PROSPECTUS



\$15,000,000

COMMON STOCK

We may offer shares of common stock from time to time, up to an aggregate offering amount of \$15,000,000, on terms to be determined at the time of offering.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "AFIB." On December 19, 2022, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$0.8938 per share.

Specific terms of the transaction will be provided in supplements to this prospectus. We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus (including the documents incorporated by reference herein) and any amendments or supplements carefully before you make your investment decision.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus and the comparable section of any applicable prospectus supplement. If any underwriters are involved in the sale of the securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in the applicable prospectus supplement.

We are an emerging growth company and smaller reporting company as defined under the federal securities laws and, as such, are eligible for reduced public company reporting requirements.

As of December 19, 2022, 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 \$20.3 million, which is based on 22,692,114 shares of common stock held by non-affiliates as of such date and a price of \$0.8938 per share, the closing price of our common stock on December 19, 2022. 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 million. 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.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 2 of this prospectus, and under similar headings in the documents that are incorporated by reference into this prospectus.

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

The date of this prospectus is December 21, 2022

TABLE OF CONTENTS

	Page
About This Prospectus	1
<u>Trademarks</u>	$\overline{2}$
The Company	2
Risk Factors	2
Cautionary Note Regarding Forward-Looking Statements	<u>3</u>
<u>Use of Proceeds</u>	<u>3</u>
Description of Capital Stock	<u>3</u>
Plan of Distribution	9
<u>Validity of Securities</u>	<u>12</u>
<u>Experts</u>	<u>12</u>
Where You Can Find More Information	<u>12</u>
Information Incorporated by Reference	<u>12</u>
;	
1	

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC"), using a "shelf" registration process. Under this shelf registration process, we may from time to time sell common stock, in one or more offerings up to a total dollar amount of \$15,000,000. We have provided to you in this prospectus a general description of the common stock we may offer. Each time we sell securities under this shelf registration, we will, to the extent required by law, provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus and the prospectus supplement or any related free writing prospectus, you should rely on the information in the prospectus supplement or the related free writing prospectus; provided that 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 or any prospectus supplement or any related free writing prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in this prospectus, the documents incorporated by reference in this prospectus and any prospectus supplement that we may provide to you. We have not authorized anyone to provide you with information different from that contained in this prospectus or any prospectus supplement. If anyone provides you with different or additional information, you should not rely on it. This prospectus may only be used where it is legal to sell these securities. This prospectus is not an offer to sell, or a solicitation of an offer to buy, in any state where the offer or sale is prohibited. The information in this prospectus, any prospectus supplement or any documents incorporated herein or therein by reference is accurate as of the date contained on the cover of such documents. Neither the delivery of this prospectus or any prospectus supplement, nor any sale made under this prospectus or any prospectus supplement will, under any circumstances, imply that the information in this prospectus or any prospectus supplement is correct as of any date after the date of this prospectus or any such prospectus supplement.

You should read both this prospectus and any prospectus supplement, including all documents incorporated by reference herein and therein, together with the additional information described under "Where You Can Find More Information" below.

The information contained in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus or in any prospectus supplement, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and

research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors. See "Risk Factors" beginning on page 2 of this prospectus, as well as those risk factors described in any applicable prospectus supplement and in the documents we incorporate by reference. These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "Cautionary Note Regarding Forward-Looking Statements" beginning on page 3 of this prospectus.

Unless the context otherwise indicates, the terms "Acutus," "Company," "we," "us" and "our" as used in this prospectus refer to Acutus Medical, Inc. and our subsidiaries, and the term "common stock" refers to our common stock, par value \$0.001 per share. The phrase "this prospectus" refers to this prospectus and any applicable prospectus supplement, unless the context otherwise requires.

TRADEMARKS

This document or the documents incorporated by reference herein contain references to trademarks and service marks belonging to us or other entities. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend the use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of it by, any other companies.

THE COMPANY

We are an arrhythmia management company focused on improving the way cardiac arrhythmias are diagnosed and treated. Despite several decades of effort by the incumbents in this field, the clinical and economic challenges associated with arrhythmia treatment continue to be a huge burden for patients, providers and payors. We are committed to advancing the field of electrophysiology with a unique array of products and technologies which will enable more physicians to treat more patients more effectively and efficiently. Through internal product development, acquisitions and global partnerships, we have established a global sales presence delivering a broad portfolio of highly differentiated electrophysiology products. Our goal is to provide our customers with a complete solution for catheter-based treatment of cardiac arrhythmias in each of our geographic markets.

Our product portfolio includes novel access catheters, diagnostic and mapping catheters, ablation catheters, mapping and imaging consoles and accessories, as well as supporting algorithms and software programs. Our foundational and most highly differentiated product is our AcQMap imaging and mapping system. Our paradigm-shifting AcQMap System offers a novel approach to mapping the drivers and maintainers of arrhythmias with unmatched speed and precision. With the ability to rapidly and accurately identify ablation targets and to confirm both ablation success and procedural completion, we believe our AcQMap System addresses the primary unmet need in electrophysiology procedures today.

We were incorporated in Delaware on March 25, 2011 as Acutus Medical, Inc. Our principal executive offices and manufacturing facilities are located at 2210 Faraday Ave., Suite 100, Carlsbad, CA 92008, and our telephone number is (442) 232-6080. Our website address is www.acutusmedical.com. The information on, or that may be accessed through, our website is not a part of this prospectus and the inclusion of our website address in this report is an inactive textual reference only.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before you invest, you should carefully consider the risks and uncertainties described under "Part I. Item 1A-Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 30, 2022, which is incorporated by reference in this prospectus, together with all of the other information contained in this prospectus and the documents incorporated by reference herein. If any of these risks actually occur, our business, operating results and financial

condition could be materially and adversely impacted, the market price of our common stock could decline and you could lose all or part of your investment. The risks and uncertainties described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations and financial results and the value of our common stock.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and certain information incorporated herein by reference contain forward-looking statements within the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. All statements included or incorporated by reference in this prospectus, other than statements that are purely historical, are forward-looking statements. Words such as "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," "will," "should," "would," "could," "may" and similar expressions also identify forward-looking statements. The forward-looking statements include, without limitation, statements regarding our future operations, financial condition and prospects, operating results, revenues and earnings, liquidity, our estimated income tax rate, unrecognized tax positions, amortization expenses, impact of recent accounting pronouncements, our cost management program, our acquisition strategy and our growth plans, expectations regarding our recent acquisitions and dispositions, including with respect to the sale of our left-heart access portfolio products pursuant to an asset purchase agreement dated April 26, 2022, and the reasonableness of the carrying value related to specific financial assets and liabilities.

Our expectations, beliefs, objectives, intentions and strategies regarding future results are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from results contemplated by our forward-looking statements.

We assume no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of the filing of this prospectus.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of common stock covered by this prospectus will be used for general corporate purposes, including working capital, continued development of our products, including research and development and clinical trials, potential acquisitions, and other business opportunities.

DESCRIPTION OF CAPITAL STOCK

The following summary describes our capital stock and the material provisions of our amended and restated certificate of incorporation, our Certificate of Designation of Preferences, Rights and Limitations of our Series A Common Equivalent Preferred Stock, par value \$0.001 per share (the "Series A Certificate of Designation"), our amended and restated bylaws, the amended and restated investors rights agreement to which we and certain of our stockholders are parties, and the Delaware General Corporation Law (the "DGCL"). This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation, our Series A Certificate of Designation, our amended and restated bylaws and the other documents described in this section, copies of which have been filed with the SEC and are referenced in the exhibits to our registration statement, of which this prospectus forms a part.

General

Our authorized capital stock consists of 260,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$0.001 per share, of which 6,665.8410 are outstanding as of September 30, 2022 and have been designated as Series A Common Equivalent Preferred Stock, and the remainder of which are undesignated. As of September 30, 2022, an aggregate of 28,373,788 shares of our common stock were outstanding.

Common Stock

Voting Rights

Each holder of our 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. Accordingly, holders of a majority of the voting shares are able to elect all of the directors.

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 of directors out of legally available funds. We do not have any plans to pay dividends to our stockholders.

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 and 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, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences 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 our preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

Our board of directors 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, rights and terms of redemption, liquidation preferences, sinking fund provisions and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action.

Series A Common Equivalent Preferred Stock

On August 23, 2021, in connection with the issuance of 6,665.8410 shares of our Series A Common Equivalent Preferred Stock, par value \$0.001 per share, in exchange for 6,665,841 shares of our common stock, we filed the Series A Certificate of Designation with the Secretary of State of the State of Delaware.

The Series A Common Equivalent Preferred Stock ranks senior to our common stock with respect to rights on the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of our affairs, having a liquidation preference equal to its par value of \$0.001 per share. The Series A Common Equivalent Preferred Stock will participate equally and ratably on an as-converted basis with the holders of our common stock in all cash dividends paid on our common stock. The Series A Common Equivalent Preferred Stock is non-voting.

A holder of Series A Common Equivalent Preferred Stock may convert each share of Series A Common Equivalent Preferred Stock into 1,000 shares of our common stock (subject to certain anti-dilution adjustments) at its election, except to the extent that, following such conversion, the number of shares of our common stock held by such holder, its affiliates and any other persons whose beneficial ownership of our common stock would be aggregated with such holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including shares held by any "group" (as defined in Section 13(d) of the Exchange Act and applicable regulations of the SEC) of which such holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth in the Series A Certificate of Designation, exceeds 4.9% (or, at the election of a holder that is not an affiliate of Deerfield Management, made by delivering at least 61 days advance written notice to the Company of its intention to increase the beneficial ownership cap applicable to such holder, 9.9%) of the total number of shares of our common stock then issued and outstanding.

Options

As of September 30, 2022, we had outstanding options to purchase an aggregate of 3,267,782 shares of our common stock, with a weighted-average exercise price of \$7.68 per share.

Warrants

The following table sets forth information about outstanding warrants to purchase shares of our stock as of September 30, 2022.

	Number of Shares of Stock Underlying	Exercise Price Per	
Warrants Exercisable for Common Stock	Warrants	Share	Expiration Date*
Warrants issued in 2015	3,808	\$5.25	January 30, 2025
Warrants issued with 2018 Term Loan	26,998	\$16.67	July 31, 2028
2018 Warrants	346,689	\$0.10	June 7, 2028
2019 Warrants	419,991	\$16.67	May 20, 2029
2022 Warrants	3.779.018	\$1.11	June 30, 2030

On June 30, 2022, and in connection with entering into an amended and restated credit agreement (the "Amended and Restated Credit Agreement"), we entered into a warrant purchase agreement with Deerfield Partners, L.P. ("Deerfield Partners") and Deerfield Private Design Fund III, L.P. ("DPD III" and, together with Deerfield Partners, the "Deerfield Entities"), pursuant to which we issued to the Deerfield Entities warrants to purchase an aggregate of 3,779,018 shares of our common stock in a private placement at an exercise price of \$1.11 per share for a period of eight years following the issuance thereof, on and subject to the terms and conditions set forth in the warrants evidencing such rights (the "2022 Warrants"). The 2022 Warrants are exercisable on a cash or cashless (net exercise) basis, and are subject to a 4.9% beneficial ownership limitation (as described below), as well as certain other customary anti-dilution adjustments upon the occurrence of certain events such as stock splits, subdivisions, reclassifications or combinations of our common stock. Upon the consummation of a "Major Transaction" (as defined in the 2022 Warrants), holders of the 2022 Warrants may elect to (i) have their 2022 Warrants redeemed by us for an amount equal to the Black-Scholes value of such 2022 Warrant, in cash or, if applicable, in the form of the consideration paid to our stockholders in a Major Transaction (i.e., securities or other property of the buyer), or (ii) have such 2022 Warrants be assumed by the successor to the Company in a Major Transaction, if applicable. Holders of the 2022 Warrants are also entitled to participate in any dividends or distributions to holders of our common stock at the time such dividends or distributions are paid to such stockholders.

The exercise of the 2018 Warrants, 2019 Warrants and 2022 Warrants described in the table above by the holders thereof is limited to the extent that, following such exercise, the number of shares of our common stock held by such holder, its affiliates and any other persons whose beneficial ownership of our common stock would be aggregated with such holder's for purposes of Section 13(d) of the Exchange Act, including shares held by any "group" (as defined in Section 13(d) of the Exchange Act and applicable regulations of the SEC) of which such holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth in the warrants, exceeds 4.9% (or, at the election of a holder that is not an affiliate of Deerfield Management Company, L.P., made by delivering at least 61 days advance written notice to us of its intention to increase the beneficial ownership cap applicable to such holder, 9.9%) of the total number of shares of our common stock then issued and outstanding.

Restricted Stock Units

As of September 30, 2022, we had 1,761,181 outstanding restricted stock units, which were subject to performance and time-based vesting conditions.

Registration Rights

Certain holders of shares of common stock or their transferees have the right to require us to register the offer and sale of their shares, or to include their shares in any registration statement we file, in each case as described below.

Registration Rights Agreement with Deerfield Entities

On June 30, 2022, and in connection with the issuance of the 2022 Warrants, we entered into a registration rights agreement (the "Registration Rights Agreement") with the Deerfield Entities, pursuant to which, among other things, we were required to file with the SEC a registration statement to register the resale of shares of our common stock held by the Deerfield Entities, as well as any shares of our common stock issuable upon exercise of warrants held by the Deerfield Entities, and to use commercially reasonable efforts to obtain effectiveness of such registration statement as soon as practicable, subject to extension under the terms of the Registration Rights Agreement. In addition, for a period of five years following the execution of the Registration Rights Agreement, or until all registrable securities are registered or no longer subject to restrictions on transfer (whichever is earlier), the Deerfield Entities hold certain "piggy-back" registration rights with respect to registration statements filed during such period.

The Registration Rights Agreement contains certain liquidated damages provisions with respect to delays in registering securities as required by the Registration Rights Agreement. We will generally pay all reasonable expenses incidental to our obligations and performance under the Registration Rights Agreement, other than underwriting discounts and commissions and such other charges. The registration rights granted in the Registration Rights Agreement are subject to certain customary conditions and limitations, as well as customary indemnification and contribution provisions.

All registration rights have been complied with or waived in respect of the registration statement of which this prospectus forms a part.

Investors' Rights Agreement

Pursuant to the Investors' Rights Agreement, dated June 12, 2019, by and among us and the investors named therein, certain of our investors have certain demand, Form S-3 and "piggy-back" registration rights with respect to registration statements, subject to specified conditions and limitations. We are required to pay all expenses relating to any demand registrations, Form S-3 registrations and "piggy-back" registrations, subject to specified exceptions. The registration rights terminate upon the earliest of: (i) the date that is three years after the completion of our initial public offering; (ii) immediately prior to the closing of certain liquidation events; and (iii) as to a given holder of registration rights, the date after the completion of our initial public offering when such holder of registration rights

can sell all of such holder's registrable securities during any ninety-day period pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended (the "Securities Act"). All registration rights have been complied with or waived in respect of the registration statement of which this prospectus forms a part.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Amended and Restated Bylaws and Delaware Law

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

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

Preferred Stock

Our amended and restated certificate of incorporation contains provisions that permit our board of directors to issue, without any further vote or action by the stockholders, shares of preferred stock in one or more series and, with respect to each such series, to fix the number of shares constituting the series and the designation of the series, the voting rights (if any) of the shares of the series and the powers, preferences or relative, participation, optional and other special rights, if any, and any qualifications, limitations or restrictions, of the shares of such series.

Classified Board

Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes, designated Class I, Class II and Class III. Each class will be an equal number of directors, as nearly as possible, consisting of one third of the total number of directors constituting the entire board of directors. The term of initial Class I directors terminated on the date of our 2021 annual meeting, the term of initial Class II directors terminated on the date of our 2022 annual meeting, and the term of the initial Class III directors shall terminate on the date of our 2023 annual meeting. At each annual meeting of stockholders, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term.

Removal of Directors

Our amended and restated certificate of incorporation provides that stockholders may only remove a director for cause by a vote of no less than a majority of the total voting power of all outstanding securities generally entitled to vote in the election of directors, voting together as a single class.

Director Vacancies

Our amended and restated certificate of incorporation authorizes only our board of directors to fill vacant directorships.

No Cumulative Voting

Our amended and restated certificate of incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Special Meetings of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provides that, except as otherwise required by law, special meetings of the stockholders may be called only by our board of directors.

Advance Notice Procedures for Director Nominations

Our bylaws provide that stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders must provide timely notice thereof in writing. To be timely, a stockholder's notice generally will have to be delivered to and received at our principal executive offices before notice of the meeting is issued by the secretary of the Company, with such notice being served not less than 90 nor more than 120 days before the meeting. Although the amended and restated bylaws will not give the board of directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the amended and restated bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the Company.

Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws provide that any action to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by written consent.

Amending our Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation may be amended or altered in any manner provided by the DGCL. Our amended and restated bylaws may be adopted, amended, altered or repealed by stockholders only upon approval of at least majority of the voting power of all the then outstanding shares of common stock, except for any amendment of the above provisions, which would require the approval of a two-thirds majority of our then outstanding common stock. Additionally, our amended and restated certificate of incorporation provides that our bylaws may be amended, altered or repealed by the board of directors.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuances without stockholder approval, except as required by the listing standards of Nasdaq, and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of the Company by means of a proxy contest, tender offer, merger or otherwise.

Exclusive Jurisdiction

Our amended and restated bylaws provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim arising pursuant to the DGCL, any action regarding our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated bylaws provide further that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. Although our amended and restated bylaws contain the choice of forum provisions described above, it is possible that a court could rule that such provisions are inapplicable for a particular claim or action or that such provisions are unenforceable. For example, under the Securities Act, federal courts have concurrent jurisdiction over all suits brought to enforce any duty or liability created by the Securities Act, and investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. In addition, this exclusive forum provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act, or any other claim for which the U.S. federal courts have exclusive jurisdiction.

Business Combinations with Interested Stockholders

We are governed by Section 203 of the DGCL. Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an "interested stockholder" (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless: (i) prior to such time the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder becoming an interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (1) by persons who are directors and also officers of such corporation and (2) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) at or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we must indemnify our directors and officers to the fullest extent authorized by the DGCL. We are expressly authorized to, and do, carry directors' and officers' insurance providing coverage for our directors, officers and certain employees for some liabilities. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and executive directors.

The limitation on liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Exchange Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol "AFIB."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, Massachusetts 02021.

PLAN OF DISTRIBUTION

We may sell the securities under this prospectus in one or more of the following ways from time to time:

- · through agents;
- · to or through underwriters;
- · through dealers;
- · directly to purchasers; or
- · through a combination of these methods of sale.

The securities that we distribute by any of these methods may be sold, in one or more transactions, at:

- a fixed price or prices, which may be changed;
- · market prices prevailing at the time of sale;
- · prices related to prevailing market prices;
- · negotiated prices; or
- · a combination of these pricing methods.

Offers to purchase offered securities may be solicited by agents designated by us from time to time. Any agent involved in the offer or sale of the offered securities in respect of which this prospectus is delivered will be named, and any commissions payable by us will be set forth, in the applicable prospectus supplement. Unless otherwise set forth in the applicable prospectus supplement, any agent will be acting on a reasonable best efforts basis for the period of its appointment. Any agent may be deemed to be an underwriter, as that term is defined in the Securities Act, of the offered securities so offered and sold.

We will set forth in a prospectus supplement the terms of the offering of our securities, including:

- the name or names of any agents, underwriters or dealers;
- the purchase price of our securities being offered and the proceeds we will receive from the sale;
- · any over-allotment options under which underwriters may purchase additional securities from us;
- · any agency fees or underwriting discounts and commissions and other items constituting agents' or underwriters' compensation;
- · the public offering price;
- · any discounts or concessions allowed or reallowed or paid to dealers; and
- · any securities exchanges on which such securities may be listed.

If offered securities are sold to the public by means of an underwritten offering, either through underwriting syndicates represented by managing underwriters or directly by the managing underwriters, we will execute an underwriting agreement with an underwriter or underwriters, and the names of the specific managing underwriter or underwriters, as well as any other underwriters, will be set forth in the applicable prospectus supplement. In addition, the terms of the transaction, including commissions, discounts and any other compensation of the underwriters and dealers, if any, will be set forth in the applicable prospectus supplement, which prospectus supplement will be used by the underwriters to make resales of the offered securities. If underwriters are utilized in the sale of the offered securities, the offered securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- · negotiated transactions;
- · at fixed public offering prices; or
- · at varying prices determined by the underwriters at the time of sale.

In addition, unless otherwise indicated in the prospectus supplement, the underwriting agreement will provide that the obligations of the underwriters are subject to specified conditions precedent and that the underwriters with respect to a sale of offered securities will be obligated to purchase all of the offered securities of a series if any are purchased.

We may grant to the underwriters options to purchase additional offered securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions, as may be set forth in the

applicable prospectus supplement. If we grant any over-allotment option, the terms of the over-allotment option will be set forth in the applicable prospectus supplement.

If a dealer is utilized in the sales of offered securities, we will sell the offered securities to the dealer as principal. The dealer may then resell the offered securities to the public at varying prices to be determined by the dealer at the time of resale. Any dealer may be deemed to be an underwriter of the offered securities so offered and sold. The name of the dealer and the terms of the transaction will be set forth in the applicable prospectus supplement.

We may directly solicit offers to purchase offered securities and sell offered securities directly to institutional investors or others with respect to any resale of the offered securities. The terms of any of these sales will be described in the applicable prospectus supplement.

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

Agents, underwriters, dealers and remarketing firms may be entitled, under agreements entered into with us, to indemnification by us against specified civil liabilities, including liabilities under the Securities Act that may arise from any untrue statement or alleged untrue statement of a material fact or any omission or alleged omission to state a material fact in this prospectus, any supplement or amendment hereto, or in the registration statement of which this prospectus forms a part, or to contribution with respect to payments which the agents, underwriters or dealers may be required to make.

We may authorize underwriters or other persons acting as agents to solicit offers by specified institutions to purchase offered securities pursuant to contracts providing for payments and delivery on a future date, which will be set forth in the applicable prospectus supplement. Institutions with which these contracts may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others. However, in all cases, these institutions must be approved by us. The obligations of any purchaser under any contract will be subject to the condition that the purchase of the offered securities shall not, at the time of delivery, be prohibited under the laws of the jurisdiction to which the purchaser is subject. The underwriters and other agents will not have any responsibility in respect of the validity or performance of these contracts

Underwriters, dealers, agents and remarketing firms may be customers of, engage in transactions with, or perform services for, us in the ordinary course of business for which they have received or will continue to receive customary compensation.

Our common stock is traded on The Nasdaq Global Select Market. We may elect to list our common stock on any additional exchange. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the offered securities.

In connection with an offering, an underwriter may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional securities from us, if any, in the offering. If the underwriters have an over-allotment option to purchase additional securities from us, the underwriters may close out any covered short position by either exercising their over-allotment option or purchasing securities in the open market. In determining the source of securities to close out the covered short position, the underwriters may consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the over-allotment option. "Naked" short sales are any sales in excess of such option or where the underwriters do not have an over-allotment option. The underwriters must close out any naked short position by

purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. 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. The impositions of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on The Nasdaq Global Select Market or otherwise and, if commenced, may be discontinued at any time.

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

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

VALIDITY OF SECURITIES

The validity of the securities in respect of which this prospectus is being delivered will be passed on for us by Davis Polk & Wardwell LLP, Menlo Park. California.

EXPERTS

The consolidated financial statements of Acutus Medical, Inc. as of December 31, 2021 and 2020, and for each of the years in the two-year period ended December 31, 2021, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said 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, including Acutus Medical, Inc., who file electronically with the SEC. The address of that website is http://www.sec.gov.

Our SEC filings are also available on our website: www.acutusmedical.com. Except for documents filed with the SEC and incorporated by reference into this prospectus, no information contained in, or that can be accessed through, our website is to be considered part of this prospectus.

INFORMATION INCORPORATED BY REFERENCE

The rules of the SEC allow us to incorporate by reference into this prospectus the information we file with the SEC. This means that we are disclosing important information to you by referring to other documents. The

information incorporated by reference is considered to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. We incorporate by reference the documents listed below (other than any portions thereof, which under the Exchange Act, and applicable SEC rules, are not deemed "filed" under the Exchange Act):

- our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 30, 2022;
- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 28, 2022, to the extent incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2021;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 12, 2022;
- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the SEC on August 11, 2022;
- our Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, filed with the SEC on November 10, 2022;
- our Current Reports on Form 8-K and 8-K/A filed with the SEC on <u>December 5, 2022</u>, <u>November 4, 2022</u>, <u>November 3, 2022</u>, <u>August 22</u>, <u>2022</u>, <u>August 11, 2022</u>, <u>July 29, 2022</u>, <u>July 26, 2022</u>, <u>July 21, 2022</u>, <u>July 1, 2022</u>, <u>June 28, 2022</u>, <u>June 24, 2022</u>, <u>June 21, 2022</u>, <u>May 12, 2022</u> and <u>April 27, 2022</u>, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock which is registered under Section 12 of the Exchange Act, in our Registration Statement on Form 8-A, filed with the SEC on August 5, 2020, including any amendments or reports filed for purposes of updating this description.

We also incorporate by reference into this prospectus all future reports and other documents (other than the Current Reports on Form 8-K or portions thereof that are "furnished" under Item 2.02 or Item 7.01 of Form 8-K) that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, and (ii) on and after the date of this prospectus but prior to the termination or completion of the offering of shares of common stock under this prospectus.

Any statement contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that is also incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Acutus Medical, Inc., 2210 Faraday Ave., Suite 100, Carlsbad, CA 92008.

You also may access these filings on our website at www.acutusmedical.com. We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus).



\$15,000,000

COMMON STOCK

PROSPECTUS

December 21, 2022