

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ASENSUS SURGICAL, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

11-2962080
(I.R.S. Employer
Identification Number)

**1 TW Alexander Drive, Suite 160
Durham, NC 27703
(919) 765-8400**

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

Shameze Rampertab
Executive Vice President and Chief Financial Officer
**1 TW Alexander Drive, Suite 160
Durham, NC 27703
(919) 765-8400**

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

With a copy to:
Mary J. Mullany, Esquire
Ballard Spahr LLP
1735 Market Street, 51st Floor
Philadelphia, PA 19103
(215) 864-8631

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

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, 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 filed 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, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act (Check one):

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

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

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered (1)	Amount to be Registered (2)	Proposed Maximum Offering Price Per Security (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee (2)
Common stock, par value \$0.001 per share (3)				
Preferred stock, par value \$0.01 per share (3)				
Warrants				
Units (4)				

- (1) Securities registered hereunder may be sold either separately or as units comprising more than one type of security registered hereunder.
- (2) An unspecified aggregate initial offering price, principal amount or number of securities of each identified class is being registered as may from time to time be issued at indeterminate prices or upon conversion of, or in exchange for, or upon exercise of securities registered hereunder to the extent any such securities are, by their terms, convertible into, or exchangeable or exercisable for, such securities. Separate consideration may or may not be received for securities that are issuable upon conversion of, or in exchange for, or upon exercise of, convertible or exchangeable securities. The Registrant is deferring payment of the registration fee pursuant to Rule 456(b) and is omitting this information in reliance on Rule 456(b) and Rule 457(r).
- (3) Shares of common stock or preferred stock may be issued in primary offerings or upon conversion of warrants or preferred stock registered hereby.
- (4) Represents an interest in two or more other securities, which may or may not be separable from one another.

PROSPECTUS



Common Stock
Preferred Stock
Warrants
Units

Asensus Surgical, Inc. may, from time to time, in one or more offerings, offer and sell common stock, preferred stock, warrants and units. The preferred stock may be convertible into or exchangeable or exercisable for other securities. We will provide specific terms of any offering and the offered securities in supplements to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus.

We may offer and sell these securities to or through underwriters, dealers or agents, directly to purchasers or through a combination of these methods. If an offering of securities involves any underwriters, dealers or agents, then the names of the underwriters, dealers or agents and the terms of the arrangements with such entities will be stated in an accompanying prospectus supplement.

Our common stock is listed on the NYSE American under the symbol "ASXC." We have not yet determined whether any of the other securities that may be offered by this prospectus will be listed on any exchange, inter-dealer quotation system or over-the-counter market. If we decide to seek listing of any such securities upon issuance, an accompanying prospectus supplement will disclose the exchange, quotation system or market on which the securities will be listed.

The prospectus may not be used to sell our securities unless it is accompanied by a prospectus supplement.

Investing in our securities involves risk. Before you invest, you should carefully read and evaluate the risk factors and other information included in this prospectus and any applicable prospectus supplement, including the documents incorporated by reference. See "[Risk Factors](#)" on page 2 of 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 May 19, 2021.

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ABOUT THIS PROSPECTUS

This document is called a prospectus and is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. Under this shelf process, we may, from time to time, in one or more offering, offer and sell common stock, preferred stock, warrants and units. This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering and the offered securities. That prospectus supplement may include a discussion of any risk factors or other special considerations applicable to those securities. The prospectus supplement also may add, update or change information contained in this prospectus. You should read both this prospectus and the applicable prospectus supplement and the exhibits filed with our registration statement together with the additional information described below under the heading “Where You Can Find More Information” before you decide whether to invest in the securities.

The registration statement (including the exhibits) of which this prospectus is a part contains additional information about us and the securities we may offer by this prospectus. Specifically, we have filed certain legal documents that control the terms of the securities offered by this prospectus as exhibits to the registration statement. We will file certain other legal documents that will control the terms of the securities we may offer by this prospectus as exhibits to the registration statement or to reports we file with the SEC. The registration statement and the reports can be read at the SEC website or at the SEC offices mentioned under the heading “Where You Can Find More Information.”

We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus, any prospectus supplements or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this document is accurate only as of the date on the front cover of this document. Our business, financial condition, results of operations and prospects may have changed since that date.

As used in this prospectus, “we,” “our,” “us,” or the “Company” refer to Asensus Surgical, Inc., including its subsidiaries Asensus Surgical US, Inc., SafeStitch LLC, Asensus International, Inc., Asensus Surgical Italia S.r.l., Asensus Surgical Europe S.à.r.l., Asensus Surgical Taiwan Ltd., Asensus Surgical Japan K.K., Asensus Surgical Israel Ltd., Asensus Surgical Netherlands B.V., and Asensus Surgical Canada, Inc.

This prospectus and the information incorporated by reference herein and therein include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains 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, as amended, or the Exchange Act. All statements, other than statements of historical fact, included or incorporated by reference in this prospectus regarding our strategy, future operations, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans and objectives are forward-looking statements. The words “believes,” “anticipates,” “estimates,” “plans,” “expects,” “intends,” “may,” “could,” “should,” “potential,” “likely,” “projects,” “continue,” “will,” and “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those set forth above under the heading “Risk Factors” in the reports incorporated by reference herein. These factors and the other cautionary statements made in this prospectus or incorporated by reference herein should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus or in the reports incorporated by reference herein. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus is filed with the SEC, and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

You should rely only on the information contained in this prospectus and in any prospectus supplement (including in any documents incorporated by reference herein or therein). We have not authorized anyone to provide you with any different information. We are offering to sell our securities, and seeking offers to buy, only in jurisdictions where offers and sales are permitted.

ASENSUS SURGICAL, INC.

Asensus Surgical is a medical device company that is digitizing the interface between the surgeon and the patient to pioneer a new era of Performance-Guided Surgery™ by unlocking the clinical intelligence to enable consistently superior outcomes and a new standard of surgery. This builds upon the foundation of Digital Laparoscopy with the Senhance® Surgical System powered by the Intelligent Surgical Unit, or ISU, to increase surgeon control and reduce surgical variability. With the addition of machine vision, augmented intelligence, and deep learning capabilities throughout the surgical experience, we intend to holistically address the current clinical, cognitive and economic shortcomings that drive surgical outcomes and value-based healthcare. The Company is focused on the market development for and commercialization of the Senhance Surgical System, which digitizes laparoscopic minimally invasive surgery, or MIS. The Senhance System is the first and only digital, multi-port laparoscopic platform designed to maintain laparoscopic MIS standards while providing digital benefits such as haptic feedback, robotic precision, comfortable ergonomics, advanced instrumentation including 3 mm microlaparoscopic instruments, eye-sensing camera control and fully-reusable standard instruments to help maintain per-procedure costs similar to traditional laparoscopy.

The Senhance System is available for sale in Europe, the United States, Japan, Taiwan, Russia and select other countries.

- The Senhance System has a CE Mark in Europe for adult and pediatric laparoscopic abdominal and pelvic surgery, as well as limited thoracic surgeries excluding cardiac and vascular surgery.
- In the United States, the Company has received 510(k) clearance from the FDA for use of the Senhance System in general laparoscopic surgical procedures and laparoscopic gynecologic surgery in a total of 31 indicated procedures, including benign and oncologic procedures, laparoscopic inguinal, hiatal and paraesophageal hernia, sleeve gastrectomy and laparoscopic cholecystectomy (gallbladder removal) surgery.
- In Japan, the Company has received regulatory approval and reimbursement for 98 laparoscopic procedures.
- The Senhance System has received its registration certificate by the Russian medical device regulatory agency, Roszdravnadzor, allowing for its sale and utilization throughout the Russian Federation.

We also enter into lease arrangements with certain qualified customers. For some lease arrangements, the customers are provided with the right to purchase the leased Senhance System during or at the end of the lease term, or a Lease Buyout. In the first quarter of 2021, we completed a Lease Buyout of a Senhance System.

In February 2021, we changed our name from TransEnterix, Inc. to Asensus Surgical, Inc. as part of our strategy to utilize the Senhance System and ISU capabilities, along with our other augmented intelligence related offerings and instrumentation to unlock clinical intelligence to enable consistently superior outcomes and a new standard of surgery we are calling Performance-Guided Surgery. We believe our product offerings, and our digitization of the interface between the surgeon and the patient allows us to assist the surgeon in all aspects of laparoscopic surgery including:

- Pre-operative - in what we call “intelligent preparation,” our machine learning models will take data from all of the procedures done utilizing our current Senhance System with the ISU, such as tracking surgical motion and team interaction, to create a large and constantly improving database of surgeries and their outcomes to enable surgeons to best inform their approach and surgical setup.
- Intra-operative – we believe the Senhance System provides perceptive real-time guidance for intra-operative tasks, allowing any surgeon performing a procedure with the Senhance System to perform multiple tasks and benefit from the collective knowledge and rules-based performance of thousands of other successful Senhance-based procedures. Not only will this provide the surgeon with a pathway to better outcomes, we believe it will ultimately help reduce the cognitive load of the surgeons.

- Future use post-operative – finally, by tapping into the vast amount of data captured during procedures, surgeons and operating room staff will be able to get actionable assessments of their performance giving them the information needed to improve performance over time. We intend on building a new standard of analytics to improve not only the skills of all surgeons but moving towards best-practice-sharing that bridges the global surgeon community.

We were organized as a Delaware corporation on August 19, 1988. Our principal executive offices are located at 1 TW Alexander Drive, Suite 160, Durham, NC 27703. Our phone number is (919) 765-8400 and our Internet address is www.asensus.com. The information on our website or any other website is not incorporated by reference in this prospectus and does not constitute a part of this prospectus.

RISK FACTORS

Investing in our securities involves substantial risks. In addition to other information contained in this prospectus and any accompanying prospectus supplement, before investing in our securities, you should carefully consider the risks described under the heading “Risk Factors” in our most recent Annual Report on Form 10-K, as it may be amended, and subsequent Quarterly Reports on Form 10-Q, and in any other documents incorporated by reference into this prospectus, as updated by our future filings. These risks are not the only ones faced by us. Additional risks not known or that are deemed immaterial could also materially and adversely affect our financial condition, results of operations, our products, business and prospects. Any of these risks might cause you to lose all or a part of your investment.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities under this prospectus, if any, together with our existing cash resources, for working capital and other general corporate purposes, including research and development, commercialization and regulatory clearance activities for our products. We may also use a portion of the net proceeds that we receive to acquire or invest in complementary businesses, products, services, technologies, or other assets. At this time, we have not determined the specific uses of any offering proceeds, or the amounts we plan to spend on any particular use or the timing of such expenditures, which may vary significantly depending on various factors such as our research and development activities, regulatory approvals, competition, marketing and sales, and the market acceptance of any products introduced by us or our partners. Pending application of the net proceeds from any particular offering, we intend to invest such proceeds in short-term, interest-bearing, investment-grade securities.

Each time we issue securities, we will provide a prospectus supplement that will contain information about how we intend to use the proceeds from each such offering.

We cannot guarantee that we will receive any proceeds in connection with any offering hereunder because we may choose not to issue any of the securities covered by this prospectus.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 750,000,000 shares of common stock, par value \$0.001 per share, and 25,000,000 shares of preferred stock, par value \$0.01 per share, including 7,937,057 shares designated as Series A Convertible Preferred Stock, none of which are outstanding.

Common Stock

Of the authorized common stock, as of March 31, 2021, there were 232,716,797 shares outstanding, and as of March 31, 2021, there were 6,700,679 shares of our common stock reserved for the exercise of outstanding stock options, warrants and restricted stock units. As of May 17, 2021, there were approximately 148 record holders (counting all shares held in single nominee registration as one stockholder). This does not include the number of persons whose stock is in nominee or “street name” accounts through brokers. The par value of our common stock is \$0.001 per share.

Subject to the prior rights of the holders of any shares of preferred stock which may be issued in the future, the holders of our common stock are entitled to receive dividends from our funds legally available therefor when, as and if declared by our Board of Directors, and are entitled to share ratably in all of our assets available for distribution to holders of our common stock upon the liquidation, dissolution or winding-up of our affairs, subject to the liquidation preference, if any, of any then outstanding shares of preferred stock. Holders of our common stock do not have any preemptive, subscription, redemption or conversion rights. Holders of our common stock are entitled to one vote per share on all matters which they are entitled to vote upon at meetings of stockholders or upon actions taken by written consent pursuant to Delaware corporate law. The holders of our common stock do not have cumulative voting rights, which mean that the holders of a plurality of the outstanding shares can elect all of our directors. All of the shares of our common stock currently issued and outstanding are fully-paid and nonassessable. No dividends have been paid to holders of our common stock since our incorporation, and no cash dividends are anticipated to be declared or paid in the reasonably foreseeable future.

Transfer Agent

The transfer agent for our common stock is Continental Stock & Transfer Company.

Listing

The shares of our common stock are currently listed on the NYSE American under the symbol “ASXC.”

Preferred Stock

Our Board of Directors has the authority, without further action by the holders of the outstanding common stock, to issue preferred stock from time to time in one or more classes or series, to fix the number of shares constituting any class or series and the stated value thereof, if different from the par value, as to fix the terms of any such series or class, including dividend rights, dividend rates, conversion or exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price and the liquidation preference of such class or series.

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

Delaware Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to such date, our board of directors approves either the business combination or the transaction that resulted in the stockholder’s becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owns at least 85% of our outstanding voting stock, excluding shares held by directors, officers and certain employee stock plans; or
- on or after the consummation date, the business combination is approved by our board of directors and by the affirmative vote at an annual or special meeting of stockholders holding at least two-thirds of our outstanding voting stock that is not owned by the interested stockholder.

For purposes of Section 203, a “business combination” includes, among other things, a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and an “interested stockholder” is generally a person who, together with affiliates and associates of such person:

- owns 15% or more of outstanding voting stock; or
- is an affiliate or associate of ours and was the owner of 15% or more of our outstanding voting stock at any time within the prior three years.

Certificate of Incorporation and Bylaw Provisions

Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that, among others, could have the effect of delaying, deferring or discouraging potential acquisition proposals and could delay or prevent a change of control of our company. The provisions in our certificate of incorporation and bylaws that may have such effect include:

- Preferred Stock. As noted above, our board of directors, without stockholder approval, has the authority under our certificate of incorporation to issue preferred stock with rights superior to the rights of the holders of common stock. As a result, we could issue preferred stock quickly and easily, which could adversely affect the rights of holders of our common stock and could be issued with terms calculated to delay or prevent a change of control or make removal of management more difficult.
- Stockholder Meetings. Under our certificate of incorporation, as amended, and bylaws, special meetings of our stockholders may be called only by the vote of a majority of the entire board of directors or the chairman of the board of directors. Our stockholders may not call a special meeting of the stockholders.
- Requirements for Advance Notification of Stockholder Nominations and Proposals. Our 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 our board of directors or a committee thereof.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase preferred stock or common stock. We may offer warrants separately or together with one or more additional warrants, shares of preferred stock or common stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the warrants’ expiration date. We may issue the warrants under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, all as described in the prospectus supplement. If we issue the warrants under warrant agreements, the warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

We will describe the particular terms of any warrants that we offer in the prospectus supplement relating to those warrants. Those terms may include the following:

- the specific designation and aggregate number of warrants, and the price at which we will issue the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the warrants will begin and the date on which the right will expire or, if the warrants are not continuously exercisable throughout that period, the specific date or dates on which they are exercisable;

- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms;
- any applicable material United States federal income tax considerations;
- the identity of the warrant agent, if any, for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the designation, amount, currency, denominations and terms of any preferred stock or common stock purchasable upon exercise of the warrants;
- if applicable, the designation and terms of the preferred stock or common stock with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and the related preferred stock or common stock will be separately transferable;
- the number of shares of preferred stock or common stock purchasable upon exercise of any warrant and the price at which those shares may be purchased;
- provisions for changes to or adjustments in the exercise price;
- if applicable, the minimum or maximum number of warrants that may be exercised at any one time;
- information with respect to any book-entry procedures;
- any anti-dilution provision of the warrants;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

As of March 31, 2021, we had common stock warrants to purchase 1,323,995 shares outstanding at exercise prices ranging from \$0.68 to \$52.20 per share. These common stock warrants were issued to various lenders and other third parties.

On March 10, 2020, we closed an underwritten public offering, or the March 2020 Public Offering, and sold an aggregate of 14,121,766 Class A Units at a public offering price of \$0.68 per Class A Unit and 7,937,057 Class B Units at a public offering price of \$0.68 per Class B Unit. Each Class A Unit consists of one share of the Company's common stock, one warrant to purchase one share of common stock that expired on the first anniversary of the date of issuance, or the Series C Warrants, and one warrant to purchase one share of common stock that expires on the fifth anniversary of the date of issuance, or the Series D Warrants. Each Class B Unit consisted of one share of Series A Convertible Preferred Stock, par value \$0.01 per share convertible into one share of common stock, a Series C Warrant to purchase one share of common stock and a Series D Warrant to purchase one share of common stock. In addition, the underwriter for the public offering exercised an over-allotment option and purchased 3,308,823 additional Series C Warrants and 3,308,823 additional Series D Warrants at the closing. As of March 31, 2021, all Series C Warrants have been exercised and there were 1,216,274 Series D Warrants outstanding with an exercise price of \$0.68 per share and an expiration date of March 10, 2025.

DESCRIPTION OF UNITS

We may issue units consisting of one or more of the other securities that may be offered under this prospectus, in any combination. These units may be issuable as, and for a specified period of time may be transferable only as, a single security, rather than as the separate constituent securities comprising such units. The statements made in this section relating to the units are summaries only and are not complete. When we issue units, we will provide the specific terms of the units in a prospectus supplement. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby from time to time in one or more of the following ways:

- through one or more underwriters;
- through dealers, who may act as agents or principals (including a block trade in which a broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction);
- directly to one or more purchasers;
- through agents;
- through registered direct offerings;
- as part of a collaboration with a third party;
- through “at the market offerings”, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market on an exchange or otherwise;
- in privately negotiated transactions; and
- in any combination of these methods of sale.

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

- the name or names of any agents, underwriters or dealers;
- the terms of the securities being offered, including the purchase price and the proceeds we will receive from the sale;
- any underwriting discounts and commissions or agency fees and other items constituting underwriters’ or agents’ compensation;
- any over-allotment options under which underwriters may purchase additional securities from us; and
- any discounts or concessions allowed or reallocated or paid to dealers.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices.

Underwriters, dealers, agents and others that participate in the distribution of the securities may be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. In no event will the total amount of cash compensation paid to underwriters, placement agents, dealers or brokers exceed 10% of the gross proceeds of the offering. We will identify in the applicable prospectus supplement any underwriters, dealers, agents and others and will describe their compensation. We may have agreements with underwriters, dealers, agents and others to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers, agents and others may engage in transactions with or perform services for us in the ordinary course of their businesses.

If required under applicable state securities laws, we will sell the securities only through registered or licensed brokers or dealers. In addition, in some states, we may not sell securities unless they have been registered or qualified for sale in the applicable state or unless we have complied with an exemption from any registration or qualification requirements.

Agents

We may designate agents who agree to solicit purchases for the period of their appointment or to sell securities on a continuing basis. Unless the prospectus supplement provides otherwise, agents will act on a best efforts basis for the period of their appointment. Agents may receive compensation in the form of commissions, discounts or concessions from us. Agents may also receive compensation from the purchasers of the securities for whom they sell as principals. Each particular agent will receive compensation in amounts negotiated in connection with the sale, which might be in excess of customary commissions.

Underwriters

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Unless the prospectus supplement provides otherwise, underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. We may change from time to time any initial public offering price and any discounts or concessions the underwriters allow or reallow or pay to dealers. We may use underwriters with whom we have a material relationship, and we may offer the securities to the public through an underwriting syndicate or through a single underwriter. We will describe in the prospectus supplement naming the underwriter the nature of any such relationship and underwriting arrangement.

Dealers

We also may sell securities to a dealer as principal. If we sell our securities to a dealer as a principal, then the dealer may resell those securities to the public at varying prices to be determined by such dealer at the time of resale. The name of the dealer and the terms of the transactions will be set forth in the applicable prospectus supplement.

Direct Sales and Institutional Purchases

We may also sell securities directly to one or more purchasers, in which case underwriters or agents would not be involved in the transaction.

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

Stabilization Activities

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act.

Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Such activities may cause the price of the securities to be higher than they would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on the NYSE American or otherwise.

Passive Market Making

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

Costs

We will bear all costs, expenses and fees in connection with the registration of the securities, as well as the expense of all commissions and discounts, if any, attributable to sales of the securities by us.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities that may be offered hereby will be passed upon for us by Ballard Spahr LLP, Philadelphia, Pennsylvania. If legal matters in connection with the offering made by this prospectus are passed on by counsel for the underwriters, dealers or agents, if any, that counsel will be named in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements as of December 31, 2020 and 2019 and for the years then ended incorporated by reference in this prospectus have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with the SEC, which means we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus supplement, and certain information that we will later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below as well as any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement until we sell all of the securities under this prospectus supplement, except that we do not incorporate any document or portion of a document that is "furnished" to the SEC, but not deemed "filed." The following documents filed with the SEC are incorporated by reference in this prospectus supplement and the accompanying prospectus:

- our Annual Report on [Form 10-K](#) or the year ended December 31, 2020, filed with the SEC on March 11, 2021;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2021, filed with the SEC on May 11, 2021;
- our Current Reports on Form 8-K filed with the SEC on [January 6, 2021](#) (Items 8.01 and 9.01), [January 14, 2021](#) (Items 1.01, 8.01 and 9.01), [January 19, 2021](#) (Items 8.01 and 9.01), [January 28, 2021](#) (Items 1.01, 8.01 and 9.01), [February 12, 2021](#) (Item 5.02), [February 23, 2021](#) (Item 8.01), [February 25, 2021](#) (Items 5.03 and 9.01), [March 3, 2021](#) (Item 8.01 and 9.01) and [April 30, 2021](#) (Items 1.01 and 9.01);
- our definitive proxy statement on [Schedule 14A](#), filed with the SEC on April 22, 2021; and
- the description of our common stock contained in the Registration Statement on [Form 8-A](#) filed on April 7, 2014, and any amendments to each such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

We will furnish to you, on written or oral request, a copy of any or all of the documents that have been incorporated by reference, including exhibits to these documents. You may request a copy of these filings at no cost by writing or telephoning our Secretary at the following address and telephone number:

Asensus Surgical, Inc.
Attention: Joshua Weingard, Chief Legal Officer and Secretary
1 TW Alexander Drive, Suite 160
Durham, NC 27703
Telephone No.: (919) 765-8400

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act to register our securities being offered in this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all the information set forth in the registration statement or the exhibits and schedules filed thereto. For further information about us and our securities offered by this prospectus, we refer you to the registration statement and the exhibits and schedules filed with the registration statement. Any statement contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement is not necessarily complete and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. You may read and copy any materials we file with the SEC, including the registration statement, at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549, on official business days during the hours of 10:00 a.m. to 3:00 p.m. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is <http://www.sec.gov>. You may also inspect our SEC reports and other information at our website at www.asensus.com. Information on or accessible through our website is not a part of this prospectus. We are subject to the information reporting requirements of the Exchange Act, and file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth an estimate of the costs and expenses payable by the Registrant in connection with the issuance and distribution of the securities being registered, other than underwriting discounts and commissions.

SEC registration fee	\$	*
Legal fees and expenses		**
Accounting fees and expenses		**
Transfer Agent and Registrar, and Depository fees		**
Printing fees		**
Rating agencies' fees		**
Miscellaneous		**
Total	\$	**

* Under SEC Rules 456(b) and 457(r), the SEC registration fee will be paid at the time of any particular offering of securities under this registration statement and is therefore not currently determinable.

** Because an indeterminate amount of securities is being registered, the expenses in connection with the issuance and distribution of the securities are not currently determinable. An estimate of these expenses for each offering under this registration statement will be reflected in the prospectus supplement relating thereto.

Item 15. Indemnification of Directors and Officers.

The Delaware General Corporation Law, or DGCL, and certain provisions of our bylaws under certain circumstances provide for indemnification of our officers, directors and controlling persons against liabilities which they may incur in such capacities. A summary of the circumstances in which such indemnification is provided for is contained herein, but this description is qualified in its entirety by reference to our bylaws.

Section 145 of the DGCL permits a corporation to indemnify any director, officer, employee or agent of the corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reason to believe his or her conduct was unlawful.

A similar standard is applicable in the case of derivative actions (i.e., actions brought by or on behalf of the corporation), except that indemnification only extends to expenses (including attorneys' fees) actually and reasonably incurred in connection with the defense or settlement of such action, and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's certificate of incorporation, bylaws, disinterested director vote, stockholder vote, agreement or otherwise.

Our bylaws provide for the indemnification described above and requires that any such indemnification only be made by the Company upon a determination that the applicable standard of conduct has been met, which determination shall be made (a) by the Board of Directors, by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (b) if such a quorum is not obtainable, or, even if obtainable, if a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (c) by the stockholders.

Our bylaws also authorize the Board of Directors, in its discretion, to pay the expenses of any such action in advance of the final disposition of such action upon a written undertaking by such indemnitee to repay such amounts if it shall ultimately be determined that he or she is not entitled to indemnification under the standard set by the DGCL and our bylaws.

Section 102(b)(7) of the DGCL permits, and the Company's Amended and Restated Certificate of Incorporation, as amended, provide, that no director shall be personally liable to the Company or its stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to the Company or its stockholders;
- from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL (unlawful payment of dividend or unlawful stock purchase or redemption); and
- from any transaction from which the director derived an improper personal benefit.

We have entered into an indemnification agreement with each of our directors and executive officers. The indemnification agreements provide indemnification to each director or executive officer (the "Indemnitee") against all expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by the Indemnitee, or on his or her behalf if the Indemnitee is, or is threatened to be made, a party to or participant in any proceeding related to his or her status as a director and/or executive officer of the Company, as long as the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal proceeding, had no reasonable cause to believe the Indemnitee's conduct was unlawful. For proceedings by or in the right of the Company, indemnification is provided as set forth above; provided, however, if applicable law so provides, no indemnification against such expenses will be made in respect of any claim, issue or matter in such proceeding as to which Indemnitee shall have been adjudged to be liable to the Company unless and to the extent that the Court of Chancery of the State of Delaware shall determine that such indemnification may be made.

Section 145(g) of the DGCL grants the power to us to purchase and maintain insurance which protects our officers and directors against any liabilities incurred in connection with their service in such a position, and such a policy may be obtained by us.

A stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits.

The following exhibits are filed as part of, or incorporated by reference into this registration statement:

<u>Exhibit Number</u>	<u>Identification of Exhibit</u>
1.1 +	Form of Underwriting Agreement
3.1	Amended and Restated Certificate of Incorporation of Asensus Surgical, Inc. (filed as Exhibit 3.1 to our Current Report on Form 8-K, filed with the SEC on February 25, 2021 and incorporated by reference herein).
3.2	Amended and Restated Bylaws of Asensus Surgical, Inc. (filed as Exhibit 3.2 to our Current Report on Form 8-K, filed with the SEC on February 25, 2021 and incorporated by reference herein).
4.1	Specimen Certificate for Common Stock of Asensus Surgical, Inc. (filed as Exhibit 4.1 to our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on March 11, 2021, and incorporated by reference herein).
4.2+	Form of Warrant Agreement (including form of warrant certificate)
4.3 +	Form of Unit Agreement (including form of unit certificate)
5.1 *	Opinion of Ballard Spahr LLP
23.1 *	Consent of BDO USA, LLP
23.2 *	Consent of Ballard Spahr LLP (included in Exhibit 5.1)
24.1 *	Power of Attorney (on signature page)

+ To be filed as an exhibit to a report filed pursuant to Sections 13(a), 13(c) or 15(d) of the Exchange Act or by post-effective amendment to the Registration Statement if securities are sold through one or more underwriters.

* Filed herewith.

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 of 1933;

(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 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 a 20% 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:

Paragraphs (1)(i), (1)(ii) and (1)(iii) of this section 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 Securities Exchange Act of 1934 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 of 1933, 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 of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) 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

(B) 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 of 1933 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; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness, 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 first use, 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 date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby further undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) 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 of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, 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 of whether such indemnification by it is against public policy as expressed in said act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Durham, State of North Carolina on the 19th day of May, 2021.

Asensus Surgical, Inc.

By: /s/ Anthony Fernando
Anthony Fernando
President and Chief Executive Officer
(principal executive officer)

By: /s/ Shameze Rampertab
Shameze Rampertab
Executive Vice President and Chief Financial Officer
(principal financial officer and
principal accounting officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Anthony Fernando, Shameze Rampertab and Joshua Weingard as true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement and any additional registration statements filed pursuant to Rule 462, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission (the "SEC"), and generally to do all such things in their names and behalf in their capacities as officers and directors to enable the Company to comply with the provisions of the Securities Act of 1933 and all requirements of the SEC, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorney-in-fact and agent, or their or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Anthony Fernando</u> Anthony Fernando	President, Chief Executive Officer and Director (principal executive officer)	May 19, 2021
<u>/s/ Shameze Rampertab</u> Shameze Rampertab	Executive Vice President and Chief Financial Officer (principal financial officer and principal accounting officer)	May 19, 2021

Signature	Title	Date
<u>/s/ Paul A. LaViolette</u> Paul A. LaViolette	Chairman of the Board and a Director	May 19, 2021
<u>/s/ Andrea Biffi</u> Andrea Biffi	Director	May 19, 2021
<u>/s/ Jane H. Hsiao</u> Jane H. Hsiao, Ph.D.	Director	May 19, 2021
<u>/s/ David B. Milne</u> David B. Milne	Director	May 19, 2021
<u>/s/ Richard C. Pfenniger, Jr.</u> Richard C. Pfenniger, Jr.	Director	May 19, 2021
<u>/s/ William N. Starling, Jr.</u> William N. Starling, Jr.	Director	May 19, 2021

Ballard Spahr LLP

1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599
TEL 215.665.8500
FAX 215.864.8999
www.ballardspahr.com

May 19, 2021

Asensus Surgical, Inc.
1 TW Alexander Drive, Suite 160
Durham, NC 27703

Re: RE: Asensus Surgical, Inc.

Ladies and Gentlemen:

We have acted as counsel to Asensus Surgical, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's Registration Statement on Form S-3 ASR, dated the date hereof (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to the issuance and/or sale by the Company from time to time of (i) shares of common stock, par value \$0.001 (the "Common Stock"), (ii) shares of preferred stock, par value \$0.01 ("Preferred Stock"), (iii) warrants (the "Warrants") and (iv) units composed of any of the foregoing (the "Units"). The Common Stock, the Preferred Stock, the Warrants and the Units are collectively referred to in this opinion as the "Securities."

The Company has informed us that the Securities will be sold or delivered on a delayed or continuous basis from time to time as set forth in the Registration Statement (and any amendments thereto), the prospectus contained therein and any prospectus supplement. We understand that prior to the sale of any Securities under the Registration Statement, the Company will afford us an opportunity to review the operative documents pursuant to which such Securities are to be sold and will file any applicable amendment to the Registration Statement or Current Report on Form 8-K (which may include as an exhibit an amendment to this opinion) or prospectus supplement as we may reasonably consider necessary or appropriate by reason of the terms of the sale of such Securities.

In so acting, we have examined originals or copies (certified or otherwise identified to our satisfaction) of (i) the Amended and Restated Certificate of Incorporation of the Company, together with all amendments thereto; (ii) the Amended and Restated Bylaws of the Company; (iii) the Registration Statement and the exhibits thereto; (iv) the prospectus contained within the Registration Statement; (v) such corporate records, agreements, documents and other instruments; and (vi) such certificates or comparable documents of public officials and other sources believed by us to be reliable, and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary as a basis for the opinions hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to this opinion that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

We have also assumed that (i) the Registration Statement and any amendments or supplements thereto (including any post-effective amendments) will have become effective and comply with all applicable laws and no stop order suspending the Registration Statement's effectiveness will have been issued and remain in effect, in each case, at the time the Securities are offered or issued as contemplated by the Registration Statement, (ii) a prospectus supplement will have been prepared and filed with the Commission describing the Securities offered thereby and will at all relevant times comply with all applicable laws, (iii) the Company has timely filed all necessary reports pursuant to the Securities Exchange Act of 1934, as amended, which are incorporated into the Registration Statement by reference, (iv) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the appropriate prospectus supplement, (v) a definitive purchase, underwriting or similar agreement and any other necessary agreement with respect to any Securities will have been duly authorized and validly executed and delivered by the Company and the other party or parties thereto and (vi) any Securities issuable upon conversion, exercise or exchange of any Securities being offered or issued will be duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exercise or exchange.

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that:

1. Common Stock. Assuming that the issuance and terms of any Common Stock and the terms of the offering thereof have been duly authorized, when (i) the Company has received the consideration therefor specified in any applicable underwriting agreement or purchase agreement approved by the Company's board of directors or any authorized committee thereof, (ii) the consideration for such Common Stock is at least equal to the aggregate par value of such Common Stock, (iii) in the case of any Common Stock to be issued under any Warrants, upon due exercise and delivery of any payment of the exercise price specified in such Warrants, and (iv) in the case of any Common Stock to be issued upon the exchange or conversion of Debt Securities, Preferred Stock, Warrants and other rights that are exchangeable for or convertible into Common Stock, due exercise of such exchange or conversion rights in accordance with the terms of the applicable instruments, such Common Stock (including any Common Stock that may be issued as part of Units or upon exercise, conversion, exchange or otherwise pursuant to the terms of any other Securities) will be validly issued, fully paid and non-assessable.

2. Preferred Stock. Assuming that the issuance and terms of any series of Preferred Stock and the terms of the offering thereof have been duly authorized, when (i) a Certificate of Designation fixing and determining the terms of the Preferred Stock has been duly filed with the Secretary of State of the State of Delaware and accepted for recording, (ii) the Company has received the consideration therefor specified in any applicable underwriting agreement or purchase agreement approved by the Company's board of directors or any authorized committee thereof, (iii) the consideration for such Preferred Stock is at least equal to the aggregate par value of such Preferred Stock and (iv) in the case of any Preferred Stock to be issued under any Warrants, upon due exercise and delivery of any payment of the exercise price specified in such Warrants, such Preferred Stock (including any Preferred Stock that may be issued as part of Units or upon exercise, conversion, exchange or otherwise pursuant to the terms of any other Securities) will be validly issued, fully paid and non-assessable.

3. Warrants. Assuming that the issuance and terms of any Warrants and the terms of the offering thereof have been duly authorized, when (i) the Warrant agreement or Warrant agreements relating to such Warrants have been duly authorized, executed and delivered by the Company and the warrant agent has been appointed by the Company, (ii) the terms of such Warrants have been duly established so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any requirement or restriction imposed by any court or governmental or regulatory body having jurisdiction over the Company, and (iii) such Warrants and any certificates representing such Warrants have been duly executed, authenticated, issued, paid for and delivered as contemplated in the Registration Statement and any prospectus supplement relating thereto, and in accordance with any underwriting agreement or purchase agreement approved by the Company's board of directors or any authorized committee thereof, such Warrants (including any Warrants that may be issued as part of Units or otherwise pursuant to the terms of any other Securities) will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

4. Units. Assuming that the issuance and terms of any Units and the terms of the offering thereof have been duly authorized, when (i) the Unit agreement or Unit agreements relating to such Units have been duly authorized, executed and delivered by the Company and the warrant agent appointed by the Company, (ii) the terms of such Units have been duly established so as not to violate any applicable law, affect the enforceability of such Units or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any requirement or restriction imposed by any court or governmental or regulatory body having jurisdiction over the Company, and (iii) such Units have been duly executed and authenticated in accordance with the applicable Unit agreement and issued, paid for and delivered as contemplated in the Registration Statement and any prospectus supplement relating thereto, and any underwriting agreement or purchase agreement approved by the Company's board of directors or any authorized committee thereof, such Units (including any Units that may be issued upon exercise, conversion, exchange or otherwise pursuant to the terms of any other Securities) will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The opinions expressed above with respect to validity, binding effect and enforceability are subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and similar laws affecting creditors' rights and remedies generally, and subject, as to enforceability, to general principles of equity, including principles of commercial reasonableness, good faith and fair dealing (regardless of whether enforcement is sought in a proceeding at law or in equity) and except that rights to indemnification and contribution thereunder may be limited by federal or state securities laws or public policy relating thereto.

We express no opinion as to the laws of any jurisdiction other than the federal laws of the United States of America and the laws of the State of Delaware and the State of New York.

We hereby consent to the use of this letter as an exhibit to the Registration Statement and to any and all references to our firm in the prospectus which is a part of the Registration Statement.

Sincerely yours,

/s/ Ballard Spahr LLP

Consent of Independent Registered Public Accounting Firm

Asensus Surgical, Inc.
Durham, North Carolina

We hereby consent to the incorporation by reference in the Registration Statement of our report dated March 11, 2021, relating to the consolidated financial statements of Asensus Surgical, Inc. appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2020.

We also consent to the reference to us under the caption "Experts" in the Prospectus incorporated by reference into such Registration Statement.

/s/BDO USA, LLP
Raleigh, North Carolina

May 19, 2021

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