

PROSPECTUS

\$21,000,000

**Common Stock**

We have entered into an At-the-Market Equity Offering Sales Agreement, or sales agreement, with Stifel, Nicolaus & Company, Incorporated, or Stifel, and Virtu Americas LLC, or Virtu, relating to shares of our common stock offered by this prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$21,000,000 from time to time through or to Stifel and Virtu acting as sales agent or principal.

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol "ANGN." On May 23, 2022, the last reported sale price of our common stock was \$1.24 per share.

Sales of Angion Biomedica Corp. common stock, if any, under this prospectus may be made in sales deemed to be "at the market offerings" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act. Subject to the terms of the sales agreement, Stifel and Virtu are not required to sell any specific number or dollar amounts of securities but will act as sales agents and use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Stifel and/or Virtu and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The aggregate market value of our outstanding common stock held by non-affiliates was approximately \$21 million, which was calculated based on 25,483,940 shares of outstanding common stock held by non-affiliates, at a price per share of \$2.50, the closing price of our common stock on March 18, 2022. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell the securities described in this prospectus in a public primary offering with a value exceeding more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our outstanding common stock held by non-affiliates remains below \$75 million. During the 12 calendar months prior to and including the date of this prospectus, we have not offered or sold any securities pursuant to General Instruction I.B.6 of Form S-3.

Stifel and Virtu will be entitled to compensation at a fixed commission rate of up to 3.0% of the aggregate gross sales price per share sold. In connection with the sale of our common stock on our behalf, Stifel and Virtu will be deemed to be "underwriters" within the meaning of the Securities Act and the compensation of paid to Stifel and Virtu will be deemed to be underwriting commissions or discounts.

Investing in our securities involves a high degree of risk. Before making an investment decision, you should review carefully and consider all of the information set forth in this prospectus and the documents incorporated by reference in this prospectus. See "Risk Factors" beginning on page [S-4](#) of this prospectus and in the documents 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.

Stifel**Virtu**

The date of this prospectus is May 23, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under the shelf registration statement we may offer shares of our common stock, preferred stock, debt securities and warrants, including common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants, having an aggregate offering price of up to \$100,000,000. Under this prospectus, we may offer shares of our common stock having an aggregate offering price of up to \$21,000,000 from time to time at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in this prospectus, which describes the specific details regarding this offering. If information in this prospectus is inconsistent with documents incorporated by reference in this prospectus filed prior to the date of this prospectus, you should rely on this prospectus. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in this prospectus — the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Stifel, Nicolaus & Company, Incorporated and Virtu Americas LLC have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We, Stifel and Virtu take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and Stifel and Virtu are not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus captioned “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this

prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” and elsewhere in this prospectus and documents incorporated by reference into this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

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

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

References in this prospectus to “Angion”, “Angion Biomedica,” “the Company,” “we”, “us” and “our” refer to Angion Biomedica Corp., a Delaware corporation, and its consolidated subsidiaries, if any, unless otherwise specified.

Angion Biomedica Corp.

Overview

We are a clinical-stage biopharmaceutical company focused on the discovery, development, and commercialization of novel small molecule therapeutics to address chronic and progressive fibrotic diseases. Our goal is to transform the treatment paradigm for patients suffering from these potentially life-threatening conditions for which there are no approved medicines or where existing approved medicines have known limitations. Our lead product candidate is ANG-3070, a highly selective oral tyrosine kinase receptor inhibitor (TKI) in development as a treatment for fibrotic diseases, particularly in the kidney and lung. ANG-3070 has demonstrated activity as an anti-fibrotic agent in a variety of animal models. A Phase 1 healthy volunteer study, which was designed to support clinical development in multiple indications, demonstrated ANG-3070 has a favorable safety and PK profile, producing plasma concentrations which exceeded the levels necessary for activity in animal models of proteinuric kidney diseases. Enrollment is ongoing in “JUNIPER,” a dose-finding Phase 2 trial of ANG-3070 in primary proteinuric kidney diseases (PPKDs) and we expect to file an IND in idiopathic pulmonary fibrosis (IPF) by the end of 2022.

We continue to work with our license partner Vifor International, Ltd, (Vifor Pharma) on the process of closing out our analyses of data from the 2021 clinical trial readouts of ANG-3777, a hepatocyte growth factor (HGF) mimetic that was formerly our lead product candidate until December 2021. We do not intend to continue the clinical development plan for ANG-3777 set forth in the Vifor License, which had included a Phase 3 study for the prevention of AKI in patients undergoing cardiac surgery involving cardiopulmonary bypass who were thought to be at risk for AKI (CSA-AKI) and a Phase 4 confirmatory study in donor kidney transplant patients who were at risk for developing delayed graft function (DGF), given that we do not believe the earlier Phase 2 and Phase 3 clinical trial results in the respective indications support regulatory approval. We have no funds budgeted for additional clinical trials for ANG-3777.

We are also continuing to develop our preclinical programs. Our ROCK2 program is targeted towards the treatment of fibrotic diseases. Our CYP11B2 program is targeted towards diseases related to aldosterone synthase dysregulation.

Risks Associated with our Business

Our business is subject to numerous risks. You should read these risks before you invest in our common stock. In particular, our risks include, but are not limited to, the following:

- We are a clinical-stage biopharmaceutical company with no products approved for sale and we have not generated any product revenue to date, which makes it difficult to assess our future viability;
- To achieve our goals we will require substantial additional funding, for which capital may not be available to us on acceptable terms, or at all, and, if not so available, may require us to delay, limit, reduce or cease our clinical trials or operations;
- Product development and regulatory approval involve a lengthy and expensive process with uncertain outcomes. We cannot be certain ANG-3070 or any of our other product candidates will receive or

maintain regulatory approval and, without regulatory approval, we and our collaborators will not be able to market our product candidates;

- Clinical failure can occur at any stage of clinical development, and the results of earlier clinical trials are not necessarily predictive of future results;
- Even if we successfully complete ongoing and planned clinical trials of one or more of our product candidates, the product candidates may fail for other reasons;
- Our product candidates may have undesirable side effects which may delay or halt clinical development or prevent marketing approval or, if approval is received, require them to be taken off the market, require them to include safety warnings, or otherwise limit their sales;
- If we are able to develop and obtain regulatory approval for any of our product candidates, our business will be materially harmed if we are unable to successfully commercialize such approved products;
- We currently depend on single third-party suppliers for the manufacture and supply of drug substance and potential future commercial product supplies for our product candidates, and any performance failure on the part of our supplier could delay the development and potential commercialization of our product candidates;
- We depend on third-party contractors for a substantial portion of our operations and may not be able to control their work as effectively as if we performed these functions ourselves. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be unable to obtain regulatory approval for or commercialize our product candidates, if approved; and
- It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection. If our patent position and potential regulatory exclusivity do not adequately protect our product candidates, others could compete against us more directly, which would harm our business, possibly materially.

Corporate Information

We were incorporated in the State of Delaware on April 6, 1998. Our corporate operations are based in San Francisco, California, our clinical development and regulatory teams are primarily located in Boston, Massachusetts, and our discovery and research programs are based in Uniondale, New York. Our principal executive offices are located at 51 Charles Lindbergh Boulevard, Uniondale, New York 11553, and our telephone number is (415) 655-4899. Our website address is www.angion.com. The information contained on, or that can be accessed through, our website will not be deemed to be incorporated by reference into this prospectus and does not constitute part of this prospectus. Our website address is included in this prospectus as an inactive textual reference only.

The Offering	
Common stock offered by us	Shares of our common stock having an aggregate offering price of up to \$21,000,000.
Common stock to be outstanding after this offering	Up to 46,894,202 shares (as more fully described in the notes following this table), assuming sales of 16,935,483 shares of our common stock in this offering at an offering price of \$1.24 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on May 23, 2022. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of offering	“At the market offering” that may be made from time to time through or to Stifel, Nicolaus & Company, Incorporated, or Stifel, and Virtu Americas LLC, or Virtu, as sales agent or principal. See “Plan of Distribution” on page S-12.
Use of Proceeds	We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures. See “Use of Proceeds” on page S-7.
Risk Factors	You should read the “Risk Factors” section of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors to consider before deciding to purchase shares of our common stock.
Nasdaq Global Select Market Symbol	“ANGN”
<p>The number of our shares of common stock outstanding is based on 29,958,719 shares of common stock outstanding as of March 31, 2022, and excludes the following, all as of March 31, 2022:</p> <ul style="list-style-type: none"> • 5,814,847 shares of common stock issuable upon the exercise of outstanding stock options with a weighted-average exercise price of \$6.13 per share; • 202,649 shares of common stock issuable upon the exercise of outstanding restricted stock units and performance stock units; and • up to an aggregate of 4,268,851 shares of common stock available for future grant under our 2021 Equity Incentive Plan (“2021 Plan”), and our Employee Stock Purchase Plan (the “ESPP”). 	

RISK FACTORS

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

Additional Risks Related to This Offering

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

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value.

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

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

We do not intend to pay dividends in the foreseeable future.

We have never paid cash dividends on our common stock and currently do not plan to pay any cash dividends in the foreseeable future.

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

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

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

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We

will have discretion, subject to market demand, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice delivered to the sales agents, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- the potential benefits, activity, effectiveness and safety of our product candidates;
- the success and timing of our preclinical studies and clinical trials, including the timing and availability of data from such clinical trials;
- the primary endpoints to be utilized in our clinical trials;
- the scope, progress, expansion, and costs of developing and commercializing our product candidates;
- our dependence on existing and future collaborators for commercializing product candidates in the collaboration;
- our receipt and timing of any milestone payments or royalties under any existing or future research collaboration and license agreements or arrangements;
- the potential effects of the COVID-19 pandemic on our business and operations, results of operations and financial performance;
- the potential adverse effects of any regional armed conflicts on our business and operations, results of operations and financial performance;
- the size and growth of the potential markets for our product candidates and the ability to serve those markets;
- our expectations regarding our expenses and revenue, the sufficiency of our cash resources, and needs for additional financing;
- regulatory developments in the United States and other countries;
- the rate and degree of market acceptance of any future products;
- the implementation of our business model and strategic plans for our business and product candidates, including additional indications for which we may pursue;
- our expectations regarding competition;
- our anticipated growth strategies;
- the performance of third-party manufacturers;
- our ability to establish and maintain development partnerships;
- our expectations regarding federal, state, and foreign regulatory requirements;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- the successful development for our sales and marketing capabilities;
- the hiring and retention of key scientific or management personnel; and
- the anticipated trends and challenges in our business and the market in which we operate.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss in greater detail many of these risks under the heading “Risk Factors” contained in the applicable prospectus supplement, in any free writing prospectuses we may authorize for use in connection with a specific offering, and in our most recent annual report on Form 10-K and in our most recent quarterly report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new

information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should read this prospectus, any applicable prospectus supplement, together with the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$21,000,000 from time to time. Because there is no minimum offering amount required pursuant to the At-the-Market Equity Offering Sales Agreement, or sales agreement, with Stifel and Virtu, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. Actual net proceeds will depend on the number of shares we sell and the prices at which such sales occur. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with Stifel and Virtu as a source of financing.

We currently intend to use the net proceeds from the sale of the common stock offered by us hereunder, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures.

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

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 300,000,000 shares of common stock, \$0.01 par value per share, and 10,000,000 shares of preferred stock, \$0.01 par value per share. A description of material terms and provisions of our certificate of incorporation and bylaws affecting the rights of holders of our capital stock is set forth below. The description is intended as a summary, and is qualified in its entirety by reference to our certificate of incorporation and the bylaws.

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. In addition, the affirmative vote of holders of 662/3% of the voting power of all of the then outstanding voting stock is required to take certain actions, including amending certain provisions of our amended and restated certificate of incorporation, such as the provisions relating to amending our amended and restated bylaws, the classified board and director liability.

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.

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 fully paid and nonassessable.

Preferred stock

Our board of directors is authorized, subject to limitations prescribed by Delaware law, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by the company's stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, discouraging or preventing a change in control of Angion Biomedica and may adversely affect the market price of Angion Biomedica's common stock and the voting and other rights of the holders of common stock.

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

Certain 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 an unfriendly 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.

Delaware Anti-Takeover Statute

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

Undesignated Preferred Stock

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

Special Stockholder Meetings

Our amended and restated bylaws provide that a special meeting of stockholders may be called at any time by our board of directors or the chairperson of the Board of Directors or our President or Chief Executive Officer, but such special meetings may not be called by the stockholders or any other person or persons.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and our amended and restated bylaws eliminated the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of our common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation provides for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least a 662/3% of the voting power

of the then outstanding voting stock. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders. This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or stockholders to us or to our stockholders; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws (as either may be amended from time to time); or any action asserting a claim against us that is governed by the internal affairs doctrine. As a result, any action brought by any of our stockholders with regard to any of these matters will need to be filed in the Court of Chancery of the State of Delaware and cannot be filed in any other jurisdiction; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction; and provided further that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action against us or any of our directors, officers, employees or agents and arising under the Securities Act. Nothing in our amended and restated certificate of incorporation and amended and restated bylaws preclude stockholders that assert claims under the Exchange Act from bringing such claims in state or federal court, subject to applicable law.

If any action the subject matter of which is within the scope described above is filed in a court other than a court located within the State of Delaware, or a Foreign Action, in the name of any stockholder, such stockholder shall be deemed to have consented to the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the applicable provisions of our amended and restated certificate of incorporation and amended and restated bylaws and having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder. Although our amended and restated certificate of incorporation and amended and restated bylaws contain the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder.

Amendment of Charter Provisions

The amendment of any of the above provisions in our amended and restated certificate of incorporation, except for the provision making it possible for our board of directors to issue undesignated preferred stock, would require approval by a stockholder vote by the holders of at least a 66 $\frac{2}{3}$ % of the voting power of the then outstanding voting stock.

The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These

provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitation of Liability and Indemnification Matters

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

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

Each of our amended and restated certificate of incorporation and amended and restated bylaws provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys’ fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors’ and officers’ liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder’s investment may be adversely affected to the extent that we pay the costs of settlement and damages.

Transfer Agent and Registrar

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

Listing on the Nasdaq Global Select Market

Our common stock is listed on the Nasdaq Global Select Market the symbol “ANGN.”

PLAN OF DISTRIBUTION

We have entered into an At-the-Market Equity Offering Sales Agreement with Stifel, Nicolaus & Company, Incorporated, or Stifel, and Virtu Americas LLC, or Virtu, under which we may issue and sell shares of our common stock having an aggregate gross sales price of up to \$21,000,000 from time to time through or to Stifel and Virtu acting as agent or principal. The sales agreement has been filed as an exhibit to our registration statement on Form S-3 of which this prospectus forms a part.

Upon delivery of a placement notice and subject to the terms and conditions of the sales agreement, Stifel and Virtu may sell our common stock by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act. We may instruct Stifel and Virtu not to sell common stock if the sales cannot be effected at or above the price designated by us from time to time. We, Stifel or Virtu may suspend the offering of common stock upon notice and subject to other conditions.

We will pay Stifel and Virtu commissions, in cash, for their services in acting as agents in the sale of our common stock. Stifel and Virtu will be entitled to compensation at a fixed commission rate of up to 3.0% of the aggregate gross sales price per share sold. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse Stifel and Virtu for certain specified fees and documented expenses, including the fees and documented expenses of their legal counsel in an amount not to exceed \$60,000, as provided in the sales agreement, as well as certain ongoing disbursements of their legal counsel of up to \$5,000 per calendar quarter. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to Stifel and Virtu under the terms of the sales agreement, will be approximately \$90,000.

Settlement for sales of common stock will occur on the second trading day following the date on which any sales are made, or on some other date that is agreed upon by us and the sales agents in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and the sales agents may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement. Each of Stifel and Virtu will use its commercially reasonable efforts consistent with its normal trading and sales practices, to solicit offers to purchase the common stock shares under the terms and subject to the conditions set forth in the sales agreement. In connection with the sale of the common stock on our behalf, the sales agents may be deemed to be “underwriters” within the meaning of the Securities Act and the compensation of such sales agents may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to the sales agents against certain civil liabilities, including liabilities under the Securities Act.

The offering of our common stock pursuant to the sales agreement will terminate as permitted therein. We, Stifel and Virtu may each terminate the sales agreement at any time upon ten days’ prior notice.

Stifel and Virtu and their respective affiliates, may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, Stifel and Virtu will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus.

This prospectus in electronic format may be made available on websites maintained by Stifel and Virtu, and Stifel and Virtu may distribute this prospectus electronically.

LEGAL MATTERS

Cooley LLP has passed upon the validity of the shares of our common stock offered hereby. Stifel and Virtu are being represented by Duane Morris LLP, New York, New York in connection with the offering.

EXPERTS

The consolidated financial statements of Angion Biomedica Corp. incorporated in this prospectus from Angion Biomedica Corp.'s Annual Report on Form 10-K for the year ended December 31, 2021 have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-39990):

- Our [Annual Report on Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 30, 2022;
- Our [Quarterly Report on Form 10-Q](#) for the quarter ended March 31, 2022, filed with the SEC on May 16, 2022;
- our Current Reports on Form 8-K filed with the SEC on [January 4, 2022](#) (other than Item 2.02) and [March 4, 2022](#);
- the description of our common stock set forth in our registration statement on [Form 8-A, filed with the SEC on February 2, 2021](#), as amended by [Amendment No. 1 thereto filed with the SEC on February 4, 2021](#), including any additional amendment or report filed for the purpose of updating such description, including [Exhibit 4.5](#) to our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 30, 2022.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, which will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. We will furnish

without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

Angion Biomedica Corp.
Attn: General Counsel
51 Charles Lindbergh Boulevard
Uniondale, NY 11553
(415) 655-4899



Up to \$21,000,000

Common Stock

PROSPECTUS

Stifel

Virtu

May 23, 2022
