding the estimated size of those markets, their projected growth rates and the incidence of certain medical conditions. Unless otherwise expressly stated, we obtained the industry, market and competitive position data from our own internal estimates and research, as well as from independent market research, industry, medical and general publications and surveys, governmental agencies and publicly available information in addition to research, surveys and studies conducted by third parties. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires. All market and industry data used involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

In addition, while we believe the industry, market and competitive position data included in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein is reliable and based on reasonable assumptions, such data involve risks and uncertainties and are subject to change based on various factors, including those described in the section titled “Risk Factors,” beginning on page S-9 and the “Risk Factors” section included in our Annual Report on Form 10-K for the year ended December 31, 2022 and our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023, June 30, 2023 and September 30, 2023, as well as in our subsequent Quarterly Reports on Form 10-Q and our Annual Reports on Form 10-K filed with the SEC. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights information contained or incorporated by reference elsewhere in this prospectus supplement and the accompanying prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus supplement, the accompanying prospectus and any related free writing prospectus, as well as the information under the caption “Risk Factors” beginning on page S-9 of this prospectus supplement, and on page 6 of the accompanying prospectus, and the “Risk Factors” section included in our Annual Report on Form 10-K for the year ended December 31, 2022 and our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023, June 30, 2023 and September 30, 2023, as well as our financial statements and the related notes thereto in our Annual Report on Form 10-K for the year ended December 31, 2022 and our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023, June 30, 2023 and September 30, 2023, and any subsequent Quarterly Report on Form 10-Q incorporated by reference herein.

Company Overview

We are a clinical-stage biopharmaceutical company focused on the development of novel therapeutics intended to address significant unmet medical needs in important cardiovascular care markets. Our development programs are primarily focused on the treatment of cardiovascular diseases. Our lead product candidate, istaroxime, is a first-in-class, dual-acting agent being developed to increase blood pressure and improve cardiac function in patients with cardiogenic shock and to improve cardiac function in patients with acute heart failure, or AHF, and reverse the hypotension and hypoperfusion associated with heart failure that deteriorates to cardiogenic shock. We also plan to demonstrate that istaroxime can produce a therapeutic benefit in these settings with a differentiated safety profile compared to drugs currently used in these patients. Istaroxime demonstrated significant improvement in both systolic and diastolic aspects of cardiac function and was generally well tolerated in three Phase 2 clinical trials. Istaroxime has been granted Fast Track designation for the treatment of AHF by the U.S. Food and Drug Administration, or FDA. Based on the profile observed in our Phase 2 clinical studies in AHF, where istaroxime significantly improved cardiac function and systolic blood pressure, or SBP, in acute decompensated heart failure patients, we initiated a Phase 2 global clinical study, or the SEISMic Study, to evaluate istaroxime for the treatment of early cardiogenic shock (Society for Cardiovascular Angiography and Interventions, or SCAI, Stage B shock), a severe form of AHF characterized by very low blood pressure and risk for hypoperfusion to critical organs and mortality. We completed the SEISMic Study and, in April 2022, announced positive topline results. Istaroxime rapidly and significantly increased SBP while also improving cardiac function and preserving renal function. In May 2022, we presented the SEISMic Study results at the European Society of Cardiology Heart Failure Meeting in Madrid, Spain and, in September 2022, the results were published in the European Journal of Heart Failure. A second manuscript comparing the two doses used in the trial was published in the Journal of Cardiac Failure in April 2023. We believe that istaroxime has the potential to fulfill an unmet need in early and potentially more severe cardiogenic shock. We further believe that the data from the SEISMic Study supports continued development in both cardiogenic shock and AHF. We are currently initiating an extension to the SEISMic Study, or the SEISMic Extension, to evaluate a longer dosing period and to continue to characterize the effects of istaroxime, including activation of sarco endoplasmic reticulum Ca²⁺ -ATPase 2a, or SERCA2a. The SEISMic Extension trial is expected to enroll up to 30 subjects with SCAI Stage B cardiogenic shock with data anticipated in mid-2024. Additionally, we are engaged in start-up procedures and exploring the possibility of commencing a small study in more severe SCAI Stage C cardiogenic shock.

Our heart failure cardiovascular portfolio also includes SERCA2a activators. This research program is evaluating these preclinical product candidates, including oral and intravenous SERCA2a activator heart failure compounds. These candidates would potentially be developed for both acute decompensated and chronic out-patient heart failure. In addition, our cardiovascular drug product candidates include rostafuroxin, a novel product candidate for the treatment of hypertension in patients with a specific genetic profile. We are pursuing potential licensing arrangements and/or other strategic partnerships and do not intend to advance rostafuroxin without securing such an arrangement or partnership.

Corporate Information

We were incorporated in Delaware on November 6, 1992. Our principal executive offices are located at 2600 Kelly Road, Suite 100, Warrington, Pennsylvania 18976, and our telephone number is (215) 488-9300. Our website address is www.windtreetworks.com. The information on, or that can be accessed through, our website is not part of this prospectus supplement, or the accompanying prospectus and is not incorporated by reference herein and you should not consider it part of this prospectus supplement or the accompanying prospectus. We have included our website address as an inactive textual reference only.

THE OFFERING

Common stock offered by us	Shares of our common stock having an aggregate offering price of up to \$2,054,024.
Common stock to be outstanding after this offering	Up to 7,104,432 shares of common stock (as more fully described in the notes following this table), assuming sales of 1,956,213 shares of our common stock in this offering at an offering price of \$1.05 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on November 7, 2023. The actual number of shares issued will vary depending on the price at which shares may be sold from time to time.
Manner of offering	“At the market offering” as defined in Rule 415(a)(4) under the Securities Act, that may be made from time to time through the sales agent, Ladenburg. See “Plan of Distribution” on page S-20 of this prospectus supplement.
Use of proceeds	We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes, which may include capital expenditures, research and development, general and administrative expenses and repayment of indebtedness. See “Use of Proceeds” on page S-13.
Risk factors	An investment in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-9 of this prospectus supplement, the accompanying prospectus and the other information incorporated by reference herein and therein for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Nasdaq Capital Market symbol	“WINT.”

The number of shares of our common stock that will be outstanding after this offering is based on 5,148,219 shares of common stock outstanding as of September 30, 2023, and excludes:

- 278,853 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2023, at a weighted-average exercise price of \$93.29 per share;
- 4,688,251 shares of our common stock issuable upon the exercise of the warrants outstanding as of September 30, 2023, at a weighted-average exercise price of \$19.90 per share;
- 147,299 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding as of September 30, 2023; and
- 338,352 shares of common stock available for future grant as of September 30, 2023 under our Amended and Restated 2020 Equity Incentive Plan (the “2020 Equity Plan”).

Unless otherwise stated, all information contained in this prospectus supplement reflects an assumed public offering price of \$1.05 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on November 7, 2023.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the following risks and uncertainties as well as the risks and uncertainties described in the sections entitled “Risk Factors” contained in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 31, 2023, our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023, as filed with the SEC on May 15, 2023, our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2023, as filed with the SEC on August 7, 2023, and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2023, as filed with the SEC on November 9, 2023, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, each of which is incorporated in this prospectus supplement by reference in their entirety, together with other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering before you make a decision to invest in our common stock. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business, operating results, prospects or financial condition. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to this Offering

Our management team may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a significant return.

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds, if any, from this offering for working capital and general corporate purposes, which may include capital expenditures, research and development, general and administrative expenses and repayment of indebtedness. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock.

You may experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

The price per share of our common stock being offered may be higher than the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 1,956,213 shares are sold at an assumed offering price of \$1.05 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on November 7, 2023, for aggregate gross proceeds of \$2,054,024 in this offering, and after deducting commissions and estimated aggregate offering expenses payable by us, you will suffer immediate and substantial dilution of \$3.30 per share, representing the difference between the as adjusted net tangible book value per share of our common stock as of September 30, 2023 after giving effect to this offering and the assumed offering price. To the extent that any options or warrants are exercised, any restricted stock units vest and are settled, any new equity awards are issued under our equity incentive plans, or we otherwise issue additional shares of common stock in the future (including shares issued in connection with strategic and other transactions), you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders. See the section entitled “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

Sales of our common stock in this offering, or the perception that such sales may occur, could cause the market price of our common stock to fall.

We may issue and sell shares of our common stock for aggregate gross proceeds of up to \$2,054,024 from time to time in connection with this offering. The actual number of shares of common stock that may be issued and sold in this offering, as well as the timing of any such sales, will depend on a number of factors, including, among others, the prices at which any shares are actually sold in this offering (which may be influenced by market conditions, the trading price of our common stock and other factors) and our determinations as to the appropriate timing, sources and amounts of funding we need. The issuance and sale from time to time of these new shares of common stock, or the mere fact that we are able to issue and sell these shares in this offering, could cause the market price of our common stock to decline.

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

In order 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. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater 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 other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. As of September 30, 2023, 764,504 shares of common stock were either subject to outstanding options or restricted stock unit awards, or reserved for future issuance under our equity incentive plans and are eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules and 4,688,251 shares are reserved for the exercise of warrants outstanding with a weighted average exercise price of \$19.90.

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 a placement notice to the sales agent, Ladenburg, at any time throughout the term of the sales agreement. The number of shares that are sold through Ladenburg 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 Ladenburg 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 “at-the-market offerings,” 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 the Board, or any restrictions we may place in any applicable placement notice delivered to Ladenburg, 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents that we incorporate by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering, contains forward-looking statements within the meaning of Section 27A of the Securities Act, Section 21E of the Exchange Act and the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in this prospectus supplement and the accompanying prospectus are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. These forward-looking statements include, but are not limited to, statements about:

- our estimates regarding future results of operations, financial position, research and development costs, capital requirements and our needs for additional financing;
- how long we can continue to fund our operations with our existing cash and cash equivalents;
- changes in market conditions, general economic conditions, and the banking sector, and potential constraints in accessing capital or credit if and when needed with favorable terms, if at all;
- the potential impairment of our intangible assets on our condensed consolidated balance sheet, which could lead to material impairment charges in the future;
- potential delays and uncertainties in our anticipated timelines and milestones and additional costs associated with the impact of the residual effects of the coronavirus pandemic and the evolving events in Israel and Gaza on our clinical trial operations;
- the costs, timing, and results, of our preclinical studies and clinical trials, as well as the number of required trials for regulatory approval and the criteria for success in such trials;
- legal and regulatory developments in the United States, or U.S., and foreign countries, including any actions or advice that may affect the design, initiation, timing, continuation, progress or outcome of clinical trials or result in the need for additional clinical trials;
- the difficulties and expenses associated with obtaining and maintaining regulatory approval of our product candidates, and the indication and labeling under any such approval;
- risks related to manufacturing active pharmaceutical ingredients, drug product, and other materials we need;
- delays, interruptions or failures in the manufacture and supply of our product candidates;
- the plans of our AEROSURF and KL4 licensee, Lee’s Pharmaceutical (HK) Ltd., and its affiliate, Zhaoke Pharmaceutical (Hefei) Co. Ltd., and their ability to successfully source materials, execute necessary clinical and business development activities in a timely manner, if at all, to support development and commercialization of the licensed product candidates;
- the performance of third parties, both foreign and domestic, upon which we depend, including contract research organizations, contract manufacturing organizations, contract laboratories, and independent contractors;
- the size and growth of the potential markets for our product candidates, the regulatory requirements in such markets, the rate and degree of market acceptance of our product candidates, and our ability to serve those markets;
- the success of competing therapies and products that are or may become available;
- our ability to limit our exposure under product liability lawsuits;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- recently enacted and future legislation, including but not limited to, the Inflation Reduction Act of 2022, regarding the healthcare system in the U.S. or the healthcare systems in foreign jurisdictions;
- our ability to recruit or retain key scientific, commercial or management personnel or to retain our executive officers;
- our ability to secure electronically stored work product, including clinical data, analyses, research, communications, and other materials necessary to gain regulatory approval of our product candidates, including those acquired from third parties, and assure the integrity, proper functionality, and security of our internal computer and information systems and prevent or avoid cyber-attacks, malicious intrusion, breakdown, destruction, security incidents, data privacy violations, or other significant disruption;

- economic uncertainty resulting from inflation and the rapid increase in interest rates, including concerns involving liquidity, defaults or other non-performance by financial institutions;
- our anticipated use of proceeds from this offering; and
- economic uncertainty resulting from geopolitical instability, including the ongoing military conflict between Russia and Ukraine, the People’s Republic of China and the Republic of China (Taiwan), and the conflict in Gaza and Israel.

These forward-looking statements are based on management’s current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management’s beliefs and assumptions and are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in, or incorporated by reference in, this prospectus supplement and the accompanying prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those factors discussed under “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” or otherwise discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023, June 30, 2023 and September 30, 2023, and in our other filings made from time to time with the SEC after the date of this prospectus supplement. Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus supplement and the documents incorporated by reference herein, and any free writing prospectus, as applicable. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus supplement. See “Where You Can Find More Information.”

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$2,054,024 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 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 working capital and general corporate purposes, which may include capital expenditures, research and development, general and administrative expenses and repayment of indebtedness. As of the date of this prospectus supplement, we cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds from this offering in short-term, interest-bearing obligations, investment-grade instruments or other securities.

DILUTION

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

Net tangible book value per share represents our total tangible assets, less total liabilities, divided by the number of shares of our common stock outstanding. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

As of September 30, 2023, our historical net tangible book value was \$(17.8) million, or \$(3.45) per share, based on 5,148,219 shares of common stock outstanding as of September 30, 2023.

After giving effect to the sale of our common stock in the aggregate amount of \$2,054,024 in this offering at an assumed offering price of \$1.05, the last reported sale price of our common stock on the Nasdaq Capital Market on November 7, 2023, and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2023 would have been approximately \$(16.0) million, or \$(2.25) per share. This represents an immediate increase in net tangible book value of \$1.20 per share to existing stockholders and immediate dilution in net tangible book value of \$3.30 per share to investors purchasing our common stock in this offering. The below information is illustrative only and will adjust based on the actual offering price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our common stock are sold pursuant to this prospectus supplement. The shares sold in this offering, if any, will be sold from time to time at various prices.

The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		\$	1.05
Net tangible book value per share as of September 30, 2023		\$	(3.45)
Increase per share attributable to new investors		\$	1.20
As adjusted net tangible book value per share after this offering		\$	(2.25)
Dilution per share to new investors		\$	3.30

The shares sold in this offering, if any, will be sold from time to time at various prices. An increase or decrease of \$0.20 per share in the price at which the shares are sold from the assumed offering price of \$1.05 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$2,054,024 is sold at that price, would cause our as adjusted net tangible book value per share after the offering to be \$(2.35) per share and \$(2.11) per share, respectively, and would increase or decrease the dilution in net tangible book value per share to new investors by \$0.30 per share and \$0.34 per share, respectively, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

To the extent that outstanding options or warrants are exercised, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The above discussion and table are based on 5,148,219 shares of common stock outstanding as of September 30, 2023, and excludes:

- 278,853 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2023, at a weighted-average exercise price of \$93.29 per share;
- 4,688,251 shares of our common stock issuable upon the exercise of the warrants outstanding as of September 30, 2023, at a weighted-average exercise price of \$19.90 per share;
- 147,299 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding as of September 30, 2023; and
- 338,352 shares of common stock available for future grant as of September 30, 2023 under our 2020 Equity Incentive Plan.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, reference to our Amended and Restated Certificate of Incorporation, as amended, or the Certificate of Incorporation, and Amended and Restated By-Laws, or the By-Laws, which have been publicly filed with the SEC. See “Where You Can Find More Information” and “Information Incorporated by Reference.” For a complete description, you should refer to our Certificate of Incorporation and By-Laws, copies of which are incorporated by reference as exhibits to the registration statement of which this prospectus supplement is a part. The terms of our capital stock may also be affected by Delaware law.

Capital Stock

Our Certificate of Incorporation authorizes 120,000,000 shares of common stock, par value \$0.001 per share and 5,000,000 shares of preferred stock, par value \$0.001 per share.

Common Stock

As of September 30, 2023, there were 5,148,219 shares of our common stock issued and outstanding.

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. The affirmative vote of the voting power of the outstanding shares of capital stock entitled to vote, voting as a single class, will be required to amend certain provisions of our Amended and Restated Certificate of Incorporation, including the provisions relating to amending our By-Laws, procedures for our stockholder meetings, director liability, and exclusive forum for proceedings.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our Board out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. In the event of a liquidation, dissolution or winding up of us, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock.

Number of Holders

There are approximately 36 holders of our common stock as of September 30, 2023.

Preferred Stock

Our Board currently has the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock by us could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon a liquidation of us. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of us or other corporate action.

Anti-takeover provisions

Amended and Restated Certificate of Incorporation and By-Laws

Among other things, our Amended and Restated Certificate of Incorporation and By-Laws:

- permit our Board to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of our Board;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may be removed for cause or without cause, which removal may be effected, by the affirmative vote of a majority of the votes of the issued and outstanding shares of stock entitled to vote for the election of the stockholders called and held for that purpose, or by a majority vote of the Board at a meeting called for such purpose, and the vacancy in the Board caused by any such removal may be filled by such stockholders or directors, as the case may be, at such meeting, and if the stockholders shall fail to fill such vacancy, such vacancy shall be filled in the manner as provided by the By-Laws;
- provide that all vacancies, including newly created directorships, may be filled by the decision of majority of the directors then in office, including those who have so resigned, and shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this Section for the filling of other vacancies;
- provides that stockholders may act via a consent of stockholders in lieu of a meeting without prior notice and without a vote, if a consent or consents in writing, set forth the action so taken, and is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the Company by delivery to its registered office in this State, its principal place of business, or an officer or agent of the Company having custody of the book in which proceedings of meetings of stockholders are recorded;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called only by the Board, the Chairman of the Board, or the Chief Executive Officer; and
- do not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions would require the affirmative vote of the majority of voting power of the outstanding shares of capital stock entitled to vote.

The combination of these provisions makes it more difficult for our stockholders to replace our Board as well as for another party to obtain control of us by replacing our Board. Because our Board has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our Board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our Board and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our Company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, or DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the Board of the corporation 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 began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) 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
- on or after such date, the business combination is approved by the Board and authorized at an annual or special meeting of the stockholders, 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.

In general, Section 203 defines a “business combination” to include the following:

- 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;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

A Delaware corporation may “opt out” of these provisions with an express provision in its certificate of incorporation. We have not opted out of these provisions, which may as a result, discourage or prevent mergers or other takeover or change of control attempts of us.

Choice of Forum

Our Amended and Restated Certificate of Incorporation provides that the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for the following claims or causes of action brought under Delaware statutory or common law: (1) any derivative claim or action brought on our behalf; (2) any claim or cause of action asserting a breach of fiduciary duty by any of our directors or officers; (3) any claim or cause of action asserting a claim against us arising out of, or pursuant to, the DGCL, our Amended and Restated Certificate of Incorporation or our By-Laws; or (4) any action asserting a claim against the Company governed by the internal affairs doctrine.

Limitations of Liability and Indemnification

Our Amended and Restated Certificate of Incorporation and our By-Laws limit our directors' liability and may indemnify our directors and officers to the fullest extent permitted under the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payment of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL; or
- any transaction from which the director derived an improper benefit.

The DGCL and our By-Laws provide that we will, in certain situations, indemnify our directors and officers, to the fullest extent permitted by law.

We have entered into indemnification agreements with our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, penalties, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request. Subject to certain limitations, our indemnification agreements also require us to advance expenses incurred by our directors and officers for the defense of any action for which indemnification is required or permitted.

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these provisions in our Amended and Restated Certificate of Incorporation, our By-Laws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our Amended and Restated Certificate of Incorporation and By-Laws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

At present, there is no material pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought and we are not aware of any threatened material litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy, as expressed in the Securities Act, and is therefore unenforceable.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "WINT".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. The transfer agent and registrar's address is 1 State Street, 30th Floor, New York, New York 10004.

PLAN OF DISTRIBUTION

We have entered into the sales agreement with Ladenburg, under which we may offer and sell up to \$2,054,024 of shares of our common stock from time to time through Ladenburg acting as agent and/or principal. Sales of shares of our common stock, if any, under this prospectus supplement 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 or in privately negotiated transactions.

Each time we wish to issue and sell shares of common stock under the sales agreement, we will notify Ladenburg of the number of shares to be issued, the dates on which such sales may 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 Ladenburg, unless Ladenburg declines to accept the terms of such notice, Ladenburg has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Ladenburg under the sales agreement to sell shares of our common stock are subject to a number of conditions that we must meet.

Under the terms of the sales agreement, we may also sell shares of our common stock to the agent as principal for its own account at prices agreed upon at the time of sale. If we sell shares of our common stock to the agent as principal, we will enter into a separate terms agreement with the agent.

The settlement of sales of shares between us and Ladenburg 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 and between us and Ladenburg in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of shares of our 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 Ladenburg may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Ladenburg a commission in cash of 3.0% of the aggregate gross proceeds we receive from each sale of shares of our common stock through Ladenburg as our agent. 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 Ladenburg for the fees and disbursements of its counsel, payable upon execution of the sales agreement, in an amount not to exceed \$60,000, in addition to certain ongoing disbursements of its legal counsel up to \$3,500 per calendar quarter in connection with quarterly diligence bring downs. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Ladenburg under the terms of the sales agreement, will be approximately \$245,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Ladenburg will provide written confirmation to us following the close of trading on the Nasdaq Capital Market on each day on which 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 the shares of common stock on our behalf, Ladenburg will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Ladenburg will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Ladenburg against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Ladenburg may be required to make in respect of such liabilities.

The offering of shares of our of common stock pursuant to the sales agreement will terminate as permitted therein. We and Ladenburg may each terminate the sales agreement at any time upon five (5) business 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 the registration statement of which this prospectus supplement forms a part.

Ladenburg and its affiliates have previously, and 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 have received, and may in the future receive customary fees. In the course of its business, Ladenburg may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Ladenburg 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 Ladenburg, and Ladenburg may distribute this prospectus supplement and the accompanying prospectus electronically.

LEGAL MATTERS

Goodwin Procter LLP will pass upon certain legal matters relating to this offering. Ellenoff Grossman & Schole LLP, New York, New York, has acted as counsel to Ladenburg Thalmann & Co. Inc. in connection with this offering.

EXPERTS

The consolidated balance sheet of Windtree Therapeutics, Inc. and Subsidiaries as of December 31, 2022, and the related consolidated statements of operations, changes in mezzanine equity and stockholders' equity, and cash flows for the year 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 our 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.

The consolidated financial statements of Windtree Therapeutics, Inc. at December 31, 2021, and for the year then ended, appearing in Windtree Therapeutics, Inc.'s 2022 Annual Report (Form 10-K) for the year ended December 31, 2022 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 3 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

We also maintain a website at <https://ir.windtreetx.com/filings/sec-filings>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus supplement or the accompanying prospectus, and the inclusion of our website address in this prospectus supplement and the accompanying prospectus is an inactive textual reference only.

This prospectus supplement and the accompanying prospectus are a part of a registration statement that we filed with the SEC and does not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Statements contained in this prospectus supplement and the accompanying prospectus about other documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters.

INFORMATION INCORPORATED BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement and the accompanying prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus supplement or the accompanying prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement or a subsequently filed document incorporated by reference modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of this prospectus supplement and the termination of the offering of the securities described in this prospectus supplement. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "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.

This prospectus supplement incorporates by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on [March 31, 2023](#), as amended by the Company's Annual Report on Form 10-K/A filed with the Commission on [May 1, 2023](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023, and September 30, 2023 filed with the SEC on [May 15, 2023](#), [August 7, 2023](#), and [November 9, 2023](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 19, 2023](#), [January 26, 2023](#), [February 8, 2023](#), [February 22, 2023](#), [February 23, 2023](#), [April 19, 2023](#), [April 24, 2023](#), [June 14, 2023](#), [June 27, 2023](#), [August 16, 2023](#), [August 28, 2023](#), and [September 26, 2023](#);
- the description of our common stock included in our Form 8-A filed with the SEC on [May 15, 2020](#), including any amendments or reports filed for the purpose of updating such description.

You may request a copy, without charge, of any of the documents incorporated by reference in this prospectus supplement and the accompanying prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

Windtree Therapeutics, Inc.
2600 Kelly Road, Suite 100
Warrington, Pennsylvania 18976
(215) 488-9300
Attention: Corporate Secretary

PROSPECTUS



\$100,000,000

Common Stock

Preferred Stock

Warrants

Debt Securities

Units

Subscription Rights

170,000 Shares

Common Stock Issuable Upon the Exercise of Warrants

Offered by Selling Stockholders

We may offer and sell up to \$100,000,000 in the aggregate of the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. The supplement may also add, update, or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement before you invest in any of our securities.

We may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers, or agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers, or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission, or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled “About this Prospectus” and “Plan of Distribution” for more information. No securities may be sold by us without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

As of December 22, 2021, the aggregate market value of our outstanding common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 was approximately \$39.2 million, which is based on 20,766,169 shares of common stock held by non-affiliates as of such date and a price of \$1.89 per share, the closing price of our common stock on October 25, 2021. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus is a part with a value of more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75,000,000. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to, and including, the date of this prospectus.

In addition, National Securities Corporation and any of its pledgees, donees, transferees, or other successors in interest, who we refer to in this prospectus as the selling stockholders, may offer and sell up to 170,000 shares of our common stock issuable upon the exercise of certain common stock purchase warrants from time to time under this prospectus. We will not receive any of the proceeds from the sale of the shares of our common stock by the selling stockholders.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE “RISK FACTORS” ON PAGE 6 OF THIS PROSPECTUS AND ANY SIMILAR SECTION CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT OR ANY DOCUMENT INCORPORATED BY REFERENCE THEREIN CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

The selling stockholders identified in this prospectus, or their permitted transferees or other successors-in-interest, may offer the shares of our common stock from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices, or at privately negotiated prices. We provide additional information about how the selling stockholders may sell their shares of common stock in the section entitled “Plan of Distribution” beginning on page 26 of this prospectus. We will not be paying any underwriting discounts or selling commissions in connection with any offering of the common stock by the selling stockholders under this prospectus.

Our common stock is listed on the Nasdaq Capital Market under the symbol “WINT.” On December 22, 2021, the last reported sale price of our common stock on the Nasdaq Capital Market was \$1.53 per share.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 3, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a “shelf” registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings up to a total dollar amount of \$100,000,000 as described in this prospectus. In addition, the selling stockholders may from time to time sell up to an aggregate amount of 170,000 shares of our common stock issuable upon the exercise of certain common stock purchase warrants in one or more offerings.

This prospectus provides you only with a general description of the securities that we may offer. Each time that we or the selling stockholders offer and sell securities, we or the selling stockholders will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific 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 or free writing prospectus, as applicable, may also add, update, or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the heading “Where You Can Find More Information.”

Neither we nor the selling stockholders have authorized anyone to provide you with any information or to make any representations other than those contained in, or incorporated by reference in, this prospectus, any applicable prospectus supplement, or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations, and prospects may have changed since those dates.

When we refer to “Windtree,” “we,” “our,” “us,” and the “Company” in this prospectus, we mean Windtree Therapeutics, Inc., and its consolidated subsidiaries unless otherwise specified. References to the “selling stockholders” refer to the stockholders listed herein under the heading “Selling Stockholders” and their respective pledgees, donees, permitted transferees, assignees, successors and others who later come to hold any of the selling stockholders’ interests in our securities other than through a public sale. When we refer to “you,” we mean the potential holders of the applicable series of securities.

Solely for convenience, tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these tradenames.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 filed with the SEC under the Securities Act of 1933, as amended, or the Securities Act, and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus 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 herein by reference for a copy of such contract, agreement, or other document.

We are currently subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and in accordance therewith files periodic reports, proxy statements, and other information with the SEC. Our SEC filings are available to you on the SEC's website at www.sec.gov and in the "Investors" section of our website at www.windtreetx.com. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

INCORPORATION BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on [March 29, 2021](#), and the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2020 from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on [April 30, 2021](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2021, June 30, 2021, and September 30, 2021 filed with the SEC on [May 13, 2021](#), [August 5, 2021](#), and [November 10, 2021](#), respectively;
- our Current Reports on Form 8-K (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), filed with the SEC on [February 9, 2021](#), [March 22, 2021](#), [March 24, 2021](#), [March 29, 2021](#), [April 30, 2021](#), [May 13, 2021](#), [June 16, 2021](#), [August 5, 2021](#), [September 20, 2021](#), [October 18, 2021](#), and [November 10, 2021](#); and
- The description of our common stock included in our Form 8-A filed with the SEC on [May 15, 2020](#), including any amendments or reports filed for the purpose of updating such description.

All reports and other documents we subsequently file (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) pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

Windtree Therapeutics, Inc.
2600 Kelly Road, Suite 100
Warrington, Pennsylvania 18976
(215) 488-9300
Attention: Chief Financial Officer

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus or any accompanying prospectus supplement.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any applicable prospectus supplement and the documents incorporated by reference may contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act about us and our subsidiaries. These forward-looking statements are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not statements of historical fact, and can be identified by the use of forward-looking terminology such as “believes,” “expects,” “may,” “will,” “could,” “should,” “projects,” “plans,” “goal,” “targets,” “potential,” “estimates,” “pro forma,” “seeks,” “intends” or “anticipates” or the negative thereof or comparable terminology. Forward-looking statements include, but are not limited to, statements concerning:

- our estimates regarding future results of operations, financial position, research and development costs, capital requirements, and our needs for additional financing;
- how long we can continue to fund our operations with our existing cash and cash equivalents;
- delays in our anticipated timelines and milestones and additional costs associated with the ongoing novel coronavirus, or COVID-19, pandemic and the overall impact of the COVID-19 pandemic on our business, financial condition and results of operations;
- the costs, timing, safety and efficacy, and results of our preclinical studies and clinical trials, as well as the number of required trials for regulatory approval and the criteria for success in such trials;
- legal and regulatory developments in the United States and foreign countries, including any actions or advice that may affect the design, initiation, timing, continuation, progress or outcome of clinical trials or result in the need for additional clinical trials;
- the difficulties and expenses associated with obtaining and maintaining regulatory approval of our product candidates, and the indication and labeling under any such approval;
- our plans and the plans of our licensee, Lee’s Pharmaceutical (HK) Ltd. in Asia and our respective abilities to successfully execute necessary clinical and business development activities in a timely manner, if at all, to support development and commercialize our product candidates;
- risks related to manufacturing active pharmaceutical ingredients, drug product, medical devices, and other materials we need;
- delays, interruptions, or failures in the manufacture and supply of our product candidates;
- the performance of third parties, both foreign and domestic, upon which we depend, including contract research organizations, contract manufacturing organizations, contractor laboratories, and independent contractors;
- the size and growth of the potential markets for our product candidates, the regulatory requirements in such markets, the rate and degree of market acceptance of our product candidates, and our ability to serve those markets;
- the success of competing therapies and products that are or become available;
- our ability to limit our exposure under product liability lawsuits;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- recently enacted and future legislation regarding the healthcare system in the United States;

- our ability to recruit or retain key scientific, commercial, or management personnel or to retain our executive officers;
- our ability to secure electronically stored work product, including clinical data, analyses, research, communications, and other materials necessary to gain regulatory approval of our product candidates, including those acquired from third parties, and assure the integrity, proper functionality and security of our internal computer and information systems and prevent or avoid cyber-attacks, malicious intrusion, breakdown, destruction, loss of data privacy, or other significant disruption; and
- the impact of the significant impairment of our intangible assets on our condensed consolidated balance sheet, and any future impairment charges that may be reported.

You should read this prospectus and the documents incorporated herein by reference completely and with the understanding that our actual future results may be materially different from what we currently expect. Our business and operations are and will be subject to a variety of risks, uncertainties, and other factors. Consequently, actual results and experience may materially differ from those contained in any forward-looking statements. Such risks, uncertainties, and other factors that could cause actual results and experience to differ from those projected include, but are not limited to, the risk factors discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

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

ABOUT WINDTREE THERAPEUTICS, INC.

Company Overview

We are a clinical-stage, biopharmaceutical, and medical device company focused on the development of novel therapeutics intended to address significant unmet medical needs in important acute care markets. Our development programs are primarily focused on the treatment of acute cardiovascular and acute pulmonary diseases. Our lead product candidate, istaroxime, is a first-in-class, dual-acting agent being developed to improve cardiac function in patients with acute heart failure, or AHF, with a potentially differentiated safety profile from existing treatments. Istaroxime demonstrated significant improvement in both diastolic and systolic aspects of cardiac function and was generally well tolerated in two phase 2 clinical trials. Istaroxime has been granted Fast Track designation for the treatment of AHF by the U.S. Food and Drug Administration. Based on the profile observed in the phase 2 clinical studies in AHF, where istaroxime significantly improved cardiac function and systolic blood pressure in acute decompensated heart failure patients, we initiated a phase 2 global clinical study to evaluate istaroxime for the treatment of early cardiogenic shock, a severe form of heart failure characterized by very low blood pressure and risk for hypo-perfusion to critical organs. We believe that istaroxime has the potential to fulfill an unmet need in early cardiogenic shock. Our heart failure cardiovascular portfolio also includes sarco (endo) plasmic reticulum Ca²⁺ -ATPase 2a, or SERCA2a, activators which activate SERCA2a. This research program is evaluating these preclinical product candidates, including oral and intravenous SERCA2a activator heart failure compounds. As potential oral agents, these candidates would be developed for chronic heart failure. In addition, our cardiovascular drug product candidates include rostafuroxin, a novel medicine for the treatment of hypertension in patients with a specific genetic profile. We are pursuing potential licensing arrangements and/or other strategic partnerships and do not intend to advance this product without securing such an arrangement or partnership.

Corporate History and Information

We were incorporated in the State of Delaware on November 6, 1992. Our principal executive offices are located at 2600 Kelly Road, Suite 100, Warrington, Pennsylvania 18976, and our telephone number is (215) 488-9300. Our website address is www.windtreetx.com. The information contained in, or accessible through, our website does not constitute part of this prospectus. We have included our website address as an inactive textual reference only.

RISK FACTORS

Investing in any securities offered pursuant to this prospectus and any applicable prospectus supplement involves risks. You should carefully consider the risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2020 and our Quarterly Reports on Form 10-Q for the three months ended March 31, 2021, three and six months ended June 30, 2021, and three and nine months ended September 30, 2021, as such risk factors may be updated in our other filings with the SEC pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act and the risk factors described in any applicable prospectus supplement and other filings we make with the SEC from time to time, which are incorporated by reference herein, before making an investment decision pursuant to this prospectus and any accompanying prospectus supplement. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. Additional risks not known to us or that we believe are immaterial may also significantly impair our business operations and could result in a loss of all or part of your investment in the offered securities.

Risks Related to the Common Stock Offered by the Selling Stockholders

If the selling stockholders sell significant amounts of our common stock, or the perception exists that these sales could occur, such events could cause our common stock price to decline.

This prospectus covers the resale from time to time by the selling stockholders of up to 170,000 shares of our common stock issuable upon the exercise of certain common stock purchase warrants. Once the registration statement, of which this prospectus is a part, is declared effective, all of these shares will be available for resale in the public market. If the selling stockholders sell significant amounts of our common stock following the effectiveness of the registration statement of which this prospectus is a part, the market price of our common stock could decline. Further, the perception of these sales or issuances could impair our ability to raise additional capital through the sale of our equity securities.

None of the proceeds from the sale of shares of our common stock by the selling stockholders in this offering will be available to us.

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders in this offering. The selling stockholders will receive all proceeds from the sale of such shares. Consequently, none of the proceeds from such sale by the selling stockholders will be available to us for our use. See “Use of Proceeds.”

USE OF PROCEEDS

Except as set forth in any accompanying prospectus supplement, we intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless the applicable prospectus supplement provides otherwise. General corporate purposes may include, and are not limited to, working capital, repayment of debt (including debt service, principal, and interest), acquisitions or investments in businesses, and capital expenditures.

Additional information on the use of net proceeds from the sale of securities that we may offer from time to time by this prospectus will be set forth in the applicable prospectus supplement relating to a particular offering.

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders. We will, however, receive the net proceeds of any common stock purchase warrants exercised for cash by the selling stockholders. We expect to use the proceeds received from the exercise of the common stock purchase warrants, if any, for general working capital purposes.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our Amended and Restated Certificate of Incorporation, as amended, or our Certificate of Incorporation, which has been publicly filed with the SEC. See “Where You Can Find More Information.” For a complete description, you should refer to our Certificate of Incorporation and Amended and Restated By-Laws, or our By-Laws, copies of which are incorporated by reference as exhibits to the registration statement of which this prospectus is a part.

General

Our Certificate of Incorporation authorizes 120,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share.

Common Stock

As of December 22, 2021, there were 28,268,926 shares of our common stock issued and outstanding. Subject to any preferential rights of any preferred stock created by our board of directors, or the Board, holders of our common stock are entitled to such dividends, if any, as our Board may declare from time to time out of funds that we can legally use to pay dividends.

Holders of our common stock are entitled to one vote for each share of common stock and do not have any right to cumulate votes in the election of directors. Upon our liquidation, dissolution or winding-up, holders of our common stock will be entitled to receive on a proportionate basis any assets remaining after provision for payment of creditors and after payment of any liquidation preferences to holders of preferred stock. Holders of our common stock have no preemptive rights and no conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. All the outstanding shares of common stock are, and the shares offered by this prospectus, when issued and paid for, will be, validly issued, fully paid and nonassessable. The rights and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may issue.

Preferred Stock

Our Board may divide the preferred stock into any number of series, fix the designation and number of shares of each such series, and determine or change the designation, relative rights, preferences and limitations of any series of preferred stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of our common stock.

Common Stock Warrants

March 2021 Warrants

On March 25, 2021, we completed a registered public offering, or the March 2021 Offering, of an aggregate of 9,230,500 units, with each unit consisting of one share of common stock and a warrant, or the March 2021 Warrants. The March 2021 Warrants are immediately exercisable for shares of common stock at a price of \$3.60 per share and expire five years from the date of issuance. The shares of common stock and the March 2021 Warrants were immediately separable and were issued separately in the March 2021 Offering. As of December 22, 2021, there are 9,230,500 March 2021 Warrants currently outstanding.

May 2020 Warrants

On May 22, 2020, we completed a registered public offering for the purchase of an aggregate of 3,172,413 units consisting of: (i) one share of our common stock and (ii) a warrant to purchase one share of our common stock at an exercise price per share of common stock equal to \$7.975, or the May 2020 Warrants. The May 2020 warrants were immediately exercisable upon issuance, in whole or in part, and expire five years from the date of issuance. The May 2020 Warrants may not be exercised to the extent that, following such exercise, the holder would beneficially own more than 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of our outstanding shares of common stock, except that upon at least sixty-one (61) days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's May 2020 Warrants up to 9.99% (or up to 19.99% upon our prior written approval) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the May 2020 Warrants. The May 2020 Warrants contain customary provisions that adjust the exercise price and the number of shares in the event of certain corporate transactions. As of December 22, 2021, there are 3,154,663 May 2020 Warrants currently outstanding.

December 2019 Private Placement Warrants

On December 6, 2019, we completed a private placement offering with select institutional investors for the purchase of an aggregate of 2,916,666 shares of common stock and warrants to purchase up to 1,458,334 shares of our common stock, or the December 2019 Warrants, at an exercise price equal to \$12.09 per share. The December 2019 Warrants may be exercised on the six-month anniversary of the date of issuance and through the 5-year anniversary of the date of issuance. The December 2019 Warrants may not be exercised to the extent that the holder thereof would, following such exercise or conversion, beneficially own more than 4.99% (or such other percent as designated by each holder not to exceed 19.99%) of our outstanding shares of common stock. The December 2019 Warrants contain customary provisions that adjust the exercise price and the number of shares of common stock underlying the December 2019 Warrants in the event of certain corporate transactions. On May 6, 2020, we entered into an amendment with certain holders of the December 2019 Warrants pursuant to which the exercise price of the December 2019 Warrants was amended from \$12.09 to \$9.67 if the December 2019 Warrants were exercised, in whole or in part, prior to December 5, 2021. As of December 22, 2021, there are 1,458,334 December 2019 Warrants currently outstanding.

December 2018 Private Placement Warrants

On December 21, 2018, we completed a private placement offering with select institutional investors for the purchase of an aggregate of 3,928,513 shares of our common stock. In connection with this financing, we issued (i) warrants to purchase an aggregate of 667,847 shares of common stock, at an exercise price equal to \$11.04 per share, which were exercisable through the 18-month anniversary of the date of issuance, and (ii) warrants to purchase an aggregate of 1,296,410 shares of common stock, at an exercise price equal to \$12.15 per share, which are exercisable through the 5-year anniversary of the date of issuance, or the December 2018 Long-Term Warrants. The December 2018 Long-Term Warrants (i) may not be exercised to the extent that, following such exercise, the holder would beneficially own more than 9.99% (or other percent as designated by each holder) of our outstanding shares of common stock, and (ii) otherwise contain customary provisions that adjust the exercise price and the number of shares of common stock into which they may be exercised in the event of certain corporate transactions. As of December 22, 2021, there are 1,296,410 December 2018 Long-Term Warrants currently outstanding.

AEROSURF Warrants (December 2018)

In connection with our acquisition of CVie Investments Limited, an exempted company with limited liability incorporated under the laws of the Cayman Islands, our board of directors declared a dividend to the holders of record of our outstanding shares of common stock, and holders of certain warrants to purchase common stock, that were outstanding on December 20, 2018, of a 0.6148 AEROSURF warrant, for each share of common stock held by a stockholder or each warrant held by a warrant holder, as applicable, on the record date, or the AEROSURF Warrants. The AEROSURF Warrants are exercisable for an aggregate of 987,722 shares of common stock. Each AEROSURF Warrant has a term of five years and provides for automatic exercise into one share of common stock, without the payment of any exercise price, upon the Company's public announcement of the dosing of the first human subject enrolled in the Company's phase 3 clinical trial for AEROSURF. As of December 22, 2021, there are 987,722 AEROSURE Warrants currently outstanding.

Battelle Collaboration Agreement Warrants (October 2014 and December 2018)

We entered into the Battelle Collaboration Agreement with Battelle Memorial Institute, or Battelle, in October 2014, which was amended in August 2015 and March 2016, for the development of a new version of our Aerosol Delivery System. In connection with the Battelle Collaboration Agreement, on October 10, 2014, we issued warrants to Battelle to purchase 1,190 shares of common stock, or the Battelle Warrants, at an exercise price of \$4,200.00 per share, which expire on October 10, 2024. In December 2018, we and Battelle entered into a restructuring agreement, which reflected the terms of an October 2017 nonbinding memorandum of understanding, in which we outlined terms to restructure approximately \$4.3 million then due to Battelle, under a Research and Development Services Agreement, dated June 22, 2012, and the Battelle Collaboration Agreement. In connection with the restructuring agreement with Battelle, on December 11, 2018, we issued additional warrants to Battelle to purchase 25,000 shares of common stock, or the Restructuring Warrants, exercisable at a price of \$19.50 per share, which expire on December 7, 2023. As of December 22, 2021, there are 25,000 and 1,190 Battelle Warrants and Restructuring Warrants outstanding, respectively.

Panacea Venture Management Company Ltd. Warrants (July 2018)

On July 2, 2018, we issued to Panacea Venture Management Company Ltd., or Panacea, a Secured Convertible Promissory Note, or the Panacea Note, with respect to a loan facility in the aggregate amount of up to \$1.5 million, which was funded in two loans of \$1.0 million on the date of the Panacea Note and \$0.5 million on July 23, 2018. In connection with the Panacea Note, we issued to Panacea warrants to purchase 62,500 shares of common stock, or the July 2018 Warrants, at an exercise price of \$12.00 per share. The July 2018 Warrants are exercisable at any time beginning six months after the date of issuance and through the fifth anniversary of the date of issuance. The July 2018 Warrants may not be exercised to the extent that the holder thereof would, following such exercise, beneficially own more than 9.99% (or such other percent as designated by each holder) of our outstanding shares of common stock, which percentage may be increased, decreased or waived by such holder upon sixty-one (61) days' notice to us. The July 2018 Warrants also contain customary provisions that adjust the exercise price and the number of shares of common stock underlying the July 2018 Warrants in the event of certain corporate transactions. As of December 22, 2021, there are 62,500 July 2018 Warrants currently outstanding.

LPH II Warrants (April 2018)

On March 30, 2018, LPH II Investments Ltd. invested \$2.6 million in us and acquired 180,555 shares of our common stock and 45,139 warrants to purchase 45,139 shares of our common stock, or the April 2018 Warrants, at an exercise price of \$16.56 per share. The April 2018 Warrants may be exercised at any time beginning six months after the date of issuance and through the seventh anniversary of the date of issuance. The April 2018 Warrants may not be exercised to the extent that the holder thereof would, following such exercise, beneficially own more than 9.99% (or such other percent as designated by each holder) of the Company's outstanding shares of common stock, which percentage may be increased, decreased or waived by such holder upon sixty-one (61) days' notice to us. The April 2018 Warrants also contain customary provisions that adjust the exercise price and the number of shares of common stock underlying the April 2018 Warrants in the event of certain corporate transactions. As of December 22, 2021, there are 45,139 April 2018 Warrants currently outstanding.

February 2017 Private Placement Warrants

On February 15, 2017, we completed a private placement offering of 7,049 Series A Convertible Preferred Stock units. Each unit consisted of: (i) one share of Series A Convertible Preferred Stock, which was convertible into 16 shares of common stock; and (ii) warrants to purchase 16 shares of common stock, or the February 2017 Warrants, at an exercise price equal to \$82.20 per share. The February 2017 Warrants may be exercised at any time beginning six months after the date of issuance and through the seventh anniversary of the date of issuance. The February 2017 Warrants may not be converted or exercised to the extent that the holder would, following such exercise or conversion, beneficially own more than 9.99% (or other lesser percent as designated by each holder) of our outstanding shares of common stock. As of December 22, 2021, there are 117,483 February 2017 Warrants currently outstanding.

July 2015 Warrants

On July 22, 2015, we completed a registered public offering of 29,861 Series A units and 50,000 Series B units. Each Series A unit consisted of one share of common stock and a Series A warrant, or the July 2015 Warrants, to purchase one share of common stock at an exercise price of \$588.00 per share. Each Series B unit consisted of a fully paid pre-funded Series B warrant to purchase one share of common stock at an exercise price of \$504.00 per share and a Series B warrant to purchase one share of common stock at an exercise price of \$588.00 per share. As of December 31, 2017, all pre-funded Series B warrants were exercised. The July 2015 Warrants are exercisable immediately through the seventh anniversary of the date of issuance. The July 2015 Warrants may not be exercised to the extent that the holder would, following such exercise, beneficially own more than 9.99% (or 4.99% as may be elected by each holder) of our outstanding shares of common stock. As of December 22, 2021, there are 79,861 July 2015 Warrants currently outstanding.

Anti-Takeover Effects of Provisions of the General Corporation Law of the State of Delaware, our Certificate of Incorporation, and our By-Laws

Certificate of Incorporation and By-Laws

Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the voting power of our shares of common stock outstanding will be able to elect all of our directors. According to Section 242 of the General Corporation Law of the State of Delaware, or the DGCL, and our By-Laws, the affirmative vote of holders of at least a majority of the voting power of all of the then outstanding shares of voting stock, voting as a single class, is required to amend certain provisions of our Certificate of Incorporation. Further, our By-Laws provide that stockholder actions may be effected at a duly called meeting of stockholders or by written consent.

Our By-Laws further provide the Board with the exclusive right to increase or decrease the size of the Board (not less than three), and with the right to elect directors to fill a vacancy created by the expansion of the Board or the resignation, death, or removal of a director.

Section 203 of the DGCL

As a corporation organized under the laws of the State of Delaware, we are subject to Section 203 of the DGCL, which restricts our ability to enter into business combinations with an interested stockholder, the owner of 15% or more of the corporation's voting stock, or an interested stockholder's affiliates or associates, for a period of three years after such person became an interested stockholder. These restrictions do not apply if:

- before becoming an interested stockholder, our Board approves either the business combination or the transaction in which the stockholder becomes an interested stockholder;
- upon consummation of the transaction in which the stockholder becomes an interested stockholder, the interested stockholder owns at least 85% of our voting stock outstanding at the time the transaction commenced, subject to exceptions; or
- on or after the date a stockholder becomes an interested stockholder, the business combination is both approved by our Board and authorized at an annual or special meeting of our stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Choice of Forum

Our Certificate of Incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for: (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or to our stockholders, (iii) any action asserting a claim against us, our directors, officers, or employees arising pursuant to any provision of the DGCL or our Certificate of Incorporation or our By-laws, or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine. This exclusive forum provision would not apply to suits brought to enforce any liability or duty created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. To the extent that any such claims may be based upon federal law claims, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder.

Limitations of Liability and Indemnification Matters

Pursuant to our By-Laws, we indemnify our directors to the maximum extent permissible under the DGCL. In addition, we have entered into indemnity agreements with our officers and directors that provide, among other things, that we will indemnify them, under the circumstances and to the extent provided for therein, for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings to which he or she is or may be made a party by reason of his or her position as a director, officer, or other agent of ours, and otherwise to the fullest extent permitted under the DGCL and our By-Laws. These provisions may be held not to be enforceable for violations of the federal securities laws.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "WINT."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. The transfer agent and registrar's address is 1 State Street, 30th Floor, New York, New York 10004.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement or free writing prospectus, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated, or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a third party to be identified therein, as trustee. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. In the summary below, we have included references to the section numbers of the indenture so that you can easily locate these provisions. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

As used in this section only, “Windtree,” “Windtree Therapeutics,” “the Company,” “we,” “our,” or “us” refer to Windtree Therapeutics, Inc., a Delaware corporation, excluding our consolidated subsidiaries, unless expressly stated or the context otherwise requires.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer’s certificate, or by a supplemental indenture. (Section 2.2). The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be issued in one or more series. Unless otherwise set forth in a resolution of our board of directors, in an officer’s certificate, or by a supplemental indenture detailing the adoption of a series of debt securities, all securities in a series shall be identical. Debt securities may differ between series with respect to any term, provided, that all series of debt securities shall be equally and ratably entitled to the benefits of the indenture. (Section 2.1). We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount, and the following terms of the debt securities, if applicable:

- the title and ranking of the debt securities (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- any limit on the aggregate principal amount of the debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the interest rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such interest rate or rates (including any commodity, commodity index, stock exchange index, or financial index) at which the debt securities will bear interest, the date or dates from which interest, if any, will accrue, the date or dates on which interest, if any, will commence and be payable, and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, premium, if any, and interest, if any, is payable on the debt securities (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;
- the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;
- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and in the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

- the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities, which may be United States Dollars or any foreign currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies, or currency units in which payment of principal of, premium and interest on the debt securities will be made;
- if payments of principal of, premium, if any, or interest, if any, on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium, if any, or interest, if any, on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to, deletion of, or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any addition to, deletion of, or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
- any depositaries, interest rate calculation agents, exchange rate calculation agents, or other agents with respect to the debt securities;
- the provisions, if any, relating to conversion or exchange of any debt securities of such series, including if applicable, the conversion or exchange price and period, provisions as to whether conversion or exchange will be mandatory, the events requiring an adjustment of the conversion or exchange price, and provisions affecting conversion or exchange;
- any other terms of the debt securities, which may supplement, modify, or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and
- whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees. (Section 2.2).

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, or DTC, or a nominee of DTC (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement. Except as set forth under the heading “Global Debt Securities and Book-Entry System” below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. (Section 2.4). No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange. (Section 2.7).

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder. (Section 2.7).

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository. Please see “Global Securities.”

Covenants

Unless otherwise indicated in this prospectus or the applicable prospectus supplement, our debt securities may not have the benefit of any covenant that limits or restricts our business or operations, the pledging of our assets, or the incurrence by us of indebtedness. We will describe in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities (Article IV).

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger, and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer, or lease all or substantially all of our properties and assets to any person (a “successor person”) unless:

- we are the surviving corporation or the successor person (if other than us) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction or a corporation or comparable legal entity organized under the laws of a foreign jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and
- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into, or transfer all or part of its properties to us. (Section 5.1).

Events of Default

Unless otherwise specified in the resolutions of our board of directors, officer’s certificate, or supplemental indenture establishing a series of debt securities, “Event of Default” means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of thirty (30) days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the thirty (30)-day period);

- default in the payment of principal of any security of that series at its maturity;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of sixty (60) days after we receive written notice from the trustee or Windtree and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain voluntary or involuntary events of bankruptcy, insolvency, or reorganization of the Company; and
- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement. (Section 6.1).

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. (Section 6.1). The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within thirty (30) days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof. (Section 6.1).

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency, or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. (Section 6.2). We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee may refuse to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing such duty or exercising such right or power. (Section 7.1(e)). Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method, and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series. (Section 6.12).

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within sixty (60) days. (Section 6.7).

No holder of debt securities under the indenture may use the indenture to prejudice the rights of another holder or to obtain a preference or priority over another holder of debt securities. (Section 6.7).

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment. (Section 6.8).

The indenture requires us, within one hundred twenty (120) days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. (Section 4.3). If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall mail to each holder of the securities of that series notice of a Default or Event of Default within ninety (90) days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default (except if such Default or Event of Default has been validly cured or waived before the trustee gives such notice). The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities. (Section 7.5).

Modification and Waiver

We and the trustee may modify, amend or supplement the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture described above under the heading “Consolidation, Merger, and Sale of Assets;”
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;
- to comply with the applicable procedures of the applicable depository;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act. (Section 9.1).

We may also modify and amend the indenture with the written consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the written consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement, or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);

- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security. (Section 9.3).

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. (Section 9.2). The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration. (Section 6.13).

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the irrevocable deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred. (Section 8.3).

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading “Consolidation, Merger, and Sale of Assets” and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series (“covenant defeasance”)

The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

- delivering to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the beneficial owners of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred. (Section 8.4).

No Personal Liability of Directors, Officers, Employees or Stockholders

None of our past, present, or future directors, officers, employees, or stockholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability.

This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy. (Section 10.8).

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

The indenture will provide that we, the trustee, and the holders of the debt securities (by their acceptance of the debt securities) irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the debt securities or the transactions contemplated thereby.

The indenture will provide that any legal suit, action or proceeding arising out of or based upon the indenture or the transactions contemplated thereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of New York, and we, the trustee and the holder of the debt securities (by their acceptance of the debt securities) irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit, action or proceeding. The indenture will further provide that service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party's address set forth in the indenture will be effective service of process for any suit, action or other proceeding brought in any such court. The indenture will further provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the courts specified above and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum. (Section 10.10).

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock or preferred stock or of debt securities. We may issue warrants independently or together with other securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and the investors or a warrant agent. The following summary of material provisions of the warrants and warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. We urge you to read the applicable prospectus supplement and any related free writing prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

The particular terms of any issue of warrants will be described in the applicable prospectus supplement. Those terms may include:

- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants to purchase such shares and the price at which such number of shares may be purchased upon such exercise;
- the designation, stated value, and terms (including, without limitation, liquidation, dividend, conversion, and voting rights) of the series of preferred stock purchasable upon exercise of warrants to purchase preferred stock;
- the principal amount of debt securities that may be purchased upon exercise of a debt warrant and the exercise price for the warrants, which may be payable in cash, securities, or other property;
- the date, if any, on and after which the warrants and the related debt securities, preferred stock, or common stock will be separately transferable;
- the terms of any rights to redeem or call the warrants;
- the date on which the right to exercise the warrants will commence and the date on which the right will expire;
- United States Federal income tax consequences applicable to the warrants; and
- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled to:

- vote, consent, or receive dividends;
- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter; or
- exercise any rights as stockholders of Windtree.

Each warrant will entitle its holder to purchase the principal amount of debt securities or the number of shares of preferred stock or common stock at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

A holder of warrant certificates may exchange them for new warrant certificates of different denominations, present them for registration of transfer and exercise them at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement. Until any warrants to purchase debt securities are exercised, the holder of the warrants will not have any rights of holders of the debt securities that can be purchased upon exercise, including any rights to receive payments of principal, premium or interest on the underlying debt securities or to enforce covenants in the applicable indenture. Until any warrants to purchase common stock or preferred stock are exercised, the holders of the warrants will not have any rights of holders of the underlying common stock or preferred stock, including any rights to receive dividends or payments upon any liquidation, dissolution or winding up on the common stock or preferred stock, if any.

Warrant Agent

The warrant agent for any warrants will be set forth in the applicable prospectus supplement.

Description of Outstanding Warrants

See “Description of Our Capital Stock — Common Stock Warrants” for a description of our outstanding warrants.

DESCRIPTION OF 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 United States federal income tax considerations applicable to the units; and
- any other terms of the units and of the securities comprising the units.

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

DESCRIPTION OF SUBSCRIPTION RIGHTS

As specified in any applicable prospectus supplement, we may issue subscription rights consisting of one or more debt securities, shares of preferred stock, shares of common stock, or any combination of such securities.

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in any applicable prospectus supplement, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depository to its nominee or by the nominee to the depository, or by the depository or its nominee to a successor depository or to a nominee of the successor depository.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a “banking organization” within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- a “clearing agency” registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants’ accounts, thereby eliminating the need for physical movement of securities certificates. “Direct participants” in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations, and other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC’s records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants’ records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC’s records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depository and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer, or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depository or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below and unless if otherwise provided in the description of the applicable securities herein or in the applicable prospectus supplement, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least fifteen (15) days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions, and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depository with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depository is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depository for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depository is not appointed within ninety (90) days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;
- we determine, in our sole discretion, not to have such securities represented by one or more global securities; or
- an Event of Default has occurred and is continuing with respect to such series of securities, we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities.

Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depository directs. It is expected that these directions will be based upon directions received by the depository from its participants with respect to ownership of beneficial interests in the global securities.

We have obtained the information in this section and elsewhere in this prospectus concerning DTC and DTC's book-entry system from sources that are believed to be reliable, but we take no responsibility for the accuracy of this information.

Euroclear and Clearstream

If so provided in the applicable prospectus supplement, you may hold interests in a global security through Clearstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as "Euroclear," either directly if you are a participant in Clearstream or Euroclear or indirectly through organizations which are participants in Clearstream or Euroclear. Clearstream and Euroclear will hold interests on behalf of their respective participants through customers' securities accounts in the names of Clearstream and Euroclear, respectively, on the books of their respective U.S. depositories, which in turn will hold such interests in customers' securities accounts in such depositories' names on DTC's books.

Clearstream and Euroclear are securities clearance systems in Europe. Clearstream and Euroclear hold securities for their respective participating organizations and facilitate the clearance and settlement of securities transactions between those participants through electronic book-entry changes in their accounts, thereby eliminating the need for physical movement of certificates.

Payments, deliveries, transfers, exchanges, notices, and other matters relating to beneficial interests in global securities owned through Euroclear or Clearstream must comply with the rules and procedures of those systems. Transactions between participants in Euroclear or Clearstream, on one hand, and other participants in DTC, on the other hand, are also subject to DTC's rules and procedures.

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers and other transactions involving any beneficial interests in global securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers, and other institutions are open for business in the United States.

Cross-market transfers between participants in DTC, on the one hand, and participants in Euroclear or Clearstream, on the other hand, will be effected through DTC in accordance with the DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective U.S. depositories; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its U.S. depository to take DTC, and making or receiving payment in accordance with normal procedures for same-day fund settlement. Participants in Euroclear or Clearstream may not deliver instructions directly to their respective U.S. depositories.

Due to time zone differences, the securities accounts of a participant in Euroclear or Clearstream purchasing an interest in a global security from a direct participant in DTC will be credited, and any such crediting will be reported to the relevant participant in Euroclear or Clearstream, during the securities settlement processing day (which must be a business day for Euroclear or Clearstream) immediately following the settlement date of DTC. Cash received in Euroclear or Clearstream as a result of sales of interests in a global security by or through a participant in Euroclear or Clearstream to a direct participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Other

The information in this section of this prospectus concerning DTC, Clearstream, Euroclear and their respective book-entry systems has been obtained from sources that we believe to be reliable, but we do not take responsibility for this information. This information has been provided solely as a matter of convenience. The rules and procedures of DTC, Clearstream and Euroclear are solely within the control of those organizations and could change at any time. Neither we nor the trustee nor any agent of ours or of the trustee has any control over those entities and none of us takes any responsibility for their activities. You are urged to contact DTC, Clearstream and Euroclear or their respective participants directly to discuss those matters. In addition, although we expect that DTC, Clearstream and Euroclear will perform the foregoing procedures, none of them is under any obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time. Neither we nor any agent of ours will have any responsibility for the performance or nonperformance by DTC, Clearstream and Euroclear or their respective participants of these or any other rules or procedures governing their respective operations.

SELLING STOCKHOLDERS

This prospectus relates to the possible resale by certain of our stockholders, who we refer to in this prospectus as the “selling stockholders,” from time to time of up to an aggregate of 170,000 shares of our common stock issuable upon the exercise of certain common stock purchase warrants issued and outstanding prior to the original date of filing of the registration statement of which this prospectus forms a part. When we refer to “selling stockholders” in this prospectus, we mean the stockholders listed in the table below, and any pledgees, donees, transferees, assignees, and others who later come to hold some or all of the common stock covered by this prospectus.

The table below presents information regarding the selling stockholders, the shares of common stock beneficially owned by each, the shares of common stock that they may sell or otherwise dispose of from time to time under this prospectus and the number and percentage of our common stock each of the selling stockholders will own assuming all of the shares covered by this prospectus are sold by the selling stockholders.

We have issued common stock purchase warrants, or the National Warrants, dated February 2, 2021, to National Securities Corporation, or National, in which we agreed, among other matters, to register for resale the shares of common stock issuable upon the exercise of the National Warrants. In accordance with the terms of the National Warrants, we are registering 170,000 of such shares issuable upon the exercise of the National Warrants for resale under the registration statement of which this prospectus forms a part. In addition to serving as a financial advisor to us, National was an underwriter for two of our registered public offerings in the past three years, in May 2020 and March 2021, respectively. For additional information regarding material relationships between the selling stockholders (or their affiliates) and us, please refer to the documents filed by us with the SEC and incorporated by reference herein, including the exhibits thereto.

We do not know whether, when, or in what amounts the selling stockholders may sell or otherwise dispose of the shares of common stock covered hereby. The selling stockholders might not sell or dispose of any or all of the shares covered by this prospectus or may sell or dispose of some or all of the shares other than pursuant to this prospectus. Because the selling stockholders may not sell or otherwise dispose of some or all of the shares covered by this prospectus and because there are currently no agreements, arrangements or understandings with respect to the sale or other disposition of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that all of the shares of common stock covered by this prospectus will be sold by the selling stockholders and that any other shares of our common stock beneficially owned by these selling stockholders will continue to be beneficially owned.

The information in the table is based on 28,268,926 shares outstanding as of December 22, 2021. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and generally includes voting or investment power with respect to securities and including any securities that grant the selling stockholder the right to acquire shares of common stock within 60 days of December 22, 2021. Other than the transactions referred to herein and in documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, the selling stockholders have not within the past three years had any position, office or other material relationship with us or any of our subsidiaries other than as a holder of our securities.

Name of Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to the Offering (1)		Maximum Number of Shares that May Be Offered Pursuant to this Prospectus	Shares Beneficially Owned After the Sale of the Maximum Number of Shares Offered Hereby (2)	
	Number	Percent		Number	Percent
	National Securities Corporation (3)	170,000		*	170,000

*less than 1%

- (1) “Beneficial ownership” is a term broadly defined by the SEC in Rule 13d-3 under the Exchange Act and includes more than the typical form of stock ownership, that is, stock held in the person’s name. The term also includes what is referred to as “indirect ownership,” meaning ownership of shares as to which a person has or shares investment power. For purposes of this table, a person or group of persons is deemed to have “beneficial ownership” of any shares that are currently exercisable or exercisable within 60 days of December 22, 2021.
- (2) Assumes that all shares of common stock being registered under the registration statement of which this prospectus forms a part that are held by the selling stockholders are resold to third parties.
- (3) The number of shares beneficially owned includes 170,000 shares of common stock issuable upon the exercise of common stock purchase warrants held by the selling stockholder. The address for National Securities Corporation is 200 Vesey Street, 25th Floor, New York, NY 10281.

The selling stockholders listed in the above table may have sold or transferred, in transactions pursuant to this prospectus or exempt from the registration requirements of the Securities Act, some or all of its shares since the date as of which the information is presented in the above table. Information concerning the selling stockholders may change from time to time and any such changed information will be set forth in supplements to this prospectus or amendments to the registration statement of which this prospectus is a part if and when necessary.

We have agreed to pay all costs, expenses, and fees relating to the registration of the shares of our common stock covered by this prospectus. The selling stockholders have agreed to pay any underwriting discounts and commissions, or similar charges incurred for the sale of such shares of our common stock.

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 or through underwriters or dealers, through agents and/or directly to one or more purchasers. The securities may be distributed 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.

The selling stockholders may from time to time sell all or a portion of the shares of our common stock beneficially owned by them and offered hereby directly or through one or more underwriters, broker-dealers, or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for discounts or commissions payable to such underwriters or broker-dealers. The selling stockholders may use any one or more of the following methods (which may involve crosses or block transactions) when selling securities:

- on any national stock exchange or U.S. interdealer quotation system of a registered national securities association on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- underwritten transactions;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such securities at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell all or a portion of their common stock in reliance upon Rule 144 under the Securities Act or Section 4(a)(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions. The selling stockholders may also transfer, devise or gift such securities by other means not described in this prospectus. The selling stockholders are not obligated to, and there is no assurance that the selling stockholders will, sell all or any of the securities we are registering.

Each time that we or the selling stockholders sell securities covered by this prospectus, we or the selling stockholders will (to the extent required) provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms and conditions of the offering of such securities, including the offering price of the securities and the proceeds to us, if applicable.

Offers to purchase the securities being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the securities from time to time. Any agent involved in the offer or sale of our securities will be identified in a prospectus supplement.

If a dealer is utilized in the sale of the securities being offered by this prospectus, the securities will be sold to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If an underwriter is utilized in the sale of the securities being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions, or commissions from the underwriters and/or commissions from the purchasers for which they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a “best-efforts” basis and a dealer will purchase securities as a principal and may then resell the securities at varying prices to be determined by the dealer.

Any compensation paid to underwriters, dealers, or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers will be provided in the applicable prospectus supplement. The selling stockholders as well as underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We are required to pay certain fees and expenses incurred by us incident to the registration of the securities held by the selling stockholders. We may enter into agreements to indemnify underwriters, dealers, and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

Any common stock or preferred stock will be listed on the Nasdaq Capital Market, but any other securities may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

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

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

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

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Troutman Pepper Hamilton Sanders LLP, Philadelphia, Pennsylvania. 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. As appropriate, legal counsel representing the underwriters, dealers, or agents will be named in the accompanying prospectus supplement and may opine as to certain legal matters.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.



**Up to \$2,054,024
Common Stock**

PROSPECTUS SUPPLEMENT

Ladenburg Thalmann

The date of this prospectus supplement is November 9, 2023