

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

**FORM 8-K**

**CURRENT REPORT  
Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): October 13, 2020**

**ALPHATEC HOLDINGS, INC.**

(Exact Name of Registrant as Specified in Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**000-52024**  
(Commission  
File Number)

**20-2463898**  
(I.R.S. Employer  
Identification No.)

**5818 El Camino Real**  
**Carlsbad, California 92008**  
(Address of Principal Executive Offices)

**(760) 431-9286**  
(Registrant's telephone number, including area code)

**Not applicable**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14.a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$.0001 per share	ATEC	The NASDAQ Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

## **Item 1.01 Entry into a Material Definitive Agreement.**

On October 13, 2020, Alphatec Holdings, Inc. (the “Company”) entered into an Underwriting Agreement (the “Underwriting Agreement”) with Morgan Stanley & Co. LLC and Cowen and Company, LLC, as representative of the several underwriters named therein (collectively, the “Underwriters”), relating to the issuance and sale of 11,428,570 shares of common stock of the Company (the “Offering”). Pursuant to the Underwriting Agreement, the Company granted the Underwriters a 30-day option to purchase up to an additional 1,714,285 shares of common stock at the public offering price per share, less underwriting discounts and commissions, which option was exercised in full prior to the closing of the offering.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

The foregoing description of the Underwriting Agreement is not complete and is qualified in its entirety by reference to the full text of the Underwriting Agreement, a copy of which is filed herewith as Exhibit 1.1 to this Current Report on Form 8-K and is incorporated herein by reference. A copy of the opinion of Dentons US LLP, relating to the legality of the issuance and sale of the shares of common stock in the Offering, is filed as Exhibit 5.1 to this Current Report on Form 8-K.

## **Item 8.01 Other Events.**

On October 16, 2020, the Company announced the closing of the Offering, which included the issuance and sale of the shares of the Company’s common stock pursuant to the full exercise of the Underwriters’ option to purchase additional shares pursuant to the Underwriting Agreement. Morgan Stanley and Cowen acted as joint book-running managers in the Offering. Canaccord Genuity acted as lead manager in the Offering with Lake Street Capital Markets and Northland Capital Markets acting as co-managers.

The net proceeds to the Company from the Offering were approximately \$107.7 million, including the net proceeds from the option shares and deducting underwriting discounts and commissions and estimated offering expenses payable by the Company. The Company intends to use the net proceeds of the Offering for general corporate purposes, including working capital, capital expenditures and continued research and development with respect to products and technologies. A portion of the net proceeds of the Offering may also be used to fund possible investments in or acquisitions of complementary businesses, products, or technologies. The Company currently does not have any agreements or commitments to complete any such transaction.

The shares of common stock are being sold pursuant to a written prospectus supplement and accompanying prospectus forming part of a shelf registration statement on Form S-3 (Registration Statement No. 333-241677), previously filed with the Securities and Exchange Commission (“SEC”) and declared effective by the SEC on August 18, 2020.

On October 13, 2020, the Company issued a press release announcing the pricing of the Offering. The press release is filed as Exhibit 99.1 to this Current Report on Form 8-K.

On October 16, 2020, the Company issued a press release announcing the closing of the Offering and the full exercise of the underwriters’ option to purchase additional shares. The press release is filed as Exhibit 99.2 to this Current Report on Form 8-K.

Neither this Current Report on Form 8-K nor the press release shall constitute an offer to sell nor the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. The Offering may only be made by means of a prospectus supplement and related base prospectus.

## **Item 9.01 Financial Statements and Exhibits**

### **(d) Exhibits.**

- 1.1 [Underwriting Agreement dated October 13, 2020](#)
- 5.1 [Opinion of Dentons US LLP](#)
- 23.1 [Consent of Dentons US LLP \(contained in Exhibit 5.1\)](#)
- 99.1 [Press Release dated October 13, 2020](#)
- 99.2 [Press Release dated October 16, 2020](#)
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: October 16, 2020

**ALPHATEC HOLDINGS, INC.**

By: /s/ Jeffrey G. Black

Name: Jeffrey G. Black

Its: Chief Financial Officer

**11,428,570 Shares**

**ALPHATEC HOLDINGS, INC.**

**COMMON STOCK, PAR VALUE \$0.0001 PER SHARE**

**UNDERWRITING AGREEMENT**

October 13, 2020

Morgan Stanley & Co. LLC  
Cowen and Company, LLC

c/o Morgan Stanley & Co. LLC  
1585 Broadway  
New York, New York 10036

c/o Cowen and Company, LLC  
599 Lexington Avenue  
New York, New York 10022

Ladies and Gentlemen:

Alphatec Holdings, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several Underwriters named in Schedule I hereto (the “**Underwriters**”) 11,428,570 shares of its common stock, \$0.0001 par value per share (the “**Firm Shares**”). The Company also proposes to issue and sell to the several Underwriters not more than an additional 1,714,285 shares of its common stock, \$0.0001 par value per share (the “**Additional Shares**”), if and to the extent that Morgan Stanley & Co. LLC (“**Morgan Stanley**”) and Cowen and Company, LLC (“**Cowen**”), as representatives of the several Underwriters (the “**Representatives**”), shall have determined to exercise, on behalf of the Underwriters, the right to purchase such shares of common stock granted to the Underwriters in Section 2 hereof. The Firm Shares and the Additional Shares are hereinafter collectively referred to as the “**Shares**.” The shares of common stock, \$0.0001 par value per share of the Company to be outstanding after giving effect to the sales contemplated hereby are hereinafter referred to as the “**Common Stock**.”

The Company has filed with the Securities and Exchange Commission (the “**Commission**”) a registration statement on Form S-3 (File No. 333-241677), which became effective on August 18, 2020, including a preliminary prospectus, relating to the Shares. The registration statement, at the time it became effective, including the information (if any) deemed to be part of the registration statement at the time of effectiveness pursuant to Rule 430A under the Securities Act of 1933, as amended (the “**Securities Act**”), is hereinafter referred to as the “**Registration Statement**”; the prospectus in the form first used to confirm sales of Shares (or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act) is hereinafter referred to as the “**Prospectus**.” If the Company has filed an abbreviated registration statement to register additional shares of Common Stock pursuant to Rule 462(b) under the Securities Act (a “**Rule 462 Registration Statement**”), then any reference herein to the term “**Registration Statement**” shall be deemed to include such Rule 462 Registration Statement.

For purposes of this Agreement, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, “preliminary prospectus” shall mean each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted information pursuant to Rule 430A under the Securities Act that was used after such effectiveness and prior to the execution and delivery of this Agreement, “**Time of Sale Prospectus**” means the preliminary prospectus contained in the Registration Statement at the time of its effectiveness together with the documents and pricing information set forth in Schedule II hereto, and “**broadly available road show**” means a “bona fide electronic road show” as defined in Rule 433(h)(5) under the Securities Act that has been made available without restriction to any person. As used herein, the terms “Registration Statement,” “preliminary prospectus,” “Time of Sale Prospectus” and “Prospectus” shall include the documents, if any, incorporated by reference therein as of the date hereof. The terms “**supplement**,” “**amendment**” and “**amend**” as used herein with respect to the Registration Statement, the Time of Sale Prospectus or the Prospectus shall include all documents subsequently filed by the Company with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), that are deemed to be incorporated by reference therein.

1. *Representations and Warranties.* The Company represents and warrants to and agrees with each of the Underwriters that:

(a) The Registration Statement has become effective; no stop order suspending the effectiveness of the Registration Statement is in effect, and no proceedings for such purpose or pursuant to Section 8A under the Securities Act are pending before or threatened by the Commission.

(b) (i) Each document, if any, filed or to be filed pursuant to the Exchange Act and incorporated by reference in the Time of Sale Prospectus or the Prospectus complied when it was filed or will comply when so filed, as the case may be, in all material respects with the Exchange Act and the applicable rules and regulations of the Commission thereunder, as applicable, in effect at the time of such filing, (ii) the Registration Statement, when it became effective, did not contain and, as amended or supplemented, if applicable, as of the date of such amendment or supplement, will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (iii) the Registration Statement and the Prospectus comply and, as amended or supplemented, if applicable, as of the date of such amendment or supplement, will comply in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder, (iv) the Time of Sale Prospectus does not, and at the time of each sale of the Shares in connection with the offering when the Prospectus is not yet available to prospective purchasers and at the Closing Date (as defined in Section 4), the Time of Sale Prospectus, as then amended or supplemented by the Company, if applicable, as of the date of such amendment or supplement, will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, (v) each broadly available road show, if any, when considered together with the Time of Sale Prospectus, does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading and (vi) the Prospectus, as of its date, does not contain and, as amended or supplemented, if applicable, as of its date or as of the Closing Date and each Option Closing Date (as defined below) will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements

therein, in the light of the circumstances under which they were made, not misleading, except that the representations and warranties set forth in this paragraph do not apply to statements or omissions in the Registration Statement, the Time of Sale Prospectus or the Prospectus based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representatives expressly for use therein.

(c) The Company is not an “ineligible issuer” in connection with the offering pursuant to Rules 164, 405 and 433 under the Securities Act. Any free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply, as of the date of such filing, in all material respects with the applicable requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Except for the free writing prospectuses, if any, identified in Schedule II hereto, and electronic road shows, if any, each furnished to the Representatives before first use, the Company has not prepared, used or referred to, and will not, without the prior consent of the Representatives, prepare, use or refer to, any free writing prospectus.

(d) The Company has been duly incorporated, is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, has the corporate power and authority to own or lease its property and to conduct its business as described in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole.

(e) Each subsidiary of the Company has been duly incorporated, organized or formed, is validly existing as a corporation or other business entity in good standing under the laws of the jurisdiction of its incorporation, organization or formation, has the corporate or other business entity power and authority to own or lease its property and to conduct its business as described in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole; all of the issued shares of capital stock or other equity interests of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims.

(f) This Agreement has been duly authorized, executed and delivered by the Company.

(g) The authorized capital stock of the Company conforms as to legal matters to the description thereof contained in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(h) The shares of Common Stock outstanding prior to the issuance of the Shares have been duly authorized and are validly issued, fully paid and non-assessable.

(i) The Shares have been duly authorized and, when issued, delivered and paid for in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable, and the issuance of the Shares will not be subject to any preemptive or similar rights.

(j) Except as described in the Registration Statement, in the Time of Sale Prospectus and in the Prospectus, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company or any subsidiary of the Company any shares of the capital stock of the Company or any subsidiary of the Company. The description of the Company's stock option, stock bonus and other stock plans or arrangements (the "**Company Stock Plans**"), and the options (the "**Options**") or other rights granted thereunder, set forth in the Time of Sale Prospectus and in the Prospectus accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights. Each grant of an Option (A) was duly authorized no later than the date on which the grant of such Option was by its terms to be effective by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto and (B) was made in accordance with the terms of the applicable Company Stock Plan, and all applicable laws and regulatory rules or requirements, including all applicable federal securities laws.

(k) The execution and delivery by the Company of, and the performance by the Company of its obligations under, this Agreement will not contravene any provision of (i) applicable law, (ii) the certificate of incorporation or by-laws of the Company, (iii) any agreement or other instrument binding upon the Company or any of its subsidiaries that is material to the Company and its subsidiaries, taken as a whole, or (iv) any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Company or any subsidiary, except in the case of (iii) above, where contravention would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole, and no consent, approval, authorization or order of, or qualification with, any governmental body, agency or court is required for the performance by the Company of its obligations under this Agreement, except such as may be required by the securities or Blue Sky laws of the various states in connection with the offer and sale of the Shares.

(l) There has not occurred any material adverse change, or any development involving a prospective material adverse change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus.

(m) There are no legal or governmental proceedings pending or, to the Company's knowledge, threatened to which the Company or any of its subsidiaries is a party or to which any of the properties of the Company or any of its subsidiaries is subject (i) other than proceedings accurately described in all material respects in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus and proceedings that would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole, or on the power or ability of the Company to perform its obligations under this Agreement or to consummate the transactions contemplated by each of the Registration Statement, the Time of Sale Prospectus and the Prospectus or (ii) that are required to be described in the Registration Statement, the Time of Sale Prospectus or the Prospectus and are not so described in all material respects; and there are no statutes, regulations, contracts or other documents that are required to be described in the Registration Statement, the Time of Sale Prospectus or the Prospectus or to be filed as exhibits to the Registration Statement that are not described in all material respects or filed as required.

(n) Each preliminary prospectus filed as part of the Registration Statement as originally filed or as part of any amendment thereto, or filed pursuant to Rule 424 under the Securities Act, complied when so filed in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder.

(o) The Company is not, and after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus will not be, required to register as an "investment company" as such term is defined in the Investment Company Act of 1940, as amended.

(p) Except as disclosed in the Time of Sale Prospectus, the Registration Statement and the Prospectus, the Company and each of its subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole.

(q) There are no costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole.

(r) The Company and each of its subsidiaries (A) is in compliance, in all material respects, with any and all applicable foreign, federal, state and local laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act) relating to the protection of human health and safety in the workplace (“**Occupational Laws**”); (B) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct its business as currently conducted; and (C) is in compliance, in all material respects, with all terms and conditions of such permit, license or approval. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company’s knowledge, threatened against the Company or any of its subsidiaries relating to Occupational Laws.

(s) Except as disclosed in the Time of Sale Prospectus, the Registration Statement and the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company or to require the Company to include such securities with the Shares registered pursuant to the Registration Statement.

(t) (i) None of the Company or any of its subsidiaries or affiliates, or any director, officer, or employee thereof, or, to the Company’s knowledge, any agent or representative of the Company or of any of its subsidiaries or affiliates, has taken or will take any action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment, giving or receipt of money, property, gifts or anything else of value, directly or indirectly, to any government official (including any officer or employee of a government or government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office) in order to influence official action, or to any person in violation of any applicable anti-corruption laws; (ii) the Company and each of its subsidiaries and affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintained and will continue to maintain policies and procedures reasonably designed to promote and achieve compliance with such laws and with the representations and warranties contained herein; and (iii) neither the Company nor any of its subsidiaries will use, directly or indirectly, the proceeds of the offering in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any person in violation of any applicable anti-corruption laws.

(u) The operations of the Company and each of its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and each of its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “**Anti-Money Laundering Laws**”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(v) (i) None of the Company, any of its subsidiaries, or any director, officer, or employee thereof, or, to the Company's knowledge, any agent, affiliate or representative of the Company or any of its subsidiaries, is an individual or entity ("**Person**") that is, or is owned or controlled by one or more Persons that are:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authority (collectively, "**Sanctions**"), or

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Crimea, Cuba, Iran, North Korea and Syria).

(ii) The Company will not, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) For the past 5 years, the Company and each of its subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(w) The Company and each of its subsidiaries owns, possesses, or can acquire on reasonable terms, all Intellectual Property necessary for the conduct of the Company's and its subsidiaries' business as now conducted or as described in the Time of Sale Prospectus, the Registration Statement and in the Prospectus to be conducted, except as such failure to own, possess, or acquire such rights would not reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole. Furthermore, (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except as such infringement, misappropriation or violation would not reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole; (B) except as disclosed in the Time of Sale Prospectus, the Registration Statement and the Prospectus, there is no pending or, to the knowledge of the Company, threatened in writing, action, suit, proceeding or claim by others challenging the Company's or any of its subsidiaries' rights in or to any such Intellectual Property; (C) the Intellectual Property owned by the Company and its subsidiaries, and to the knowledge of the Company, the Intellectual Property licensed to the Company and its subsidiaries, has not been adjudged invalid or unenforceable, in whole or in part, and, except as disclosed in the Time of Sale Prospectus, the

Registration Statement and the Prospectus, there is no pending or, to the knowledge of the Company, threatened in writing action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property; (D) except as disclosed in the Time of Sale Prospectus, the Registration Statement and the Prospectus, there is no pending or, to the knowledge of the Company, threatened in writing action, suit, proceeding or claim by others that the Company or any of its subsidiaries infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others and neither the Company nor any of its subsidiaries has received any written notice of such claim; and (E) to the Company's knowledge, no employee of the Company or any of its subsidiaries is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or any of its subsidiaries or actions undertaken by the employee while employed with the Company or any of its subsidiaries, except as such violation would not reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole. "**Intellectual Property**" shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, domain names, technology, know-how and other intellectual property.

(x) (i) The Company and its subsidiaries use and have used any and all software and other materials distributed under a "free," "open source," or similar licensing model (including but not limited to the MIT License, Apache License, GNU General Public License, GNU Lesser General Public License and GNU Affero General Public License) ("**Open Source Software**") in compliance with all license terms applicable to such Open Source Software, except where such non-compliance would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole; and (ii) neither the Company nor any of its subsidiaries uses or distributes or has used or distributed any Open Source Software in any manner that requires or has required (A) the Company or any of its subsidiaries to permit reverse engineering of any software code or other technology owned by the Company or any of its subsidiaries or (B) any software code or other technology owned by the Company or any of its subsidiaries to be (1) disclosed or distributed in source code form, (2) licensed for the purpose of making derivative works or (3) redistributed at no charge, except where such permitted reverse engineering, source code disclosure, derivative work or free redistribution would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole.

(y) (i) The Company and each of its subsidiaries have complied and are presently in compliance with all internal and external privacy policies, contractual obligations, applicable industry standards, applicable laws, statutes, judgments, orders, rules and regulations of any court or arbitrator or other governmental or regulatory authority and any other applicable legal obligations, in each case, relating to the collection, use, transfer, import, export, storage, protection, disposal and disclosure by the Company or any of its subsidiaries of personal, personally identifiable, household, sensitive, confidential or regulated data ("**Data Security Obligations**"); (ii) the Company has not received any notification of or complaint regarding and is unaware of any other facts that, individually or in the aggregate, would reasonably indicate non-compliance with any Data Security Obligation; and (iii) there is no action, suit or proceeding by or before any court or governmental agency, authority or body pending or, to the Company's knowledge, threatened alleging non-compliance by the Company with any Data Security Obligation.

(z) (i) (A) There has been no security breach or other compromise of or relating to any of the Company's and its subsidiaries' information technology and computer systems, networks, hardware, software, data (including the data of their respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of them), equipment or technology ("**IT Systems and Data**") that would reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole, and (B) the Company and its subsidiaries have not been notified of, and have no knowledge of any event or condition that would reasonably be expected to result in any security breach, attack or compromise to their IT Systems and Data that would reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole, (ii) the Company and each of its subsidiaries have complied, and are presently in compliance with, in all material respects, all applicable laws, statutes or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority and all industry guidelines, standards, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification and (iii) the Company and each of its subsidiaries have implemented backup and disaster recovery technology reasonably consistent with industry standards and practice.

(aa) The Company and its subsidiaries possess, or qualify for applicable exemptions to, such valid and current registrations, listings, approvals, exemptions, clearances, licenses, certificates, authorizations or permits and supplements or amendments thereto issued or required by the appropriate state, federal or foreign regulatory agencies or bodies necessary to conduct their business (collectively, "**Permits**"), including, without limitation, all such Permits required by the United States Food and Drug Administration (the "**FDA**"), the United States Department of Health and Human Services ("**HHS**"), the United States Centers for Medicare & Medicaid Services ("**CMS**"), the European Medicines Agency ("**EMA**"), Health Canada or any other state, federal or foreign agencies or bodies engaged in the regulation of medical devices (including diagnostic products), drugs, biologics or biohazardous materials. All of the material Permits are valid and in full force and effect, the Company and its subsidiaries are in material compliance with the terms and conditions of all such Permits, and no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof, or results in any other material impairment of the rights of the holder of any material Permit. The Company and its subsidiaries have not received any written notice of proceedings relating to the revocation or modification of, or non-compliance with, any Permits, the lack of which would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole.

(bb) The Company and its subsidiaries and, to the Company's knowledge, its directors, employees and agents (while acting in such capacity) are and have been, since October 1, 2017, in material compliance with, all health care laws applicable to the Company, or any of its products or activities, including, but not limited to, the federal Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the Civil Monetary Penalties Law (42 U.S.C. Section 1320a-7a(a)), the civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal false statements law (42

U.S.C. Section 1320a-7b(a)), the Physician Payments Sunshine Act (42 U.S.C. Section 1320-7h), the health care fraud criminal provisions under HIPAA (as defined below), including 18 U.S.C. Sections 286, 287, 1347 and 1349, the exclusion laws (42 U.S.C. Section 1320a-7), the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.), the Public Health Service Act (42 U.S.C. Section 201 et seq.), Medicare (Title XVIII of the Social Security Act) and Medicaid (Title XIX of the Social Security Act), each as amended from time to time, the regulations promulgated pursuant to such laws, and any other state, federal or foreign law, accreditation standards, regulation, memorandum, opinion letter, or other issuance which imposes requirements on the manufacturing, development, testing, labeling, advertising, marketing or distribution of drugs, biologics and medical devices (including diagnostic products), kickbacks, patient or program charges, recordkeeping, claims process, documentation requirements, medical necessity, referrals, the hiring of employees or acquisition of services or supplies from those who have been excluded from government health care programs, quality, safety, privacy, security, licensure, accreditation or any other aspect of providing health care, medical devices or diagnostics products or services (collectively, "**Health Care Laws**"). Neither the Company nor any of its subsidiaries has received any written notification, correspondence or other communication, including notification of any pending or threatened claim, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority, including, without limitation, the FDA, the EMEA, Health Canada, the United States Federal Trade Commission, the United States Drug Enforcement Administration, CMS, HHS's Office of Inspector General, the United States Department of Justice and state Attorneys General or similar agencies of potential or actual non-compliance in any material respect by, or material liability of, the Company or any of its subsidiaries under any Health Care Laws. To the Company's knowledge, there are no facts or circumstances that would reasonably be expected to give rise to material liability of the Company or any of its subsidiaries under any Health Care Laws. The statements with respect to Health Care Laws and the Company's compliance therewith included in the Time of Sale Prospectus, the Registration Statement and in the Prospectus fairly summarize the matters therein described. Since October 1, 2017, the Company and its subsidiaries have filed, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Laws, and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and accurate on the date filed in all material respects (or were corrected or supplemented by a subsequent submission). Neither the Company nor any of its subsidiaries is a party to any corporate integrity agreements, monitoring agreements, deferred or non-prosecution agreements, consent decrees, settlement orders, or similar agreements with or imposed by any governmental or regulatory authority. Additionally, none of the Company, any of its subsidiaries or any of their respective employees, officers, directors, or, to the Company's knowledge, agents has, since October 1, 2017, been or is currently excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the Company's knowledge, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

(cc) The Company and its subsidiaries are, and since October 1, 2017, have been in material compliance with all applicable regulatory post-market reporting obligations under any Health Care Laws, including, without limitation, the FDA's adverse event reporting requirements at 21 CFR Parts 310, 314, 600, and 803, and, to the extent applicable, the respective counterparts thereof promulgated by governmental authorities in countries outside the United States.

(dd) Except as disclosed in the Registration Statement, the Time of Sale Prospectus and in the Prospectus, to the Company's knowledge, neither the Company nor any of its subsidiaries has had any product, clinical laboratory or manufacturing site (whether Company-owned or that of a third party manufacturer for the Company's products) subject to a governmental authority (including FDA) shutdown or import or export prohibition, or received any FDA Form 483 or other governmental authority notice of inspectional observations, "warning letters," "untitled letters," requests to make changes to the Company's or its subsidiaries' products, processes or operations, or similar correspondence or notice from the FDA or other governmental authority alleging or asserting material noncompliance with any applicable Health Care Laws. To the Company's knowledge, neither the FDA nor any other governmental authority is considering such action.

(ee) The Company and its subsidiaries are, and at all times prior hereto have been, in compliance in all material respects with all applicable state, federal, and international data privacy, security and consumer protection laws and regulations, including, without limitation, applicable requirements of the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, and regulations promulgated thereunder (collectively, "**HIPAA**"); and the Company and its subsidiaries have taken commercially reasonable actions to comply with, and have been and currently are in compliance in all material respects with, the European Union General Data Protection Regulation ("**GDPR**") (EU 2016/679) (collectively, the "**Privacy Laws**"). To the extent required by the Privacy Laws, the Company and its subsidiaries have in place and take commercially reasonable steps to comply in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data. "**Personal Data**" means (A) a natural person's name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver's license number, passport number, credit card number, bank information, or customer or account number; (B) any information which would qualify as "personally identifiable" information as applied by the Federal Trade Commission; (C) "Protected Health Information," as defined by HIPAA; (D) "personal data," as defined by GDPR; and (E) any other information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person's health or sexual orientation. The Company and its subsidiaries have, at all times prior hereto, made all material disclosures to users or customers required by applicable Privacy Laws, and none of such disclosures made or contained in any such disclosures have, to the knowledge of the Company, been inaccurate or in violation of any applicable Privacy Laws in any material respect. Neither the Company nor any subsidiary: (1) has received written notice of any actual or alleged liability, including, but not limited to security or data privacy breaches or other unauthorized or improper access to, use of, or destruction of Personal Data, under or relating to, or actual or alleged violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected; (2) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (3) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law.

(ff) (A) Except as disclosed in the Registration Statement, the Time of Sale Prospectus and in the Prospectus, to the Company's knowledge, there have been no recalls, field notifications, field corrections, market withdrawals or replacements, warnings, "dear doctor" letters, investigator notices, safety alerts or other notice of action relating to an alleged lack of safety, efficacy, or regulatory compliance of the Company's or any of its subsidiaries' products ("**Safety Notices**") and (B) to the Company's knowledge, there are no facts that would be reasonably likely to result in (1) a Safety Notice with respect to the Company's or any of its subsidiaries' products or services, (2) a change in labeling of any the Company's or any of its subsidiaries' respective products or services, or (3) a termination or suspension of marketing or testing of any the Company's or any of its subsidiaries' products or services.

(gg) The Company and each of its subsidiaries have filed all federal, state, local and foreign tax returns required to be filed through the date of this Agreement or have requested extensions thereof (except where the failure to file would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole) and have paid all taxes required to be paid thereon (except for cases in which the failure to file or pay would not, singly or in the aggregate, reasonably be expected to have a material adverse effect on the Company and its subsidiaries, taken as a whole, or, except as currently being contested in good faith and for which reserves required by generally accepted accounting principles ("**U.S. GAAP**") have been created in the financial statements of the Company), and no tax deficiency has been determined adversely to the Company or any of its subsidiaries which, singly or in the aggregate, has had (nor does the Company nor any of its subsidiaries have any notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company or its subsidiaries and which could reasonably be expected to have) a material adverse effect on the Company and its subsidiaries, taken as a whole.

(hh) The financial statements included or incorporated by reference in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus, together with the related schedules and notes thereto, comply as to form in all material respects with the applicable accounting requirements of the Securities Act and present fairly in all material respects the consolidated financial position of the Company and its subsidiaries as of the dates shown and its results of operations and cash flows for the periods shown, and such financial statements have been prepared in conformity with U.S. GAAP applied on a consistent basis throughout the periods covered thereby except as may be expressly stated in the related notes thereto and for any normal year-end adjustments in the Company's quarterly financial statements. The other financial information included in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby. The statistical, industry-related and market-related data included in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus are based on or derived from sources which the Company reasonably and in good faith believes are reliable and accurate and such data is consistent with the sources from which they are derived, in each case in all material respects.

(ii) Mayer Hoffman McCann P.C., who have certified certain financial statements of the Company and its subsidiaries and delivered its report with respect to the audited consolidated financial statements and schedules filed with the Commission as part of the Registration Statement and included in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus, is an independent registered public accounting firm with respect to the Company within the meaning of the Securities Act and the applicable rules and regulations thereunder adopted by the Commission and the Public Company Accounting Oversight Board (United States).

(jj) Except as disclosed in the Registration Statement, the Time of Sale Prospectus and in the Prospectus, the Company and each of its subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the required information in all material respects. Except as disclosed in the Registration Statement, the Time of Sale Prospectus and in the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (i) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (ii) no change in the Company's internal control over financial reporting that has materially adversely affected, or is reasonably likely to materially adversely affect, the Company's internal control over financial reporting.

(kk) The Company (i) has not alone engaged in any Testing-the-Waters Communication with any person other than Testing-the-Waters Communications with the consent of the Representatives with entities that are reasonably believed to be qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are reasonably believed to be accredited investors within the meaning of Rule 501 under the Securities Act and (ii) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act other than those listed on Schedule III hereto. "**Testing-the-Waters Communication**" means any communication with potential investors undertaken in reliance on Section 5(d) or Rule 163B of the Securities Act.

(ll) As of the time of each sale of the Shares in connection with the offering when the Prospectus is not yet available to prospective purchasers, none of (A) the Time of Sale Prospectus, (B) any free writing prospectus, when considered together with the Time of Sale Prospectus, and (C) any individual Testing-the-Waters Communication, when considered together with the Time of Sale Prospectus, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(mm) Neither the Company nor any of its subsidiaries has any securities rated by any "nationally recognized statistical rating organization," as such term is defined in Section 3(a)(62) of the Exchange Act."

(nn) The Company is in compliance with all applicable provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder.

(oo) The Company maintains disclosure controls and procedures (as defined in Rules 13a-14 and 15d-14 under the Exchange Act) and such controls and procedures are effective in ensuring that material information relating to the Company, including its subsidiaries, is made known to the principal executive officer and the principal financial officer. To the extent applicable to the Registration Statement, in the Time of Sale Prospectus and in the Prospectus, the Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the Time of Sale Prospectus and in the Prospectus.

(pp) (A) To the knowledge of the Company, no “prohibited transaction” as defined under Section 406 of ERISA or Section 4975 of the Code and not exempt under ERISA Section 408 and the regulations and published interpretations thereunder has occurred with respect to any Employee Benefit Plan. No Employee Benefit Plan subject to Part 3 of Subtitle B of Title I of ERISA, Title IV of ERISA, or Section 412 of the Code or any “multiemployer plan” as defined in Section 3(37) of ERISA or any multiple employer plan for which the Company or any ERISA Affiliate has incurred or would reasonably be expected to incur a liability under Section 4063 or 4064 of ERISA. No Employee Benefit Plan provides retiree health, life insurance, or other retiree welfare benefits except as may be required by the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, or similar state law. Each Employee Benefit Plan is and has been operated in material compliance with its terms and all applicable laws, including but not limited to ERISA and the Code and, to the knowledge of the Company, no event has occurred (including a “reportable event” as such term is defined in Section 4043 of ERISA) and no condition exists that would subject the Company or any ERISA Affiliate to any material tax, fine, lien, penalty or liability imposed by ERISA, the Code or other applicable law. Each Employee Benefit Plan intended to be qualified under Code Section 401(a) is so qualified and has a favorable determination or opinion letter from the IRS upon which it can rely, and any such determination or opinion letter remains in effect and has not been revoked; to the knowledge of the Company, nothing has occurred since the date of any such determination or opinion letter that is reasonably likely to affect such qualification; (B) the Company does not have any Foreign Benefit Plans, (C) the Company does not have any obligations under any collective bargaining agreement with any union and, to the knowledge of the Company, no organization efforts are underway with respect to Company employees. As used in this Agreement, “**Code**” means the Internal Revenue Code of 1986, as amended; “**Employee Benefit Plan**” means any “employee benefit plan” within the meaning of Section 3(3) of ERISA, including, without limitation, all stock purchase, stock option, stock-based severance, employment, change-in-control, medical, disability, fringe benefit, bonus, incentive, deferred compensation, employee loan and all other employee benefit plans, agreements, programs, policies or other arrangements, whether or not subject to ERISA, under which (1) any current or former employee, director or independent contractor of the Company or its subsidiaries has any present or future right to benefits and which are contributed to, sponsored by or maintained by the Company or any of its respective subsidiaries or (2) the Company or any of its subsidiaries has had or has any present or future obligation or liability; “**ERISA**” means the Employee Retirement Income Security Act of 1974, as amended; “**ERISA Affiliate**” means any member of the company’s controlled group as defined in Code Section 414(b), (c), (m) or (o); and “**Foreign Benefit Plan**” means any Employee Benefit Plan established, maintained or contributed to outside of the United States or which covers any employee working or residing outside of the United States.

(qq) No labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, that would reasonably be expected to result in a material adverse effect on the Company and its subsidiaries, taken as a whole.

(rr) No forward-looking statement (within the meaning of Section 27A of the Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Prospectus or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

2. *Agreements to Sell and Purchase.* The Company hereby agrees to sell to the several Underwriters, and each Underwriter, upon the basis of the representations and warranties herein contained, but subject to the terms and conditions hereinafter stated, agrees, severally and not jointly, to purchase from the Company the respective numbers of Firm Shares set forth in Schedule I hereto opposite its name at \$8.225 a share (the "**Purchase Price**").

On the basis of the representations and warranties contained in this Agreement, and subject to its terms and conditions, the Company agrees to sell to the Underwriters the Additional Shares, and the Underwriters shall have the right to purchase, severally and not jointly, up to 1,714,285 Additional Shares at the Purchase Price, provided, however, that the amount paid by the Underwriters for any Additional Shares shall be reduced by an amount per share equal to any dividends declared by the Company and payable on the Firm Shares but not payable on such Additional Shares. The Representatives may exercise this right on behalf of the Underwriters in whole or from time to time in part by giving written notice not later than 30 days after the date of this Agreement. Any exercise notice shall specify the number of Additional Shares to be purchased by the Underwriters and the date on which such shares are to be purchased. Each purchase date must be at least one business day after the written notice is given and may not be earlier than the closing date for the Firm Shares or later than ten business days after the date of such notice. Additional Shares may be purchased as provided in Section 4 hereof solely for the purpose of covering sales of shares in excess of the number of the Firm Shares. On each day, if any, that Additional Shares are to be purchased (an "**Option Closing Date**"), each Underwriter agrees, severally and not jointly, to purchase the number of Additional Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Additional Shares to be purchased on such Option Closing Date as the number of Firm Shares set forth in Schedule I hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

3. *Terms of Public Offering.* The Company is advised by the Representatives that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after this Agreement has become effective and as in the Representatives' judgment is advisable. The Company is further advised by the Representatives that the Shares are to be offered to the public initially at \$8.75 a share (the "**Public Offering Price**") and to certain dealers selected by Morgan Stanley at a price that represents a concession not in excess of \$0.315 a share under the Public Offering Price.

4. *Payment and Delivery.* Payment for the Firm Shares shall be made to the Company in Federal or other funds immediately available in New York City against delivery of such Firm Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on October 16, 2020, or at such other time on the same or such other date, not later than October 23, 2020, as shall be designated in writing by the Representatives. The time and date of such payment are hereinafter referred to as the “**Closing Date.**”

Payment for any Additional Shares shall be made to the Company in Federal or other funds immediately available in New York City against delivery of such Additional Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on the date specified in the corresponding notice described in Section 2 or at such other time on the same or on such other date, in any event not later than November 26, 2020, as shall be designated in writing by the Representatives.

The Firm Shares and Additional Shares shall be registered in such names and in such denominations as the Representatives shall request in writing not later than one full business day prior to the Closing Date or the applicable Option Closing Date, as the case may be. The Firm Shares and Additional Shares shall be delivered to the Representatives on the Closing Date or an Option Closing Date, as the case may be, for the respective accounts of the several Underwriters, with any transfer taxes payable in connection with the transfer of the Shares to the Underwriters duly paid, against payment of the Purchase Price therefor.

5. *Conditions to the Underwriters’ Obligations.* The obligations of the Company to sell the Shares to the Underwriters and the several obligations of the Underwriters to purchase and pay for the Shares on the Closing Date are subject to the following conditions:

(a) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date:

(i) no order suspending the effectiveness of the Registration Statement shall be in effect, and no proceeding for such purpose or pursuant to Section 8A under the Securities Act shall be pending before or threatened by the Commission; and

(ii) there shall not have occurred any change, or any development involving a prospective change, in the condition, financial or otherwise, or in the earnings, business, operations or prospects of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus that, in the judgment of the Representatives, is material and adverse and that makes it, in the judgment of the Representatives, impracticable to market the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus.

(b) The Underwriters shall have received on the Closing Date: (i) a certificate, dated the Closing Date and signed by an executive officer of the Company, to the effect set forth in Sections 5(a)(i) and 5(a)(ii) above and to the effect that the representations and warranties of the Company contained in this Agreement are true and correct as of the Closing Date and that the Company has complied with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied hereunder on or before the Closing Date and (ii) a certificate signed by the Company’s Chief Financial Officer, dated the respected dates of delivery thereof and addressed to the Representatives, in form and substance reasonably satisfactory to the Representatives.

The officer signing and delivering such certificate on behalf of the Company may rely upon his or her knowledge as to proceedings threatened.

(c) The Underwriters shall have received on the Closing Date an opinion and a negative assurance letter of Dentons US LLP, outside counsel for the Company, dated the Closing Date, in each case in form and substance reasonably satisfactory to the Representatives, together with signed or reproduced copies of such letter for each of the other Underwriters:

(d) The Underwriters shall have received on the Closing Date an opinion of Honigman LLP, intellectual property counsel for the Company, dated the Closing Date, in form and substance reasonably satisfactory to the Representatives, together with signed or reproduced copies of such letter for each of the other Underwriters.

(e) The Underwriters shall have received on the Closing Date an opinion and a negative assurance letter of Latham & Watkins LLP, counsel for the Underwriters, dated the Closing Date, in the form mutually agreed upon between the Representatives and Latham & Watkins LLP.

With respect to the negative assurance letter to be delivered pursuant to Section 5(c) and 5(e) above, Dentons US LLP and Latham & Watkins LLP may state that their opinions and beliefs are based upon their participation in the preparation of the Registration Statement, the Time of Sale Prospectus, the Prospectus and any amendments or supplements thereto and review and discussion of the contents thereof, but are without independent check or verification, except as specified.

(f) The Underwriters shall have received, on each of the date hereof and the Closing Date, a letter dated the date hereof or the Closing Date, as the case may be, in form and substance satisfactory to the Underwriters, from Mayer Hoffman McCann P.C., independent public accountants, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus; *provided* that the letter delivered on the Closing Date shall use a "cut-off date" not earlier than the date hereof.

(g) The "lock-up" agreements, each substantially in the form of Exhibit A hereto, between the Representatives and certain shareholders, officers and directors of the Company relating to restrictions on sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to the Representatives on or before the date hereof, shall be in full force and effect on the Closing Date.

(h) The several obligations of the Underwriters to purchase Additional Shares hereunder are subject to the delivery to the Representatives on the applicable Option Closing Date of the following:

(i) a certificate, dated the Option Closing Date and signed by an executive officer of the Company, confirming that the certificate delivered on the Closing Date pursuant to Section 5(b)(i) hereof remains true and correct as of such Option Closing Date and a certificate, dated the Option Closing Date and signed by the Chief Financial Officer of the Company, confirming that the certificate delivered on the Closing Date pursuant to Section 5(b)(ii) hereof remains true and correct as of such Option Closing Date;

(ii) an opinion and negative assurance letter of Dentons US LLP, outside counsel for the Company, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(c) hereof;

(iii) an opinion of Honigman LLP, intellectual property counsel for the Company, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(d) hereof

(iv) an opinion and negative assurance letter of Latham & Watkins LLP, counsel for the Underwriters, dated the Option Closing Date, relating to the Additional Shares to be purchased on such Option Closing Date and otherwise to the same effect as the opinion required by Section 5(e) hereof;

(v) a letter dated the Option Closing Date, in form and substance satisfactory to the Underwriters, from Mayer Hoffman McCann P.C., independent public accountants, substantially in the same form and substance as the letter furnished to the Underwriters pursuant to Section 5(f) hereof; *provided* that the letter delivered on the Option Closing Date shall use a “cut-off date” not earlier than two business days prior to such Option Closing Date; and

(vi) such other documents as the Representatives may reasonably request with respect to the good standing of the Company, the due authorization and issuance of the Additional Shares to be sold on such Option Closing Date and other matters related to the issuance of such Additional Shares.

6. *Covenants of the Company.* The Company covenants with each Underwriter as follows:

(a) To furnish to the Representatives, without charge, six signed copies of the Registration Statement (including exhibits thereto and documents incorporated by reference) and for delivery to each other Underwriter a conformed copy of the Registration Statement (without exhibits thereto but including documents incorporated by reference) and to furnish to the Representatives in New York City, without charge, prior to 10:00 a.m. New York City time on the business day next succeeding the date of this Agreement and during the period mentioned in Section 6(e) or 6(f) below, as many copies of the Time of Sale Prospectus, the Prospectus, any documents incorporated by reference therein and any supplements and amendments thereto or to the Registration Statement as the Representatives may reasonably request.

(b) Before amending or supplementing the Registration Statement, the Time of Sale Prospectus or the Prospectus, to furnish to the Representatives a copy of each such proposed amendment or supplement and not to file any such proposed amendment or supplement to which the Representatives reasonably object, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) To furnish to the Representatives a copy of each proposed free writing prospectus to be prepared by or on behalf of, used by, or referred to by the Company and not to use or refer to any proposed free writing prospectus to which the Representatives reasonably object.

(d) Not to take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of the Underwriter that the Underwriter otherwise would not have been required to file thereunder.

(e) If the Time of Sale Prospectus is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus in order to make the statements therein, in the light of the circumstances, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement then on file, or if, in the reasonable opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not, in the light of the circumstances when the Time of Sale Prospectus is delivered to a prospective purchaser, be misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) If, during such period after the first date of the public offering of the Shares as in the opinion of counsel for the Underwriters the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is required by law to be delivered in connection with sales by an Underwriter or dealer, any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, not misleading, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to the dealers (whose names and addresses the Representatives will furnish to the Company) to which Shares may have been sold by the Representatives on

behalf of the Underwriters and to any other dealers upon request, either amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law.

(g) To endeavor to qualify the Shares for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Underwriters shall reasonably request, provided that the Company shall not be required to (i) qualify as a foreign corporation or other entity or as a dealer in securities in any such jurisdiction where it would not otherwise be required to so qualify, (ii) file any general consent to service of process in any such jurisdiction or (iii) subject itself to taxation in any such jurisdiction if it is not otherwise so subject.

(h) To make generally available to the Company's security holders and to the Representatives as soon as practicable an earnings statement covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement which shall satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(i) Whether or not the transactions contemplated in this Agreement are consummated or this Agreement is terminated, to pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including: (i) the fees, disbursements and expenses of the Company's counsel and the Company's accountants in connection with the registration and delivery of the Shares under the Securities Act and all other fees or expenses in connection with the preparation and filing of the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company and amendments and supplements to any of the foregoing, including all printing costs associated therewith, and the mailing and delivering of copies thereof to the Underwriters and dealers, in the quantities hereinabove specified, (ii) all costs and expenses related to the transfer and delivery of the Shares to the Underwriters, including any transfer or other taxes payable thereon, (iii) the cost of printing or producing any Blue Sky or Legal Investment memorandum in connection with the offer and sale of the Shares under state securities laws and all expenses in connection with the qualification of the Shares for offer and sale under state securities laws as provided in Section 6(g) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky or Legal Investment memorandum (such fees and expenses of counsel in an aggregate amount not to exceed \$5,000), (iv) all filing fees and the reasonable fees and disbursements of counsel to the Underwriters incurred in connection with the review and qualification of the offering of the Shares by the Financial Industry Regulatory Authority (*provided*, that the amount payable by the Company with respect to fees and disbursements of counsel for the Underwriters pursuant to subsections (iii) and (iv) shall not exceed \$30,000), (v) all costs and expenses incident to listing the Shares on Nasdaq Global Select Market, (vi) the cost of printing certificates representing the Shares, (vii) the costs and charges of any transfer agent, registrar or depository, (viii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the offering of the Shares (with the Underwriters agreeing to pay all costs and

expenses related to their participation in investor presentations or any “road show” undertaken in connection with the marketing of the offering of the Shares), including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and 50% of ground transportation costs and 50% of the cost of any aircraft chartered in connection with the road show (the remaining 50% of the cost of such ground transportation and aircraft to be paid by the Underwriters), (ix) the document production charges and expenses associated with printing this Agreement and (x) all other costs and expenses incident to the performance of the obligations of the Company hereunder for which provision is not otherwise made in this Section. It is understood, however, that except as provided in this Section, Section 8 entitled “Indemnity and Contribution” and the last paragraph of Section 10 below, the Underwriters will pay all of their costs and expenses, including fees and disbursements of their counsel, stock transfer taxes payable on resale of any of the Shares by them and any advertising expenses connected with any offers they may make.

(j) If at any time following the distribution of any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act there occurred or occurs an event or development as a result of which such Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representatives and will promptly amend or supplement, at its own expense, such Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(k) The Company will deliver to each Underwriter (or its agent), on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as each Underwriter may reasonably request in connection with the verification of the foregoing Certification.

The Company also covenants with each Underwriter that, without the prior written consent of the Representatives on behalf of the Underwriters, it will not, and will not publicly disclose an intention to, during the period ending 90 days after the date of the Prospectus (the “**Restricted Period**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause 1 or 2 above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (3) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock. The restrictions contained in the foregoing

sentence shall not apply to (A) the Shares to be sold hereunder, (B) the issuance by the Company of shares of Common Stock upon the exercise of an option or warrant or the conversion of a security outstanding on the date hereof as described in each of the Time of Sale Prospectus and Prospectus, (C) grants of options, restricted stock, restricted stock units or other equity awards and the issuance of Common Stock or securities convertible into or exercisable for Common Stock (whether upon the exercise of stock options or otherwise) to employees, officers, directors, advisors, or consultants of the Company pursuant to the terms of a plan in effect on the date hereof and as described in each of the Time of Sale Prospectus and Prospectus, (D) the filing of a registration statement on Form S-8 to register Common Stock issuable pursuant to any employee benefit plans, qualified stock option plans or other employee compensation plans, described in the Time of Sale Prospectus, (E) Common Stock or any securities convertible into, or exercisable or exchangeable for, Common Stock, or the entry into an agreement to issue Common Stock or any securities convertible into, or exercisable or exchangeable for, Common Stock, in connection with any merger, joint venture, strategic alliances, commercial or other collaborative transaction or the acquisition or license of the business, property, technology or other assets of another individual or entity or the assumption of an employee benefit plan in connection with a merger or acquisition (including the filing of a registration statement on Form S-4 or other appropriate form with respect thereto), *provided* that the aggregate number of shares of Common Stock or securities convertible into, exercisable or exchangeable for Common Stock (on an as-converted, as-exercised or as-exchanged basis, as the case may be) that the Company may sell or issue pursuant to this clause (E) shall not exceed 5% of the total number of shares of the Company's Common Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement (determined on a fully diluted basis and as adjusted for stock splits, stock dividends and other similar events after the date hereof); and *provided further*, that the recipients of any shares of Common Stock issued pursuant to this clause (E) during the Restricted Period shall enter into an agreement substantially in the form of Exhibit A hereto on or prior to such issuance, or (F) facilitating the establishment of a trading plan on behalf of a shareholder, officer or director of the Company pursuant to Rule 10b5-1 under the Exchange Act, for the transfer of shares of Common Stock, *provided* that (i) such plan does not provide for the transfer of Common Stock during the Restricted Period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by the Company regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of Common Stock may be made under such plan during the Restricted Period.

7. *Covenants of the Underwriters.* Each Underwriter, severally and not jointly, covenants with the Company not to take any action that would result in the Company being required to file with the Commission under Rule 433(d) a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not be required to be filed by the Company thereunder, but for the action of the Underwriter.

8. *Indemnity and Contribution.* (a) The Company agrees to indemnify and hold harmless each Underwriter, each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act and each affiliate of any Underwriter within the meaning of Rule 405 under the Securities Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any

such action or claim) that arise out of, or are based upon, any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus or any amendment or supplement thereto, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, any “road show” as defined in Rule 433(h) under the Securities Act (a “road show”), the Prospectus or any amendment or supplement thereto, or any Testing-the-Waters Communication, or arise out of, or are based upon, any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities arise out of, or are based upon, any such untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information furnished by the Underwriters through the Representatives consists of the information described as such in paragraph (b) below.

(b) Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who sign the Registration Statement and each person, if any, who controls the Company within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the foregoing indemnity from the Company to such Underwriter, but only with reference to information relating to such Underwriter furnished to the Company in writing by such Underwriter through the Representatives expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus, road show, or the Prospectus or any amendment or supplement thereto, provided that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of each Underwriter: the third and twelfth paragraphs under the caption “Underwriters.”

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to Section 8(a) or 8(b), such person (the “**indemnified party**”) shall promptly notify the person against whom such indemnity may be sought (the “**indemnifying party**”) in writing and the indemnifying party, upon request of the indemnified party, shall retain counsel reasonably satisfactory to the indemnified party to represent the indemnified party and any others the indemnifying party may designate in such proceeding and shall pay the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. It is understood that the indemnifying party shall not, in respect of the legal expenses of any indemnified party in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all such indemnified parties and that all such fees and expenses shall be reimbursed as they are incurred. Such firm shall be

designated in writing by the Representatives, in the case of parties indemnified pursuant to Section 8(a), and by the Company, in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by the second and third sentences of this paragraph, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened proceeding in respect of which any indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such proceeding.

(d) To the extent the indemnification provided for in Section 8(a) or 8(b) is unavailable to an indemnified party or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each indemnifying party under such paragraph, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand from the offering of the Shares or (ii) if the allocation provided by clause 8(d)(i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause 8(d)(i) above but also the relative fault of the Company on the one hand and of the Underwriters on the other hand in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other hand in connection with the offering of the Shares shall be deemed to be in the same respective proportions as the net proceeds from the offering of the Shares (before deducting expenses) received by the Company and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover of the Prospectus, bear to the aggregate Public Offering Price of the Shares. The relative fault of the Company on the one hand and the Underwriters on the other hand shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Underwriters' respective obligations to contribute pursuant to this Section 8 are several in proportion to the respective number of Shares they have purchased hereunder, and not joint.

(e) The Company and the Underwriters agree that it would not be just or equitable if contribution pursuant to this Section 8 were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages and liabilities referred to in Section 8(d) shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8, no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The remedies provided for in this Section 8 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

(f) The indemnity and contribution provisions contained in this Section 8 and the representations, warranties and other statements of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Underwriter, any person controlling any Underwriter or any affiliate of any Underwriter or by or on behalf of the Company, its officers or directors or any person controlling the Company and (iii) acceptance of and payment for any of the Shares.

9. *Termination.* The Underwriters may terminate this Agreement by notice given by the Representatives to the Company, if after the execution and delivery of this Agreement and prior to or on the Closing Date or any Option Closing Date, as the case may be, (i) trading generally shall have been suspended or materially limited on, or by, as the case may be, either of the New York Stock Exchange or the Nasdaq Global Select Market (ii) trading of any securities of the Company shall have been suspended on any exchange or in any over-the-counter market, (iii) a material disruption in securities settlement, payment or clearance services in the United States shall have occurred, (iv) any moratorium on commercial banking activities shall have been declared by Federal or New York State authorities or (v) there shall have occurred any outbreak or escalation of hostilities, or any change in financial markets or any calamity or crisis that, in the judgment of the Representatives, is material and adverse and which, singly or together with any other event specified in this clause (v), makes it, in the judgment of the Representatives, impracticable or inadvisable to proceed with the offer, sale or delivery of the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus or the Prospectus.

10. *Effectiveness; Defaulting Underwriters.* This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

If, on the Closing Date or an Option Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares that it has or they have agreed to purchase hereunder on such date, and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall

be obligated severally in the proportions that the number of Firm Shares set forth opposite their respective names in Schedule I bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as the Representatives may specify, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date; *provided* that in no event shall the number of Shares that any Underwriter has agreed to purchase pursuant to this Agreement be increased pursuant to this Section 10 by an amount in excess of one-ninth of such number of Shares without the written consent of such Underwriter. If, on the Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Firm Shares and the aggregate number of Firm Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Firm Shares to be purchased on such date, and arrangements satisfactory to the Representatives and the Company for the purchase of such Firm Shares are not made within 36 hours after such default, this Agreement shall terminate without liability on the part of any non-defaulting Underwriter or the Company. In any such case either the Representatives or the Company shall have the right to postpone the Closing Date, but in no event for longer than seven days, in order that the required changes, if any, in the Registration Statement, in the Time of Sale Prospectus, in the Prospectus or in any other documents or arrangements may be effected. If, on an Option Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Additional Shares and the aggregate number of Additional Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Additional Shares to be purchased on such Option Closing Date, the non-defaulting Underwriters shall have the option to (i) terminate their obligation hereunder to purchase the Additional Shares to be sold on such Option Closing Date or (ii) purchase not less than the number of Additional Shares that such non-defaulting Underwriters would have been obligated to purchase in the absence of such default. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

If this Agreement shall be terminated by the Underwriters, or any of them, because of any failure or refusal on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, or if for any reason the Company shall be unable to perform its obligations under this Agreement, the Company will reimburse the Underwriters or such Underwriters as have so terminated this Agreement with respect to themselves, severally, for all out-of-pocket expenses (including the reasonable fees and disbursements of their counsel) reasonably incurred by such Underwriters in connection with this Agreement or the offering contemplated hereunder.

11. *Entire Agreement.* (a) This Agreement, together with any contemporaneous written agreements and any prior written agreements (to the extent not superseded by this Agreement) that relate to the offering of the Shares, represents the entire agreement between the Company and the Underwriters with respect to the preparation of any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, the conduct of the offering, and the purchase and sale of the Shares.

(b) The Company acknowledges that in connection with the offering of the Shares: (i) the Underwriters have acted at arm's length, are not agents of, and owe no fiduciary duties to, the Company or any other person, (ii) the Underwriters owe the Company only those duties and obligations set forth in this Agreement, any contemporaneous written agreements and prior

written agreements (to the extent not superseded by this Agreement), if any, (iii) the Underwriters may have interests that differ from those of the Company, and (iv) none of the activities of the Underwriters in connection with the transactions contemplated herein constitutes a recommendation, investment advice, or solicitation of any action by the Underwriters with respect to any entity or natural person. The Company waives to the full extent permitted by applicable law any claims it may have against the Underwriters arising from an alleged breach of fiduciary duty in connection with the offering of the Shares.

12. *Recognition of the U.S. Special Resolution Regimes.* (a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Section a “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k). “**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b). “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable. “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

13. *Counterparts.* This Agreement may be signed in two or more counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal E-SIGN Act of 2000, e.g., [www.docusign.com](http://www.docusign.com) or [www.echosign.com](http://www.echosign.com)) or other transmission method of any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

14. *Applicable Law.* This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York.

15. *Headings.* The headings of the sections of this Agreement have been inserted for convenience of reference only and shall not be deemed a part of this Agreement.

16. *Notices.* All communications hereunder shall be in writing and effective only upon receipt and if to the Underwriters shall be delivered, mailed or sent to Morgan Stanley & Co. LLC, 1585 Broadway, New York, New York 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department, and Cowen and Company, LLC, 599 Lexington Avenue, 25th Floor, New York, New York 10022, Attention: Head of Equity Capital Markets, Fax: 646-562-1249, with a copy to the General Counsel, Fax: 646-562-1130, with a copy to Latham Watkins LLP, 885 Third Avenue, New York, New York 10022, Attention: Michael Benjamin and Nathan Ajiashvili; and if to the Company shall be delivered, mailed or sent to Alphatec Holdings, Inc., 5818 El Camino Real, Carlsbad, California 92008, Attention: Tyson Marshall, Associate General Counsel, email: tmarshall@atecspine.com with a copy to Durham Jones & Pinegar, P.C., 192 E. 200 N., Third Floor, St. George, Utah 84770, Attention: Joshua E. Little, email: jlittle@djplaw.com.

*[Signature Pages Follow]*

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Very truly yours,

ALPHATEC HOLDINGS, INC.

By: /s/ JEFFREY G. BLACK

Name: Jeffrey G. Black

Title: Chief Financial Officer

[Signature Page to Underwriting Agreement]

Accepted as of the date hereof

MORGAN STANLEY & CO. LLC  
COWEN AND COMPANY, LLC

Acting severally on behalf of themselves and the several  
Underwriters named in Schedule I hereto.

By: MORGAN STANLEY & CO. LLC

By: /s/ JONATHAN GUSHIND

Name: Jonathan Gushind  
Title: Executive Director

By: COWEN AND COMPANY, LLC

By: /s/ BILL FOLLIS

Name: Bill Follis  
Title: Managing Director

[Signature Page to Underwriting Agreement]

<u>Underwriter</u>	<u>Number of Firm Shares To Be Purchased</u>
Morgan Stanley & Co. LLC	5,142,858
Cowen and Company, LLC	3,714,285
Canaccord Genuity LLC	1,714,285
Lake Street Capital Markets, LLC	571,427
Northland Securities, Inc.	285,715
Total:	<u>11,428,570</u>

**Time of Sale Prospectus**

1. Preliminary Prospectus issued October 13, 2020
2. Free writing prospectuses filed by the Company under Rule 433(d) of the Securities Act:  
None.
3. Pricing information:  
Number of Firm shares purchased by the Underwriters from the Company: 11,428,570  
Number of Additional Shares to be sold by the Company at the option of the Underwriters: 1,714,285  
Initial price per share to the public: \$8.75

**Written Testing-the-Waters Communications**

1. Investor Presentation dated October 2020.

III-1

## FORM OF LOCK-UP AGREEMENT

\_\_\_\_\_, 2020

Morgan Stanley & Co. LLC  
Cowen and Company, LLC

c/o Morgan Stanley & Co. LLC  
1585 Broadway  
New York, New York 10036

c/o Cowen and Company, LLC  
599 Lexington Avenue  
New York, New York 10022

Ladies and Gentlemen:

The undersigned understands that Morgan Stanley & Co. LLC (“**Morgan Stanley**”) and Cowen and Company, LLC (“**Cowen**”) propose to enter into an Underwriting Agreement (the “**Underwriting Agreement**”) with Alphatec Holdings, Inc., a Delaware corporation (the “**Company**”), providing for the public offering (the “**Public Offering**”) by the several Underwriters, including the Representatives (the “**Underwriters**”), of [ ● ] shares (the “**Shares**”) of the common stock, \$0.0001 par value of the Company (the “**Common Stock**”).

To induce the Underwriters that may participate in the Public Offering to continue their efforts in connection with the Public Offering, the undersigned hereby agrees that, without the prior written consent of the Representatives on behalf of the Underwriters, it will not, and will not publicly disclose an intention to, during the period commencing on the date hereof and ending 90 days after the date of the final prospectus (the “**Restricted Period**”) relating to the Public Offering (the “**Prospectus**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock beneficially owned (as such term is used in Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), by the undersigned or any other securities so owned convertible into or exercisable or exchangeable for Common Stock or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock so owned, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing sentence shall not apply to (a) transactions relating to shares of Common Stock or other securities acquired in open market transactions after the completion of the Public Offering, *provided* that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales

of Common Stock or other securities acquired in such open market transactions, (b) transfers of shares of Common Stock or any security convertible into Common Stock (i) as a bona fide gift, (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, (iii) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (1) transfers to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned or (2) distributions of shares of Common Stock or any security convertible into or exercisable for Common Stock to limited partners, limited liability company members or stockholders of the undersigned, (iv) if the undersigned is a trust, transfers to the beneficiary of such trust, or (v) transfers by testate succession or intestate succession; *provided* that in the case of any transfer or distribution pursuant to clause (b), (x) such transfer shall not involve a disposition for value, (y) each donee or distributee shall sign and deliver a lock-up agreement substantially in the form of this agreement and (z) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of Common Stock, shall be required or shall be voluntarily made in connection with such transfer during the Restricted Period; *provided further* that the preceding conditions (y) and (z) shall no longer apply to transfers pursuant to clause (b)(iii)(2) above beginning 40 days after the date of the final prospectus relating to the Public Offering]<sup>1</sup>, or (c) (i) the exercise of stock options granted pursuant to the Company's equity incentive plans described in the Time of Sale Prospectus or the Prospectus and outstanding as of the date of the Prospectus; *provided* (x) that it shall apply to any of the undersigned's Common Stock issued upon such exercise (y) any filing under Section 16 of the Exchange Act made during the Restricted Period shall clearly indicate that (A) the filing relates to the circumstances described in this clause (c)(i) and (B) no Common Stock was sold by the undersigned and (z) the undersigned does not otherwise voluntarily effect any public filing or report regarding such sales or transfers during the Restricted Period, (ii) the establishment of any contract, instruction or plan (a "**Plan**") that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) under the Exchange Act; *provided* that no sales of the undersigned's Common Stock shall be made pursuant to such a Plan prior to the expiration of the Restricted Period, and such a Plan may only be established if no public announcement of the establishment or existence thereof and no filing with the Securities and Exchange Commission or other regulatory authority in respect thereof or transactions thereunder or contemplated thereby, by the undersigned, the Company or any other person, shall be required, and no such announcement or filing is made voluntarily, by the undersigned, the Company or any other person, prior to the expiration of the Restricted Period or (iii) sales pursuant to the terms of a Plan existing on the date hereof; *provided* that (x) any filing under Section 16 of the Exchange Act made during the Restricted Period shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described above and (y) the undersigned does not otherwise voluntarily effect any public filing or report regarding such sales or transfers during the Restricted Period.

The undersigned understands that the Company and the Underwriters are relying upon this agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors and assigns.

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<sup>1</sup> NTD: To be included in the lock-up agreement for Tullis Dickerson Capital Focus III, LP only.

The undersigned acknowledges and agrees that the Underwriters have not provided any recommendation or investment advice nor have the Underwriters solicited any action from the undersigned with respect to the Public Offering of the Shares and the undersigned has consulted its own legal, accounting, financial, regulatory and tax advisors to the extent deemed appropriate. The undersigned further acknowledges and agrees that, although the Underwriters may provide certain Regulation Best Interest and Form CRS disclosures or other related documentation to it in connection with the Public Offering, the Underwriters are not making a recommendation to it to participate in the Public Offering or sell any Shares at the price determined in the Public Offering, and nothing set forth in such disclosures or documentation is intended to suggest that any Underwriter is making such a recommendation.

Whether or not the Public Offering actually occurs depends on a number of factors, including market conditions. Any Public Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Underwriters.

The undersigned understands that the undersigned shall be released from all obligations under this Agreement if (i) the Company notifies the Representatives in writing that it does not intend to proceed with the Public Offering, (ii) termination of the Underwriting Agreement prior to payment for and delivery of the Common Stock to be sold thereunder, or (iii) the Public Offering is not completed by November 30, 2020.

This agreement shall be governed by and construed in accordance with the laws of the State of New York.

Very truly yours,

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(Name)

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(Address)

October 13, 2020

Alphatec Holdings, Inc.  
5818 El Camino Real  
Carlsbad, CA 92008

Re: Alphatec Holdings, Inc.—Registration Statement on Form S-3

Ladies and Gentlemen:

In our capacity as counsel to Alphatec Holdings, Inc., a corporation organized under the laws of the State of Delaware (the “Company”), we have been asked to render this opinion in connection with a registration statement on Form S-3 (File No. 333-241677) (the “Registration Statement”), which Registration Statement the Company initially filed with the Securities and Exchange Commission (the “Commission”) on August 6, 2020 and which the Commission declared effective on August 18, 2020, as supplemented by the prospectus supplement filed pursuant to Rule 424(b)(5) of the Securities Act of 1933, as amended (the “Securities Act”), dated October 13, 2020 (the “Prospectus Supplement”), under which up to 13,142,855 shares (the “Shares”) of Company common stock, par value \$0.0001 per share, are being sold by the Company pursuant to the Underwriting Agreement, dated October 13, 2020, between the Company and the underwriters named therein. The Shares include an option granted to the underwriters of the offering to purchase up to an additional 1,714,285 Shares.

We are delivering this opinion to you at your request in accordance with the requirements of Item 16 of Form S-3 and Item 601(b)(5) of Regulation S-K under the Act.

In connection with rendering this opinion, we have examined originals, certified copies or copies otherwise identified as being true copies of the following: (i) the Company’s amended and restated certificate of incorporation, (ii) the Company’s restated bylaws, (iii) the Registration Statement, including the prospectus contained therein (the “Base Prospectus”), (iv) the Prospectus Supplement (the Base Prospectus and the Prospectus Supplement are collectively referred to herein as the “Prospectus”), (v) corporate proceedings of the Company relating to the Shares and (vi) such other instruments and documents as we have deemed relevant under the circumstances.

In making the aforesaid examinations, we have assumed the genuineness and authenticity of all documents examined by us and all signatures thereon, and the conformity to originals of all copies of all documents examined by us.

Based on the foregoing, and in reliance thereon, and subject to the qualifications, limitations and exceptions stated herein, we are of the opinion that the Shares have been duly authorized and, when issued and delivered by the Company against due payment therefor in accordance with the terms set forth in the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the laws of the State of Delaware (excluding local laws) and the federal law of the United States of America.

We hereby consent to the use of our opinion as Exhibit 5.1 to the Registration Statement and to the reference to this firm and this opinion under the heading “Legal Matters” in the Prospectus comprising a part of the Registration Statement and any amendment thereto. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Dentons US LLP

ATEC ANNOUNCES PRICING OF PUBLIC OFFERING  
OF COMMON STOCK

CARLSBAD, Calif., October 13, 2020 — Alphatec Holdings, Inc. (“ATEC”) (NASDAQ: ATEC), a provider of innovative spine surgery solutions dedicated to revolutionizing the approach to spine surgery, today announced the pricing of an underwritten public offering of 11,428,570 shares of its common stock at a public offering price of \$8.75 per share.

The gross proceeds to ATEC from the offering, before underwriting discounts and commissions and estimated offering expenses, are expected to be approximately \$100 million. In connection with the offering, ATEC has granted the underwriters a 30-day option to purchase up to an additional 1,714,285 shares of common stock at the public offering price, less underwriting discounts and commissions. All of the shares in the offering are to be sold by ATEC. The offering is expected to close on October 16, 2020, subject to the satisfaction of customary closing conditions.

Morgan Stanley and Cowen are acting as joint book-running managers in the offering. Canaccord Genuity is acting as lead manager in the offering, with Lake Street Capital Markets and Northland Capital Markets acting as co-managers.

The shares of common stock are being offered pursuant to a shelf registration statement on Form S-3 (File No. 333-241677) previously filed with and declared effective by the Securities and Exchange Commission. The offering is being made only by means of a prospectus supplement and the accompanying prospectus. A preliminary prospectus supplement and accompanying prospectus relating to the offering have been previously filed with the SEC and are available on the SEC’s website at [www.sec.gov](http://www.sec.gov). The final prospectus supplement and accompanying base prospectus will be filed with the SEC and available on the SEC’s website thereafter, and, when available, may also be obtained from Morgan Stanley & Co. LLC, Attention: Prospectus Department, 180 Varick Street, 2nd Floor, New York, New York 10014, or by e-mail at [prospectus@morganstanley.com](mailto:prospectus@morganstanley.com) or Cowen and Company, LLC, at c/o Broadridge Financial Solutions, Attn: Prospectus Department, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at (833) 297-2926 or by email at [PostSaleManualRequests@broadridge.com](mailto:PostSaleManualRequests@broadridge.com).

This press release shall not constitute an offer to sell nor the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

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**About ATEC**

Alphatec Holdings, Inc. (ATEC), through its wholly-owned subsidiaries, Alphatec Spine, Inc. and SafeOp Surgical, Inc., is a medical device company dedicated to revolutionizing the approach to spine surgery through clinical distinction. ATEC's Organic Innovation Machine is focused on developing new approaches that integrate seamlessly with the SafeOp Neural InformatiX System to safely and reproducibly treat spine's various pathologies and achieve the goals of spine surgery. Alphatec's vision is to become the Standard Bearer in Spine.

**Forward-Looking Statements**

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainty. Such statements are based on management's current expectations and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. ATEC cautions investors that there can be no assurance that actual results or business conditions will not differ materially from those projected or suggested in such forward-looking statements as a result of various factors. The words "believe," "will," "should," "expect," "intend," "estimate," "look forward" and "anticipate," variations of such words and similar expressions identify forward-looking statements, but their absence does not mean that a statement is not a forward-looking statement. A further list and description of these and other factors, risks and uncertainties can be found in ATEC's most recent annual report, any subsequent quarterly and current reports, and certain other filings, filed with the Securities and Exchange Commission. ATEC disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, unless required by law.

**Company Contact:**

Jeff Black  
Chief Financial Officer  
[investorrelations@atecspine.com](mailto:investorrelations@atecspine.com)

**Investor/Media Contact:**

Tina Jacobsen  
Investor Relations  
(760) 494-6790  
[investorrelations@atecspine.com](mailto:investorrelations@atecspine.com)

ATEC ANNOUNCES CLOSING  
OF PUBLIC STOCK OFFERING AND FULL EXERCISE  
OF UNDERWRITERS' OPTION TO PURCHASE  
ADDITIONAL STOCK

CARLSBAD, Calif., October 16, 2020 — Alphatec Holdings, Inc. (“ATEC”) (NASDAQ: ATEC), a provider of innovative spine surgery solutions dedicated to revolutionizing the approach to spine surgery, today announced the closing of its previously announced underwritten public offering of 13,142,855 shares of its common stock, which includes the full exercise of the underwriters’ option to purchase 1,714,285 additional shares of common stock, at a public offering price of \$8.75 per share, for total gross proceeds of approximately \$115.0 million, before deducting underwriting discounts and commissions and estimated offering expenses payable by ATEC.

Morgan Stanley and Cowen acted as joint book-running managers in the offering. Canaccord Genuity acted as lead manager in the offering, with Lake Street Capital Markets and Northland Capital Markets acting as co-managers.

The shares of common stock were offered pursuant to a shelf registration statement on Form S-3 (File No. 333-241677) previously filed with and declared effective by the Securities and Exchange Commission. The offering was made by means of a prospectus supplement and the accompanying prospectus. A preliminary prospectus supplement and accompanying prospectus relating to the offering were filed previously with the SEC and are available on the SEC’s website at [www.sec.gov](http://www.sec.gov). The final prospectus supplement and accompanying base prospectus will be filed with the SEC and available on the SEC’s website thereafter, and, when available, may also be obtained from Morgan Stanley & Co. LLC, Attention: Prospectus Department, 180 Varick Street, 2nd Floor, New York, New York 10014, or by e-mail at [prospectus@morganstanley.com](mailto:prospectus@morganstanley.com) or Cowen and Company, LLC, at c/o Broadridge Financial Solutions, Attn: Prospectus Department, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at (833) 297-2926 or by email at [PostSaleManualRequests@broadridge.com](mailto:PostSaleManualRequests@broadridge.com).

This press release shall not constitute an offer to sell nor the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

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**About ATEC**

Alphatec Holdings, Inc. (ATEC), through its wholly-owned subsidiaries, Alphatec Spine, Inc. and SafeOp Surgical, Inc., is a medical device company dedicated to revolutionizing the approach to spine surgery through clinical distinction. ATEC's Organic Innovation Machine is focused on developing new approaches that integrate seamlessly with the SafeOp Neural InformatiX System to safely and reproducibly treat spine's various pathologies and achieve the goals of spine surgery. Alphatec's vision is to become the Standard Bearer in Spine. For more information, visit us at [www.atecspine.com](http://www.atecspine.com).

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Jeff Black  
Chief Financial Officer  
[investorrelations@atecspine.com](mailto:investorrelations@atecspine.com)

**Investor/Media Contact:**

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