

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

ACUTUS MEDICAL, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

45-1306615

(I.R.S. Employer
Identification Number)

**2210 Faraday Ave., Suite 100
Carlsbad, CA 92008
(442) 232-6080**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

David Roman

Chief Executive Officer and Chief Financial Officer

Acutus Medical, Inc.

**2210 Faraday Ave., Suite 100
Carlsbad, CA 92008
(442) 232-6080**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copy to:

Tom Sohn

**Senior Vice President, General Counsel &
Secretary**

**Acutus Medical, Inc.
2210 Faraday Ave., Suite 100
Carlsbad, CA 92008
(442) 232-6080**

Alan F. Denenberg

**Davis Polk & Wardwell LLP
1600 El Camino Real
Menlo Park, CA 94025
(650) 752-2000**

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Emerging growth company

Accelerated filer

Smaller reporting company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission acting pursuant to said Section 8(a) may determine.

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is declared effective. This prospectus is not an offer to sell these securities and the selling stockholders are not soliciting an offer to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 11, 2022

PROSPECTUS



Acutus Medical, Inc.

16,537,961 Shares of Common Stock

This prospectus covers the offer and resale by the selling stockholders identified herein, from time to time in one or more offerings, of up to 16,537,961 shares of our common stock, par value \$0.001 per share, which consist of (i) an aggregate of 5,296,772 shares of our common stock acquired by the selling stockholders from us in private placements or in transactions registered with the Securities and Exchange Commission (the "SEC"), in privately negotiated secondary transactions or in open market transactions; (ii) an aggregate of 346,689 shares of our common stock underlying warrants that we issued to the selling stockholders in a private placement at an exercise price of \$0.10 per share under the terms of the warrant to purchase shares of common stock dated as of June 7, 2018 (the "2018 Warrants"); (iii) an aggregate of 419,991 shares of our common stock underlying warrants that we issued to the selling stockholders in a private placement at an exercise price of \$16.67 per share under the terms of the warrant dated as of May 20, 2019 (the "2019 Warrants"); (iv) an aggregate of 6,665,841 shares of our common stock issuable upon conversion of our Series A Common Stock Equivalent Convertible Preferred Stock, par value \$0.001 (the "Series A Common Equivalent Preferred Stock"), that we issued to the selling stockholders pursuant to certain exchange agreements entered into on August 23, 2021 (the "Exchange Agreements"); (v) an aggregate of 3,779,018 shares of our common stock underlying warrants that we issued to certain of the selling stockholders in a private placement at an exercise price of \$1.11 per share pursuant to a warrant purchase agreement dated June 30, 2022 (the "2022 Warrants" and, together with the 2018 Warrants and the 2019 Warrants, the "Warrants"); (vi) an aggregate of 18,606 shares of our common stock and shares underlying options held by Andrew ElBardissi, a member of our board of directors and a partner in Deerfield Management Company, L.P. ("Deerfield Management"), for the benefit and at the direction of Deerfield Management; and (vii) an aggregate of 11,044 shares of our common stock and shares underlying options held by David Bonita, a member of our board of directors and a member of OrbiMed Advisors LLC ("OrbiMed Advisors"), for the benefit and at the direction of OrbiMed Advisors and its affiliates.

We are registering the offer and resale of shares of common stock held by the selling stockholders as required by (i) the Registration Rights Agreement, dated June 30, 2022, by and among us and Deerfield Partners, L.P. ("Deerfield Partners") and Deerfield Private Design Fund III, L.P. ("DPD III" and, together with Deerfield Partners, the "Deerfield Entities") and (ii) the Amended and Restated Investors' Rights Agreement, dated June 12, 2019, by and among us and the investors listed therein (including the selling stockholders or their affiliates). The selling stockholders or their permitted transferees or other successors-in-interest may, but are not required to, sell the shares of our common stock offered by this prospectus from time to time in a number of different ways and at varying prices as determined by the prevailing market price for shares or in negotiated transactions. See "Plan of Distribution" on page 13 for a description of how the selling stockholders may dispose of the shares covered by this prospectus. We do not know when or in what amount the selling stockholders may offer the shares for sale.

We are not selling any shares of our common stock under this prospectus and will not receive any proceeds from the sale of shares of common stock by the selling stockholders. We will receive proceeds from any cash exercise of the Warrants which, if exercised for cash with respect to all of the 4,545,698 shares of common stock underlying such Warrants at the relevant exercise prices per share, would result in gross proceeds to us of approximately \$11.2 million. We have agreed to pay certain expenses related to the registration of the offer and sale of the shares of common stock pursuant to the registration statement of which this prospectus forms a part. The selling stockholders will bear all commissions and discounts, if any, attributable to the sale of the shares.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "AFIB." On August 10, 2022, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$1.61 per share.

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.

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.

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 4 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 _____, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the SEC, under the Securities Act of 1933, as amended (“Securities Act”). Under this registration process, the selling stockholders named in this prospectus may offer or sell shares of our common stock in one or more offerings from time to time. Each time the selling stockholders named in this prospectus (or in any supplement to this prospectus) sells shares of our common stock under the registration statement of which this prospectus is a part, such selling stockholders must provide a copy of this prospectus and any applicable prospectus supplement, to a potential purchaser, as required by law.

In certain circumstances we may provide a prospectus supplement that may add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “*Where You Can Find More Information*” and “*Information Incorporated by Reference*” beginning on page 16 of this prospectus.

Neither we, nor the selling stockholders, have authorized any other person to provide you with information other than the information contained or incorporated by reference in this prospectus and any accompanying prospectus supplement. If anyone provides you with different or inconsistent information, you should not rely on it. Neither we nor any of the selling stockholders will make an offer to sell our common stock in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and any prospectus supplement is accurate as of the date on its respective cover, 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.

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 4 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 4 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 ™ 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.

PROSPECTUS SUMMARY

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.

THE OFFERING

Issuer	Acutus Medical, Inc.
Common Stock Offered by Selling Stockholders	Up to 16,537,961 shares, consisting of: (i) an aggregate of 5,296,772 shares of our common stock acquired by the selling stockholders from us in private placements or in transactions registered with the SEC, in privately negotiated secondary transactions or in open market transactions; (ii) an aggregate of 346,689 shares of our common stock underlying the 2018 Warrants; (iii) an aggregate of 419,991 shares of our common stock underlying the 2019 Warrants; (iv) an aggregate of 6,665,841 shares of our common stock issuable upon conversion of our Series A Common Equivalent Preferred Stock; (v) an aggregate of 3,779,018 shares of our common stock underlying the 2022 Warrants; (vi) an aggregate of 18,606 shares of our common stock and shares underlying options held by Andrew ElBardissi, a member of our board of directors and a partner in Deerfield Management; and (vii) an aggregate of 11,044 shares of our common stock and shares underlying options held by David Bonita, a member of our board of directors and a member of OrbiMed Advisors.
Use of Proceeds	We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders. We will receive proceeds from any cash exercise of Warrants to purchase the shares included in the shares that are being offered by the selling stockholders hereunder. We intend to use the net proceeds, if any, from the cash exercise of the Warrants for general corporate purposes.
Risk Factors	Investing in our common stock involves a high degree of risk. You should read the “Risk Factors” section of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Nasdaq Global Select Market Symbol	“AFIB”

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 registration statement, 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.

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.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders.

We will receive proceeds from any cash exercise of the Warrants which, if exercised for cash with respect to all of the 4,545,698 shares of common stock underlying such Warrants at the applicable exercise prices thereof, would result in gross proceeds to us of approximately \$11.2 million. There can be no assurance that any of the Warrants will be exercised by the selling stockholders or that they will exercise the Warrants for cash instead of using the cashless exercise feature. We intend to use the net proceeds, if any, from any cash exercise of the Warrants for general corporate purposes.

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 the 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 June 30, 2022 and have been designated as Series A Common Equivalent Preferred Stock, and the remainder of which are undesignated. As of June 30, 2022, an aggregate of 28,349,200 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. Immediately after completion of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

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 June 30, 2022, we had outstanding options to purchase an aggregate of 3,925,448 shares of our common stock, with a weighted-average exercise price of \$11.64 per share.

Warrants

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

Warrants Exercisable for Common Stock	Number of Shares of Stock Underlying Warrants	Exercise Price Per 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 held by the Selling Stockholders	346,689	\$0.10	June 7, 2028
2019 Warrants held by the Selling Stockholders	419,991	\$16.67	May 20, 2029
2022 Warrants held by the Selling Stockholders	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 the Deerfield Entities, pursuant to which we issued to the Deerfield Entities the 2022 Warrants, 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 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 by the holder 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, 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 June 30, 2022, we had 1,767,655 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

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 are required to file with the SEC the registration statement of which this prospectus forms a part 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 the 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.

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, including the selling stockholders, 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. 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; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the 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.

SELLING STOCKHOLDERS

This prospectus covers the offering for resale from time to time, in one or more offerings, of up to 16,537,961 shares of our common stock (including an aggregate of up to 4,545,698 shares of common stock issuable upon exercise of outstanding Warrants, an aggregate of up to 6,665,841 shares of common stock issuable upon conversion of our Series A Common Equivalent Preferred Stock and an aggregate of up to 29,650 shares of common stock issuable upon exercise of options) by the selling stockholders. The term “selling stockholders” includes the stockholders listed below and their transferees, pledges, donees or other successors-in-interest who may acquire shares from a selling stockholder as a gift, pledge, partnership distribution or other non-sale related transfer after the date of this prospectus. Information concerning the selling stockholders may change after the date of this prospectus and changed information will be presented in a supplement to this prospectus if and when required.

The table below sets forth (i) the name of each selling stockholder, (ii) the number of shares of common stock beneficially owned by each selling stockholder as of June 30, 2022, (iii) the number of shares of common stock offered by each selling stockholder hereunder, (iv) the number of shares of common stock beneficially owned by each selling stockholder following the completion of this offering (assuming each selling stockholder sells all of the shares of our common stock covered by this prospectus), and (v) the percentage of common stock beneficially owned by each selling stockholder following the completion of this offering (assuming each selling stockholder sells all of the shares of our common stock covered by this prospectus), based on 28,349,200 shares of our common stock outstanding as of June 30, 2022.

The selling stockholders are not making any representation that any shares of common stock covered by this prospectus will be offered for sale. Because each selling stockholder may dispose of all, none or some portion of the shares of common stock covered by this prospectus, no estimate can be given as to the number of shares that will be beneficially owned by a selling stockholder upon termination of this offering. In addition, the selling stockholders may have sold, transferred or otherwise disposed of their shares of common stock in transactions exempt from the registration requirements of the Securities Act after the date on which the information in the table is presented. For purposes of the table below, however, we have assumed that after termination of this offering, none of the shares of common stock registered for resale under this prospectus will be beneficially owned by the selling stockholders, and we have further assumed that the selling stockholders will not acquire beneficial ownership of any additional shares of common stock during this offering.

To our knowledge, except as indicated in the footnotes to this table, each selling stockholder named in the table has sole voting and investment power with respect to all shares of our common stock shown in the table to be beneficially owned by such stockholder. Except as described below, none of the selling stockholders has had any position, office or other material relationship with us or any of our predecessors or affiliates within the past three years. In addition, based on information provided to us, none of the selling stockholders that are affiliates of broker-dealers, if any, purchased the shares of our common stock outside the ordinary course of business or, at the time of their acquisition of such shares, had any agreements, understandings or arrangements with any other persons, directly or indirectly, to dispose of the shares. Information concerning the selling stockholders may change from time to time, and any changed information will be set forth in supplements to this prospectus to the extent required.

Name of Selling Stockholder(1)	Shares of Common Stock Beneficially Owned Before this Offering⁽²⁾	Percentage of Shares of Common Stock Beneficially Owned Before this Offering	Shares of Common Stock Offered by this Prospectus⁽²⁾	Shares of Common Stock Beneficially Owned After this Offering	Percentage of Shares of Common Stock Beneficially Owned After this Offering
Entities affiliated with Deerfield Management Company, L.P. ⁽³⁾	9,644,965	9.4%	9,644,965	—	—%
Entities affiliated with OrbiMed Advisors ⁽⁴⁾	6,892,996	9.4%	6,892,996	—	—%
Total	16,537,961		16,537,961		

(1) This table and information in the notes below are based upon information supplied to us by the selling stockholders.

(2) Includes shares issuable to the selling stockholders upon exercise of the outstanding Warrants and conversion of our Series A Common Equivalent Preferred Stock. While the total number of shares of our common stock issuable upon exercise of the Warrants and conversion of the Series A Common Equivalent Preferred Stock is being registered under the registration statement of which this prospectus forms a part, pursuant to the terms of the Warrants and the Series A Certificate of Designation, the selling stockholder is not permitted to exercise such Warrants or convert such Series A Common Equivalent Preferred Stock to the extent that such exercise would result in the selling stockholder and its affiliates and any other persons or entities whose beneficial ownership of our common stock would be aggregated with such selling stockholder for purposes of Section 13(d) of the Exchange Act, beneficially owning more than 4.9% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of such Warrants or conversion of Series A Common Equivalent Preferred Stock. For purposes of the 4.9% beneficial ownership exercise restriction, beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and the rules and regulation promulgated thereunder.

- (3) Consists of: (i)(A) 1,026,243 shares of common stock, (B) 948,395 shares of common stock issuable upon conversion of 948,395 shares of Series A Common Equivalent Preferred Stock and (C) 1,920,625 shares of common stock issuable upon exercise of Warrants, in each case, held by Deerfield Partners; (ii)(A) 1,622,143 shares of common stock, (B) 1,816,446 shares of common stock issuable upon conversion of 1,816,446 shares of Series A Common Equivalent Preferred Stock and (C) 2,292,507 shares of common stock issuable upon exercise of Warrants, in each case, held by DPD III; and (iii) 18,606 shares of common stock and shares underlying stock options held by Andrew ElBardissi which are exercisable or will become exercisable or otherwise vest within 60 days, which shares and options are held for the benefit and at the direction of Deerfield Management. The terms of the Series A Common Equivalent Preferred Stock and provisions of the Warrants restrict the conversion of such shares or the exercise of such Warrants, as applicable, to the extent that, upon such conversion or exercise, the number of shares of common stock then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) “group” would exceed 4.9% of the total number of shares of common stock then outstanding (the “Ownership Cap”). Accordingly, notwithstanding the number of shares reported, the selling stockholder disclaims beneficial ownership of the shares of common stock issuable upon conversion of the Series A Common Equivalent Preferred Stock and the exercise of such Warrants to the extent that upon such conversion or exercise the number of shares beneficially owned by all reporting persons hereunder, in the aggregate, would exceed the Ownership Cap. Deerfield Mgmt, L.P. is the general partner of Deerfield Partners. Deerfield Management is the investment manager of Deerfield Partners. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt, L.P. and Deerfield Management. Each of Deerfield Mgmt, L.P., Deerfield Management and James E. Flynn may be deemed to beneficially own the securities held by Deerfield Partners. Deerfield Mgmt III, L.P. is the general partner of DPD III. Deerfield Management is the investment manager of DPD III. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt III, L.P. and Deerfield Management. Each of Deerfield Mgmt III, L.P., Deerfield Management and James E. Flynn may be deemed to beneficially own the securities held by DPD III. The address of Deerfield Partners, DPD III and Deerfield Management is c/o Deerfield Management Company, L.P., 345 Park Avenue South, 12th Floor, New York, NY 10010.
- (4) Consists of: (i)(A) 2,076,139 shares of outstanding common stock, (B) 60,339 shares underlying Warrants and (C) 2,795,886 shares issuable upon conversion of 2,795,886 shares of our Series A Common Equivalent Preferred Stock, in each case, held by OrbiMed Private Investments IV, LP (“OPI IV”); (ii)(A) 572,247 shares of outstanding common stock, (B) 272,227 shares underlying Warrants; and (C) 1,105,114 shares issuable upon conversion of 1,105,114 shares of our Series A Common Equivalent Preferred Stock, in each case, held by OrbiMed Royalty Opportunities II, LP (“ORO II”); and (iii) 11,044 shares of common stock and shares underlying stock options held by David Bonita which are exercisable or will become exercisable or otherwise vest within 60 days, which shares and options are held for the benefit and at the direction of OPI IV. OrbiMed Capital GP IV LLC (“GP IV”) is the general partner of OPI IV. OrbiMed Advisors is the managing member of GP IV. By virtue of such relationships, GP IV and OrbiMed Advisors may be deemed to have voting and investment power with respect to the shares held by OPI IV and as a result may be deemed to have beneficial ownership of such shares. OrbiMed ROF II LLC (“ROF II”) is the general partner of ORO II and OrbiMed Advisors is the managing member of ROF II. By virtue of such relationships, ROF II and OrbiMed Advisors may be deemed to have voting and investment power with respect to the shares held by ORO II and as a result may be deemed to have beneficial ownership of such shares. David Bonita, a member of OrbiMed Advisors, is a member of the Company’s board of directors. By virtue of such relationship, OrbiMed Advisors may be deemed to beneficially own the securities held by David Bonita. OrbiMed Advisors exercises investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild. Each of GP IV, ROF II, OrbiMed Advisors, Carl L. Gordon, Sven H. Borho, W. Carter Neild and David Bonita disclaims beneficial ownership of the shares held by OPI IV and ORO II, except to the extent of its or his pecuniary interest therein if any. The address for each of OPI IV and ORO II is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Material Relationships Between the Selling Stockholders and Acutus

Andrew ElBardissi, a member of our board of directors, is a partner in Deerfield Management, the investment manager of Deerfield Partners and DPD III, the lenders under the Amended and Restated Credit Agreement and principal stockholders of the Company.

David Bonita, a member of our board of directors, serves as a member of OrbiMed Advisors, an affiliate of ORO II, an initial lender under the credit agreement dated May 20, 2019 (the amounts owing thereunder being repaid in connection with the execution of the Amended and Restated Credit Agreement) and a principal stockholder of the Company.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from the selling stockholders as a gift, pledge, partnership or other distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- 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;
- through agents;
- through one or more underwriters in a public offering on a firm commitment or best-efforts basis;
- through the settlement of short sales (including short sales “against the box”), in each case subject to compliance with the Securities Act and other applicable laws;
- 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 shares at a stipulated price per share;
- in other ways not involving market makers or established trading markets;
- by pledge to secure debts and other obligations;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of these provisions.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if the selling stockholders default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424 or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successor-in-interest as a selling stockholder under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale or other disposition of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale or other disposition of the common stock covered by this prospectus will be the price at which the shares of common stock are sold or otherwise disposed of, less discounts or commissions, if any. The selling stockholders reserve the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. However, we will receive proceeds from the exercise of the Warrants if they are exercised for cash by a holder thereof.

The selling stockholders and any underwriters, broker-dealers or agents that are involved in selling the common stock or interests therein may be deemed to be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The maximum amount of any compensation to be received by any Financial Industry Regulatory Authority member will not be greater than an amount that is considered fair and reasonable for the sale of any securities being registered. The selling stockholders have informed us that they do not as of the date hereof have any agreement or understanding, directly or indirectly, with any person to distribute the common stock. If a selling stockholder is deemed to be an “underwriter” within the meaning of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the name of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

In order to comply with the securities laws of some states, if applicable, the shares of our common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states shares of our common stock may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including certain liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed to bear all reasonable expenses incurred in connection with the registration of these shares, including the fees and expenses of counsel to the selling stockholders up to \$25,000 per registration. The selling stockholders will be required to bear the expenses of any underwriting discounts, fees, and selling commissions incurred for the sale of shares of our common stock.

We have agreed to use commercially reasonable efforts to keep the registration statement of which this prospectus is a part continuously effective, supplemented and amended as required by the Securities Act, in order to permit this prospectus to be usable by the selling stockholders for a period from the date the registration statement becomes effective to, and including, the date upon which all registrable securities have been sold and no longer subject to restrictions on transfer or the securities no longer constitute registrable securities (whichever is earlier).

Once sold under the registration statement of which this prospectus is a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

Davis Polk & Wardwell LLP, Menlo Park, California will pass upon the validity of the shares of common stock offered by this prospectus.

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 Current Reports on Form 8-K and 8-K/A filed with the SEC on [August 11, 2022](#), [July 29, 2022](#), [July 26, 2022](#), [July 21, 2022](#), [July 1, 2022](#), [June 28, 2022](#), [June 24, 2022](#), [June 21, 2022](#), [May 12, 2022](#) and [April 27, 2022](#), 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).

Part II
Information Not Required in Prospectus

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the fees and expenses payable by us in connection with the offering of the securities being registered. All amounts are estimated except the SEC registration fee.

SEC registration fee	\$	2,437.58	
Accounting fees and expenses			*
Legal fees and expenses			*
Miscellaneous			*
Total	\$		*

* These fees and expenses depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time and will be reflected in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers

Section 145 of the DGCL provides, in effect, that any person made a party to any action by reason of the fact that he is or was a director, officer, employee or agent of ours may, and in certain cases must, be indemnified by us against, in the case of a non-derivative action, judgments, fines, amounts paid in settlement, and reasonable expenses (including attorneys' fees) incurred by him as a result of such action, and in the case of a derivative action, against expenses (including attorneys' fees), if in either type of action he acted in good faith and in a manner he reasonably believed to be in or not opposed to our best interests. This indemnification does not apply: (i) in a derivative action, to matters as to which it is adjudged that the director, officer, employee or agent is liable to us, unless upon court order it is determined that, despite such adjudication of liability, but in view of all the circumstances of the case, he is fairly and reasonably entitled to indemnity for expenses; and (ii) in a non-derivative action, to any criminal proceeding in which such person had no reasonable cause to believe his conduct was unlawful.

Article VIII of our amended and restated certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

We have entered into indemnification agreements with certain of our directors, executive officers and others, in addition to indemnification provided for in our bylaws. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim, including claims relating to, among other things, public securities matters, asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

See also the undertakings set out in response to Item 17 herein.

Item 16. Exhibits

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
2.1	Asset Purchase Agreement dated April 26, 2022, by and among Medtronic, Inc. and Acutus Medical, Inc.	8-K	001-39430	2.1	April 27, 2022
3.1	Amended and Restated Certificate of Incorporation	8-K	001-39430	3.1	August 10, 2020
3.2	Amended and Restated Bylaws	8-K	001-39430	3.2	August 10, 2020
3.3	Certificate of Designation of Preferences, Rights and Limitations of the Series A Common Equivalent Preferred Stock, par value \$0.001 per share, of the Company	8-K	001-39430	3.1	August 23, 2021

Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
4.1	Specimen Common Stock Certificate	S-1/A	333-239873	4.2	July 30, 2020
4.2	Amended and Restated Investors' Rights Agreement	S-1	333-239873	4.1	July 15, 2020
4.3	Form of warrant to purchase common stock dated January 30, 2015, issued by the Registrant to various parties, together with a schedule of material differences	S-1	333-239873	4.3	July 15, 2020
4.4	Form of warrant to purchase common stock dated June 7, 2018, issued by the Registrant to various parties, together with a schedule of material differences	S-1	333-239873	4.4	July 15, 2020
4.5	Form of warrant to purchase common stock dated July 31, 2018, issued by the Registrant to various parties, together with a schedule of material differences	S-1	333-239873	4.5	July 15, 2020
4.6	Form of warrant to purchase common stock dated May 20, 2019, issued by the Registrant to various parties, together with a schedule of material differences	S-1	333-239873	4.6	July 15, 2020
4.7	Form of warrant for the issuance of warrants dated June 30, 2022	8-K	001-39430	10.3	July 1, 2022
4.8	Warrant Purchase Agreement dated June 30, 2022, by and among Acutus Medical, Inc. and the purchasers named therein	8-K	001-39430	10.2	July 1, 2022
4.9	Registration Rights Agreement dated June 30, 2022, by and among Acutus Medical, Inc., Deerfield Partners, L.P. and Deerfield Private Design Fund III, L.P.	8-K	001-39430	10.4	July 1, 2022
5.1	Opinion of Davis Polk & Wardwell LLP				
10.1	Exchange Agreement, dated as of August 23, 2021, by and among the Company, Deerfield Private Design Fund III, L.P. and Deerfield Partners, L.P.	8-K	001-39430	10.10	August 23, 2021
10.2	Exchange Agreement, dated as of August 23, 2021, by and among the Company, OrbiMed Private Investments IV, LP and OrbiMed Royalty Opportunities II, LP	8-K	001-39430	10.20	August 23, 2021
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm				
23.2	Consent of Davis Polk & Wardwell (contained in Exhibit 5.1)				
24.1	Power of Attorney (included on the signature page hereto)				
107	Filing fee table				

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that clauses (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities

(other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Carlsbad, State of California, on August 11, 2022.

ACUTUS MEDICAL, INC.

By: /s/ David Roman

Name: David Roman

Title: President, Chief Executive Officer, Chief Financial Officer and
Director

POWER OF ATTORNEY

We, the undersigned officers and directors of Acutus Medical, Inc., hereby severally constitute and appoint David H. Roman and Tom Sohn, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David H. Roman</u> David H. Roman	President, Chief Executive Officer, Chief Financial Officer and Director (Principal Executive Officer, Principal Financial and Accounting Officer)	August 11, 2022
<u>/s/ R. Scott Huennekens</u> R. Scott Huennekens	Chairman of the Board	August 11, 2022
<u>/s/ David Bonita, M.D.</u> David Bonita, M.D.	Director	August 11, 2022
<u>/s/ Daniella Cramp</u> Daniella Cramp	Director	August 11, 2022
<u>/s/ Andrew ElBardissi, M.D.</u> Andrew ElBardissi, M.D.	Director	August 11, 2022
<u>/s/ Jim Hinrichs</u> Jim Hinrichs	Director	August 11, 2022
<u>/s/ Shaden Marzouk, M.D.</u> Shaden Marzouk, M.D.	Director	August 11, 2022
<u>/s/ John Sheridan</u> John Sheridan	Director	August 11, 2022
<u>/s/ Niamh Pellegrini</u> Niamh Pellegrini	Director	August 11, 2022



Davis Polk & Wardwell LLP
1600 El Camino Real
Menlo Park, CA 94025
davispolk.com

Opinion of Davis Polk & Wardwell LLP

August 11, 2022

Acutus Medical, Inc.
2210 Faraday Ave., Suite 100
Carlsbad, CA 92008

Ladies and Gentlemen:

Acutus Medical, Inc., a Delaware corporation (the “**Company**”) is filing with the Securities and Exchange Commission (the “**SEC**”) a Registration Statement on Form S-3 (the “**Registration Statement**”) for the purpose of registering under the Securities Act of 1933, as amended (the “**Securities Act**”), (i) 5,296,772 shares (the “**Outstanding Shares**”) of its common stock, par value \$0.001 per share (the “**Common Stock**”); (ii) 346,689 shares of its Common Stock (the “**2018 Warrant Shares**”) issuable upon the exercise of certain warrants to acquire shares of its common stock (the “**2018 Warrants**”); (iii) 419,991 shares of its Common Stock (the “**2019 Warrant Shares**”) issuable upon the exercise of certain warrants to acquire shares of its common stock (the “**2019 Warrants**”); (iv) 6,665,841 shares of its Common Stock (the “**Convertible Shares**”) issuable upon conversion of its Series A Common Stock Equivalent Convertible Preferred Stock, par value \$0.001 (the “**Series A Common Equivalent Preferred Stock**”); (v) 3,779,018 shares of its Common Stock (the “**2022 Warrant Shares**”) issuable upon the exercise of certain warrants to acquire shares of its common stock (the “**2022 Warrants**”); and (vi) 29,650 shares of its Common Stock and shares underlying options (collectively, the “**Director Shares**”) held by certain of its directors.

We, as your counsel, have examined originals or copies of such documents, corporate records, certificates of public officials and other instruments as we have deemed necessary or advisable for the purpose of rendering this opinion.

In rendering the opinion expressed herein, we have, without independent inquiry or investigation, assumed that (i) all documents submitted to us as originals are authentic and complete, (ii) all documents submitted to us as copies conform to authentic, complete originals, (iii) all documents filed as exhibits to the Registration Statement that have not been executed will conform to the forms thereof, (iv) all signatures on all documents that we reviewed are genuine, (v) all natural persons executing documents had and have the legal capacity to do so, (vi) all statements in certificates of public officials and officers of the Company that we reviewed were and are accurate and (vii) all representations made by the Company as to matters of fact in the documents that we reviewed were and are accurate.

Based upon the foregoing, and subject to the additional assumptions and qualifications set forth below, we advise you that, in our opinion, as of the date hereof, (i) the Outstanding Shares have been validly issued, and are fully paid and non-assessable, (ii) the 2018 Warrant Shares, when issued upon the exercise of the underlying 2018 Warrants and upon the Company’s receipt of payment of the exercise price therefore, will be validly issued, fully paid and non-assessable, (iii) the 2019 Warrant Shares, when issued upon the exercise of the underlying 2019 Warrants and upon the Company’s receipt of payment of the exercise price therefore, will be validly issued, fully paid and non-assessable, (iv) the Convertible Shares, when issued upon conversion of the Series A Common Equivalent Preferred Stock, will be validly issued, fully paid and non-assessable, (v) the 2022 Warrant Shares, when issued upon the exercise of the underlying 2022 Warrants and upon the Company’s receipt of payment of the exercise price therefore, will be validly issued, fully paid and non-assessable, and (vi) the Director Shares have been validly issued, and are fully paid and non-assessable, or when issued upon the exercise of the underlying options, will be validly issued, fully paid and non-assessable.

In connection with the opinion expressed above, we have assumed that, at or prior to the time of delivery of any shares of Common Stock, (i) the Company shall remain validly existing as a corporation in good standing under the laws of the State of Delaware and (ii) the Registration Statement shall have been declared effective and such effectiveness shall not have been terminated or rescinded.

We are members of the Bars of the States of New York and California and the foregoing opinion is limited to the laws of the States of New York and California and the General Corporation Law of the State of Delaware.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement referred to above and further consent to the reference to our name under the caption "Legal Matters" in the prospectus, which is a part of the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Davis Polk & Wardwell LLP

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated March 30, 2022, with respect to the consolidated financial statements of Acutus Medical, Inc., incorporated herein by reference and to the reference to our firm under the heading “Experts” in the prospectus.

/s/ KPMG LLP

San Diego, California
August 11, 2022

CALCULATION OF FILING FEE TABLE

Form S-3
(Form Type)
Acutus Medical, Inc.
(Exact Name of Registrant as Specified in its Charter)
Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.001 par value per share	457(c)	16,537,961 ⁽¹⁾	\$1.59 ⁽²⁾	\$26,295,358.00	0.0000927	\$2,437.58
Total Offering Amounts					\$26,295,358.00		\$2,437.58
Total Fee Offsets							-
Net Fee Due							\$2,437.58

(1) Consists of shares of common stock that may be issued upon the exercise of Warrants or conversion of Series A Common Equivalent Preferred Stock. Includes an indeterminable number of additional shares of common stock, pursuant to Rule 416 under the Securities Act, that may be issued to prevent dilution from stock splits, stock dividends or similar transactions that could affect the shares to be offered by the selling stockholders.

(2) Estimated solely for the purpose of calculating the amount of registration fee pursuant to Rule 457(c) under the Securities Act, based upon the average of the high and low sale prices of the registrant's shares of common stock on August 8, 2022, as reported on The Nasdaq Global Select Market.