

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**AMENDMENT NO. 1 TO  
FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**CNS Pharmaceuticals, Inc.**  
(Exact Name of Registrant as Specified in Its Charter)

Nevada  
(State or Other Jurisdiction of  
Incorporation or Organization)

2834  
(Primary Standard Industrial  
Classification Code Number)

82-2318545  
(I.R.S. Employer  
Identification Number)

2100 West Loop South, Suite 900  
Houston, TX 77027  
(800) 946-9185  
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Mr. John Climaco  
Chief Executive Officer  
2100 West Loop South, Suite 900  
Houston, TX 77027  
(800) 946-9185  
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

*Copies to:*

Cavas S. Pavri  
Schiff Hardin LLP  
100 N. 18th, Suite 300  
Philadelphia, PA 19103  
Telephone: (202) 724-6847  
Fax: (202) 778-6460

Robert Cohen  
Richard Bass  
McDermott Will & Emery LLP  
340 Madison Avenue  
New York, NY 10173  
Tel: (212) 547-5400

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

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

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

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

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

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company   
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 7(a)(2)(B) of the Securities Act.

**CALCULATION OF REGISTRATION FEE**

Title of each class of securities to be registered	Proposed maximum aggregate offering price (1)(3)	Amount of registration fee
Common stock, par value \$0.001 per share (2)	\$11,500,000	\$1,254.65
Pre-funded warrants to purchase shares of common stock and common stock issuable upon exercise thereof (4)		
Warrants to purchase shares of common stock and shares of common stock issuable upon exercise thereof(4)(5)(6)	\$6,325,000	\$690.06
<b>Total</b>	<b>\$17,825,000</b>	<b>\$1,944.71 (7)</b>

(1) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

(2) Includes shares of common stock which may be issued on exercise of a 45-day option granted to the underwriters to cover over-allotments, if any.

(3) The proposed maximum aggregate offering price of the common stock proposed to be sold in the offering will be reduced on a dollar-for-dollar basis based on the aggregate offering price of the pre-funded warrants offered and sold in the offering (plus the aggregate exercise price for the common stock issuable upon exercise of the pre-funded warrants), and as such the proposed aggregate maximum offering price of the common stock and pre-funded warrants (including the common stock issuable upon exercise of the pre-funded warrants), if any, is \$11,500,000.

(4) Pursuant to Rule 416 under the Securities Act of 1933, as amended, the securities being registered hereunder include such indeterminate number of additional securities as may be issuable to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(5) The warrants to purchase common stock are exercisable at a per share price equal to 110% of the public offering price of one share of common stock. The proposed maximum aggregate public offering price of the shares of common stock issuable upon the exercise of the warrants to purchase common stock was calculated to be \$6,325,000, which is equal to 110% of \$5,750,000 (which is equal to 50% of \$11,500,000), since each share of common stock or each pre-funded warrant will receive a warrant to purchase one-half of one share of common stock.

(6) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act of 1933, as amended.

(7) \$1,254.65 previously paid.

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

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

Preliminary Prospectus

Subject to Completion Dated December 22, 2020.

**4,048,583 Shares of Common Stock**  
**Pre-Funded Warrants to Purchase Up to 4,048,583 Shares of Common Stock**  
**Warrants to Purchase Up to 2,024,292 Shares of Common Stock**  
**CNS Pharmaceuticals, Inc.**

We are offering 4,048,583 shares of common stock, \$0.001 par value per share, of CNS Pharmaceuticals, Inc., a Nevada corporation (the “Company”), and warrants to purchase up to 2,024,292 shares of our common stock (and the common stock issuable from time to time upon the exercise of the warrants) in a firm commitment underwritten public offering. Each share of our common stock is being sold together with a warrant, or a purchase warrant, to purchase up to 0.5 shares of our common stock. Each purchase warrant will have an exercise price per share of not less than 110% of the public offering price, will be exercisable immediately and will expire on the fifth anniversary of the original issuance date.

We are also offering to each purchaser, if any, whose purchase of shares of common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock immediately following the consummation of this offering, the opportunity to purchase, if any such purchaser so chooses, pre-funded warrants, in lieu of shares of common stock that would otherwise result in such purchaser’s beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant is exercisable for one share of our common stock and has an exercise price of \$0.001 per share. For each pre-funded warrant that we sell, the number of shares of common stock we are offering will be reduced on a one-for-one basis. Each pre-funded warrant purchased in this offering in lieu of common stock is also being sold together with a purchase warrant. This offering also relates to the shares of common stock issuable upon exercise of the purchase warrants and any pre-funded warrants sold in this offering. Pursuant to this prospectus, we are also offering the shares of common stock issuable upon the exercise of the purchase warrants and pre-funded warrants offered hereby.

The shares of common stock and pre-funded warrants, if any, can each be purchased only with the accompanying purchase warrants (other than the over-allotment option), but will be issued separately, and will be immediately separable upon issuance.

Our common stock is listed on the NASDAQ Capital Market, or Nasdaq, under the symbol “CNSP”. The last reported sale price of our common stock on Nasdaq on December 21, 2020 was \$2.47 per share. We do not intend to list the pre-funded warrants or purchase warrants on the NASDAQ Capital Market, any other national securities exchange or any other nationally recognized trading system.

We have assumed a public offering price of \$2.47 per share (and \$2.469 per pre-funded warrant), which was the last reported sale price for our common stock on Nasdaq on December 21, 2020. The actual public offering price of the shares of common stock and the pre-funded warrants, and the exercise price for the accompanying purchase warrant, will be determined through negotiation between us and the underwriters at the time of pricing, and may be at a discount to the current market price. Therefore, the recent market price used throughout this prospectus as an assumed public offering price may not be indicative of the actual public offering price.

We are an “emerging growth company” as defined in Section 2(a) of the Securities Act of 1933, as amended, and we have elected to comply with certain reduced public company reporting requirements.

**An investment in our common stock involves significant risks. You should carefully consider the [risk factors](#) beginning on page 7 of this prospectus before you make your decision to invest in our common stock.**

**Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

	Per Share and accompanying Purchase Warrant	Per Pre-Funded Warrant and accompanying Purchase Warrant	Total
Public offering price (1)	\$	\$	\$
Underwriting discounts and commissions (7.0%) (1)(2)	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

(1)The public offering price is \$ per share of common stock and accompanying purchase warrant and \$ per pre-funded warrant and accompanying purchase warrant.

(2)Does not include certain expenses of the underwriters. See “[Underwriting](#)” beginning on page 22 of this prospectus for additional information regarding underwriting compensation.

We have granted a 45-day option to the underwriter to purchase up to 607,287 additional shares of common stock (up to 15% of the number of shares of common stock and pre-funded warrants sold in the primary offering) and/or additional purchase warrants to purchase up to 303,644 shares of common stock (up to 15% of the number of purchase warrants sold in the primary offering), solely to cover over-allotments, if any.

Delivery of the shares of our common stock, purchase warrants and any pre-funded warrants is expected to be made on or about \_\_\_\_\_, 2020.

\_\_\_\_\_  
*Sole Book-Running Manager*

**A.G.P.**

The date of this prospectus is \_\_\_\_\_, 2020

TABLE OF CONTENTS

<a href="#">RISK FACTORS</a>	7
<a href="#">CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</a>	13
<a href="#">USE OF PROCEEDS</a>	14
<a href="#">DIVIDEND POLICY</a>	14
<a href="#">CAPITALIZATION</a>	15
<a href="#">DILUTION</a>	16
<a href="#">DESCRIPTION OF CAPITAL STOCK</a>	17
<a href="#">DESCRIPTION OF PRE-FUNDED WARRANTS AND PURCHASE WARRANTS</a>	20
<a href="#">UNDERWRITING</a>	22
<a href="#">LEGAL MATTERS</a>	25
<a href="#">EXPERTS</a>	25
<a href="#">INCORPORATION BY REFERENCE</a>	25
<a href="#">WHERE YOU CAN FIND MORE INFORMATION</a>	26

No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

This prospectus contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. This data involves a number of assumptions and limitations and contains projections and estimates of the future performance of the industries in which we operate that are subject to a high degree of uncertainty. We caution you not to give undue weight to such projections, assumptions and estimates.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read this entire prospectus carefully, including the “Risk Factors” section, our historical consolidated financial statements and the notes thereto, each included elsewhere in this prospectus.*

### Overview

We are a clinical pharmaceutical company organized as a Nevada corporation in July 2017 to focus on the development of anti-cancer drug candidates for the treatment of brain and central nervous system tumors, based on intellectual property that we license under license agreements with Houston Pharmaceuticals, Inc. (“HPI”) and The University of Texas M.D. Anderson Cancer Center (“UTMDACC”) and own pursuant to a collaboration and asset purchase agreement with Reata Pharmaceuticals, Inc. (“Reata”).

We believe our lead drug candidate, Berubicin, if approved by the FDA, may be a significant discovery in the treatment of glioblastoma. Glioblastoma are tumors that arise from astrocytes, which are star-shaped cells making up the supportive tissue of the brain. These tumors are usually highly malignant (cancerous) because the cells reproduce quickly, and they are supported by a large network of blood vessels. Berubicin is an anthracycline, which is a class of drugs that are among the most powerful chemotherapy drugs known. Based on limited clinical data, we believe Berubicin is the first anthracycline that appears to have crossed the blood brain barrier and target brain cancer cells. While our current focus is solely on the development of Berubicin, we are also in the process of attempting to secure intellectual property rights in additional compounds that may be developed into drugs to treat cancers.

Berubicin was discovered at MD Anderson by Dr. Waldemar Priebe, the founder of the Company. Through a series of transactions, Berubicin was initially licensed to Reata. Reata conducted a Phase I clinical trial on Berubicin but subsequently allowed their IND with the FDA to lapse for strategic reasons. This required us to obtain a new IND for Berubicin before beginning further clinical trials. On December 17, 2020, we announced that our IND application with the FDA for Berubicin for the treatment of Glioblastoma Multiforme was in effect. We intend to initiate our trial during the first quarter of 2021 to investigate the efficacy of Berubicin in adults with Glioblastoma Multiforme who have failed first-line therapy. Recent correspondence between us and the FDA resulted in modifications to our previously disclosed trial design, including designating overall survival (OS) as the primary endpoint of the study. OS is a rigorous endpoint that the FDA has recognized as a basis for approval of oncology drugs when a statistically significant improvement can be shown relative to a randomized control arm.

The planned Phase 2 trial will evaluate the efficacy of Berubicin in patients with Glioblastoma Multiforme who have failed primary treatment for their disease, and results will be compared to the current standard of care, with 2 to 1 randomization of the 243 patients to Berubicin or Lomustine. Subjects receiving Berubicin will be administered a 2-hour IV infusion of 7.5 mg/m<sup>2</sup> berubicin hydrochloride daily for three consecutive days followed by 18 days off (21-day cycle). Lomustine is administered orally. The trial will include an interim analysis that will evaluate the comparative effectiveness of these treatments. The trial's adaptive design is intended to allow this interim analysis of the data to demonstrate meaningful differences in efficacy between treatments and then to allow an adjustment to the size of the patient population in the trial for maximum efficiency in terms of time in development. Even if Berubicin is approved, there is no assurance that patients will choose an infusion treatment, as compared to the current standard of care, which requires oral administration.

We do not have manufacturing facilities and all manufacturing activities are contracted out to third parties. Additionally, we do not have a sales organization.

On November 21, 2017, we entered into a Collaboration and Asset Purchase Agreement with Reata (the “Reata Agreement”). Pursuant to the Reata Agreement we purchased all of Reata’s intellectual property and development data regarding Berubicin, including all trade secrets, knowhow, confidential information and other intellectual property rights, which we refer to as the Reata Data.

On December 28, 2017, we obtained the rights to a worldwide, exclusive royalty-bearing, license to the chemical compound commonly known as Berubicin from HPI in an agreement we refer to as the HPI License. HPI is affiliated with Dr. Priebe, who controls a majority of our shares. Under the HPI License we obtained the exclusive right to develop certain chemical compounds for use in the treatment of cancer anywhere in the world. In the HPI License we agreed to pay HPI: (i) development fees of \$750,000 over a three-year period beginning November 2019; (ii) a 2% royalty on net sales; (iii) a \$50,000 per year license fee; (iv) milestone payments of \$100,000 upon the commencement of a Phase II trial and \$1.0 million upon the approval of a New Drug Application (“NDA”) for Berubicin; and (v) 200,000 shares of our common stock. The patents we licensed from HPI expired in March 2020.

On June 10, 2020, the FDA granted Orphan Drug Designation (“ODD”) for Berubicin for the treatment of malignant gliomas. ODD from the FDA is available for drugs targeting diseases with less than 200,000 cases per year. ODD may enable market exclusivity of 7 years from the date of approval of a NDA in the United States. During that period the FDA generally could not approve another product containing the same drug for the same designated indication. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. The ODD now constitutes our primary intellectual property protections although the Company is exploring if there are other patents that could be filed related to Berubicin to extend additional protections.

With the Reata Agreement and the HPI License, we believe we have obtained all rights and intellectual property necessary to develop Berubicin. As stated earlier, it is our plan to obtain additional intellectual property covering other compounds which, subject to the receipt of additional financing, may be developed into drugs for brain and other cancers.

On January 10, 2020, we entered into a Patent and Technology License Agreement (the “1244 Agreement”) with The Board of Regents of The University of Texas System, an agency of the State of Texas, on behalf of the UTMDACC. Pursuant to the 1244 Agreement, we obtained a royalty-bearing, worldwide, exclusive license to certain intellectual property rights, including patent rights, related to our WP1244 drug technology. In consideration, we must make payments to UTMDACC including an up-front license fee, annual maintenance fee, milestone payments and royalty payments (including minimum annual royalties) for sales of licensed products developed under the 1244 Agreement. The term of the 1244 Agreement expires on the last to occur of: (a) the expiration of all patents subject to the 1244 Agreement, or (b) fifteen years after execution; provided that UTMDACC has the right to terminate the 1244 Agreement in the event that we fail to meet certain commercial diligence milestones.

On March 20, 2020, we entered into a Development Agreement with WPD Pharmaceuticals (“WPD”) (the “Development Agreement”), a company founded by Dr. Priebe. Pursuant to the Development Agreement, WPD agreed to use its commercially reasonable efforts in good faith to develop and commercialize certain products that WPD had previously sublicensed, solely in the field of pharmaceutical drug products for the treatment of any viral infection in humans, with a goal of eventual approval of in certain territories consisting of: Poland, Estonia, Latvia, Lithuania, Belarus, Ukraine, Romania, Armenia, Azerbaijan, Georgia, Slovakia, Czech Republic, Hungary, Uzbekistan, Kazakhstan, Greece, Austria, Russia, Netherlands, Turkey, Belgium, Switzerland, Sweden, Portugal, Norway, Denmark, Ireland, Finland, Luxembourg, Iceland. Pursuant to the Development Agreement, we agreed to pay WPD the following payments: (i) an upfront payment of \$225,000 to WPD (paid in April 2020); and (ii) within thirty days of the verified achievement of the Phase II Milestone, (such verification shall be conducted by an independent third party mutually acceptable to the parties hereto), we will make a payment of \$775,000 to WPD. WPD agreed to pay us a development fee of 50% of the net sales for any products in the above territories; provided that Poland shall not be included as a territory after WPD receives marketing approval for a product in one-half of the countries included in the agreed upon territories or upon the payment by WPD to us of development fees of \$1.0 million. The term of the Development Agreement will expire on the expiration of the sublicense pursuant to which WPD has originally sublicensed the products, which will occur upon the expiration of the patents subject to the sublicense agreement, the earliest of which expires in 2024.

On May 7, 2020, pursuant to the WP1244 Portfolio license agreement described above, the Company entered into a Sponsored Research Agreement with UTMDACC to perform research relating to novel anticancer agents targeting CNS malignancies. The Company agreed to fund approximately \$1,134,000 over a two-year period. The Company will pay and record \$734,000 in 2020 related to this agreement in research and development expenses in the Company’s Statements of Operations. The remainder will be paid and recorded in 2021. The principal investigator for this agreement is Dr. Priebe. As of September 30, 2020, the Company has paid \$334,000 in research and development expenses to UTMDACC.

On May 1, 2020, the Securities and Exchange Commission (“SEC”) announced a temporary suspension of trading in our securities due to statements made by us and others in press releases issued between March 23, 2020 and April 13, 2020 concerning our business, including the status of development of a drug candidate labeled WP1122, the status of testing WP1122’s impact on COVID-19, and the ability to expedite regulatory approval of any such treatment. Pursuant to the suspension order, the trading halt was initiated at 9:30 a.m. EDT on May 4, 2020 and terminated at 11:59 p.m. EDT on May 15, 2020. Commencing May 18, 2020, the Nasdaq Stock Market placed a halt on the trading of our common stock pending the receipt of additional information. This halt was lifted on May 28, 2020. We believe in the accuracy and adequacy of our public disclosures, but can provide no assurances that we will not encounter future similar actions, which may adversely affect the holders of our common stock. Since the trading halt was lifted, we have not received any further communication from the SEC or Nasdaq on the foregoing.

On September 15, 2020, we entered into a purchase agreement, and a registration rights agreement, with Lincoln Park Capital Fund, LLC (“Lincoln Park”), pursuant to which Lincoln Park committed to purchase up to \$15.0 million worth of our common stock. Under the terms and subject to the conditions of the purchase agreement, we have the right, but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase up to \$15.0 million worth of shares of our common stock. Such sales of common stock, if any, will be subject to certain limitations, and may occur from time to time, at our sole discretion, over the 36-month period. As consideration for Lincoln Park’s irrevocable commitment to purchase our common stock upon the terms of and subject to satisfaction of the conditions set forth in the purchase agreement, upon execution of the purchase agreement, we issued 201,991 shares of common stock to Lincoln Park as commitment shares.

#### **Risks Relating to Our Business**

As a preclinical stage pharmaceutical company, our business and ability to execute our business strategy are subject to a number of risks of which you should be aware before you decide to buy our securities. In particular, you should consider the following risks, which are discussed more fully in the section entitled “Risk Factors”:

- we will require substantial additional capital in the future. If additional capital is not available, we will have to delay, reduce or cease operations;
- we currently do not have regulatory approval for any drug candidates, in the United States or elsewhere, and although we plan to conduct clinical trials in the United States for Berubicin in the future, there is no assurance that we will be successful in our clinical trials or receive regulatory approval in a timely manner, or at all;

- we intend to commence our Phase 2 clinical trial for Berubicin in the first quarter of 2021, and may encounter unforeseen delays due to the effects of the COVID-19 outbreak, including, without limitation, delays in recruitment for our clinical trials and delays in the production of our drug product;
- we currently do not carry product liability insurance covering any of our drug candidates and, although we intend to obtain product liability insurance for future clinical trial liability that we may incur, there can be no assurance that we will secure adequate coverage or that, even if we do so, any such coverage will be sufficient to prevent the exposure of our operations to significant potential liability in the future;
- the three patents we have licensed from HPI expired in March 2020. Additionally, our products and technologies are complex and any patents we obtain in the future may not be sufficient to protect our products where a series of patents may be needed. Further, we may not have the necessary financial resources to enforce or defend our future patents or patent applications. In addition, any patent applications we may have made or may make relating to inventions for our actual or potential products and technologies may not result in patents being issued or may result in patents that provide insufficient or incomplete coverage for our inventions;
- third parties may claim that the manufacture, use or sale of our technologies infringes their intellectual property rights. As with any litigation where such claims may be asserted, we may have to seek licenses, defend infringement actions or challenge the validity of those patents in the patent office or the courts. If these are not resolved favorably, we may not be able to continue to develop and commercialize our drug candidates. Even if we were able to obtain rights to a third party's intellectual property, these rights may be non-exclusive, thereby giving our competitors potential access to the same intellectual property. If we are found liable for infringement or are not able to have these patents declared invalid or unenforceable, we may be liable for significant monetary damages, encounter significant delays in bringing products to market or be precluded from participating in the manufacture, use or sale of products or technologies by patents of others. We may not have identified, or be able to identify in the future, U.S. or foreign patents that pose a risk of potential infringement claims;

- prior to our IPO, we completed related party transactions that were not conducted on an arm's length basis. We acquired our license rights from HPI, and Dr. Waldemar Priebe, our founder and largest shareholder, controls HPI. Since this transaction was not conducted on an arm's length basis, it is possible that the terms were less favorable to us than in an arm's length transaction;
- our chief medical officer and chief science officer are currently working for us on a part time basis. Our chief executive officer, chief medical officer and chief science officer, also provide services for other companies in our industry and such other positions may create conflicts of interest for such officers in the future;
- we have never been profitable, have not generated significant revenue to date and we expect to incur significant additional losses to fund our clinical trials;
- the pharmaceutical industry is subject to significant regulation and oversight in the U.S., in addition to approval of products for sale and marketing;
- our short-to-medium term prospects depend largely on our ability to develop and commercialize one drug candidate, Berubicin, and our ability to generate revenues in the future will depend heavily on the successful development and commercialization of Berubicin;
- we may be subject to delays in our clinical trials, which could result in increased costs and delays or limit our ability to obtain regulatory approval for any drug candidates;
- we have never commercialized any of our drug candidates, including Berubicin, and, even if approved, our drug candidates may not be accepted by healthcare providers or healthcare payors; and
- we may be unable to maintain and protect our intellectual property assets, which could impair the advancement of our pipeline and commercial opportunities.

#### **Implications of Being an Emerging Growth Company**

We qualify as an "emerging growth company" as the term is used in The Jumpstart Our Business Startups Act of 2012 (JOBS Act), and therefore, we may take advantage of certain exemptions from various public company reporting requirements, including:

- a requirement to only have two years of audited financial statements and only two years of related selected financial data and management's discussion and analysis;
- exemption from the auditor attestation requirement on the effectiveness of our internal controls over financial reporting;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory stockholder vote on executive compensation and any golden parachute payments.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.07 billion in annual revenues, have more than \$700.0 million in market value of our capital stock held by non-affiliates or issue more than \$1.07 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available benefits of the JOBS Act. We have taken advantage of some of the reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock. In addition, the JOBS Act provides that an emerging growth company can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

#### **Company Information**

**The Offering**

Common stock we are offering	4,048,583 shares
Pre-funded warrants we are offering	We are also offering to certain purchasers whose purchase of shares of common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock immediately following the closing of this offering, the opportunity to purchase, if such purchasers so choose, pre-funded warrants to purchase shares of common stock, in lieu of shares of common stock that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant is exercisable for one share of our common stock. The purchase price of each pre-funded warrant is equal to the price at which a share of common stock is being sold to the public in this offering, minus \$0.001, and the exercise price of each pre-funded warrant is \$0.001 per share. The pre-funded warrants are exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. The pre-funded warrants also provide that in the event of a fundamental transaction we are required to cause any successor entity to assume our obligations under the pre-funded warrants. In addition, the holder of the pre-funded warrant will be entitled to receive upon exercise of the pre-funded warrant the kind and amount of securities, cash or property that the holder would have received had the holder exercised the pre-funded warrant immediately prior to such fundamental transaction. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrants sold in this offering. For each pre-funded warrant that we sell, the number of shares of common stock that we are offering will be reduced on a one-for-one basis.
Purchase warrants we are offering	Each share of common stock and each pre-funded warrant is being sold together with a purchase warrant to purchase up to 0.5 shares of our common stock. Each purchase warrant will have an exercise price per share of not less than 110% of the public offering price, will be exercisable immediately and will expire on the fifth anniversary of the original issuance date. Each holder of purchase warrants will be prohibited from exercising its purchase warrant for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase such percentage to any other percentage not in excess of 9.99%. This offering also relates to the offering of the shares of common stock issuable upon the exercise of the purchase warrants.
Over-allotment option	We have granted a 45-day option to the underwriter to purchase up to 607,287 additional shares of common stock (up to 15% of the number of shares of common stock and pre-funded warrants sold in the primary offering) and/or purchase warrants to purchase up to an aggregate of 303,644 additional shares of common stock (up to 15% of the number of purchase warrants sold in the primary offering) solely to cover overallocments, if any.
Common stock outstanding immediately before this offering	18,106,151 shares
Common stock outstanding immediately after this offering	22,154,734 shares (22,762,021 shares if the underwriters' option to purchase additional shares is exercised in full), in each case assuming no exercise of the pre-funded warrants issued in this offering.

Use of proceeds	We estimate that the net proceeds from this offering will be approximately \$9.1 million, or approximately \$10.5 million if the underwriters exercise their over-allotment option in full, excluding any proceeds that may be received upon the exercise of the purchase warrants, at an assumed public offering price of \$2.47 per share and accompanying purchase warrant, which is closing price of our common stock as reported on NASDAQ on December 21, 2020, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the proceeds from this offering primarily to fund development costs for Berubicin and for working capital. See " <a href="#">Use of Proceeds</a> ."
Risk Factors	See "Risk Factors" and other information appearing elsewhere in this prospectus for a discussion of factors you should carefully consider before deciding whether to invest in our common stock.

Lock-up	We have agreed, subject to certain exceptions and without the approval of the representative of the underwriters, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any of our securities for a period of 90 days following the closing of the offering of the shares. Our directors and officers have agreed not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any of our securities for 90 days following the closing of the offering of the shares. See “ <a href="#">Underwriting</a> ” for more information.
Nasdaq listing symbol	“CNSP.” There is no established trading market for the pre-funded warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the pre-funded warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the pre-funded warrants will be limited.

The number of shares of common stock to be outstanding after this offering is based on 18,106,151 shares outstanding as of December 21, 2020, and does not give effect to the shares of common stock issuable upon exercise of the pre-funded warrants or purchase warrants being offered by us in this offering, as well as:

- 3,986,630 shares of common stock underlying outstanding warrants at a weighted average exercise price of \$3.99 per share;
- 2,200,736 shares of common stock underlying outstanding options with a weighted average exercise price of \$2.00 per share, which options vest over a three to four-year period; and
- 2,799,264 shares available for future issuance under the CNS Pharmaceuticals, Inc. 2020 Stock Plan;

Except as otherwise indicated, all information in this prospectus reflects and assumes no exercise by the underwriters of their overallotment option to purchase additional shares of common stock and/or purchase warrants from us.

## RISK FACTORS

*Investing in our common stock and warrants involves a high degree of risk. Before investing in our common stock and warrants, you should consider carefully the risks and uncertainties discussed under “Risk Factors” in our latest annual report on Form 10-K and subsequent quarterly reports on Form 10-Q and current reports on Form 8-K, which are incorporated by reference herein in their entirety. You should carefully consider each of the following risks, together with all other information set forth in this prospectus, including the consolidated financial statements and the related notes, before making a decision to buy our common stock and warrants. If any of the following risks actually occurs, our business could be harmed. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.*

### Risks Related to our Business

***We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not so available, may require us to delay, limit, reduce or cease our operations.***

We are using the proceeds from this offering to, among other uses, advance Berubicin through clinical development. Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We will require substantial additional future capital in order to complete clinical development and commercialize Berubicin. If the FDA requires that we perform additional nonclinical studies or clinical trials, our expenses would further increase beyond what we currently expect and the anticipated timing of any potential approval of Berubicin would likely be delayed. Further, there can be no assurance that the costs we will need to incur to obtain regulatory approval of Berubicin will not increase.

We will continue to require substantial additional capital to continue our clinical development and commercialization activities. Because successful development of our product candidates is uncertain, we are unable to estimate the actual amount of funding we will require to complete research and development and commercialize our products under development.

The amount and timing of our future funding requirements will depend on many factors, including but not limited to:

- whether our plan for clinical trials will be completed on a timely basis;
- any delays in our clinical trials caused by the COVID-19 outbreak;
- whether we are successful in obtaining an accelerated approval pathway with the FDA related to Berubicin;
- the progress, costs, results of and timing of our clinical trials for Berubicin;
- the outcome, costs and timing of seeking and obtaining FDA and any other regulatory approvals;
- the costs associated with securing and establishing commercialization and manufacturing capabilities;
- market acceptance of our product candidates;
- the costs of acquiring, licensing or investing in businesses, products, product candidates and technologies;
- our ability to maintain, expand and enforce the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights;

- our need and ability to hire additional management and scientific and medical personnel;
- the effect of competing drug candidates and new product approvals;

- our need to implement additional internal systems and infrastructure, including financial and reporting systems; and
- the economic and other terms, timing of and success of our existing licensing arrangements and any collaboration, licensing or other arrangements into which we may enter in the future.

Some of these factors are outside of our control. We may seek additional funding through a combination of equity offerings, debt financings, government or other third-party funding, commercialization, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. Additional funding may not be available to us on acceptable terms or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our stockholders.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail one or more of our research or development programs. We also could be required to seek funds through arrangements with collaborative partners or otherwise that may require us to relinquish rights to some of our technologies or product candidates or otherwise agree to terms unfavorable to us.

***We have completed related party transactions with entities affiliated with our largest shareholder.***

Prior to our IPO, we acquired the rights to Berubicin pursuant to a license agreement with HPI, a company affiliated with our largest shareholder, Dr. Waldemar Priebe. Under the HPI License we obtained the exclusive right to develop certain chemical compounds for use in the treatment of cancer anywhere in the world. In the HPI License we agreed to pay HPI: (i) development fees of \$750,000 over a three-year period beginning November 2019; (ii) a 2% royalty on net sales; (iii) a \$50,000 per year license fee; (iv) milestone payments of \$100,000 upon the commencement of a Phase II trial and \$1.0 million upon the approval of a New Drug Application (“NDA”) for Berubicin; and (v) 200,000 shares of our common stock.

On March 20, 2020, we entered into a Development Agreement with WPD, a company founded by Dr. Priebe. Pursuant to the Development Agreement, WPD agreed to use its commercially reasonable efforts in good faith to develop and commercialize certain products that WPD had previously sublicensed, solely in the field of pharmaceutical drug products for the treatment of any viral infection in humans, with a goal of eventual approval of in certain territories in Eastern Europe and parts of Asia. Pursuant to the Development Agreement, we agreed to pay WPD the following payments: (i) an upfront payment of \$225,000 to WPD (paid in April 2020); and (ii) within thirty days of the verified achievement of the Phase II Milestone, (such verification shall be conducted by an independent third party mutually acceptable to the parties hereto), we will make a payment of \$775,000 to WPD. WPD agreed to pay us a development fee of 50% of the net sales for any products in the above territories; provided that Poland shall not be included as a territory after WPD receives marketing approval for a product in one-half of the countries included in the agreed upon territories or upon the payment by WPD to us of development fees of \$1.0 million.

Due to the relationship between our company and Dr. Priebe, it is possible that the terms of our agreements with HPI and WPD were less favorable to us than in a transaction negotiated with an unaffiliated third party.

***The COVID-19 outbreak may delay recruitment in our clinical trials, may delay our ability to have our drug product manufactured, may continue or worsen, and may affect the activities of the FDA, EMA or other health authorities, which could result in delays in meetings related to our planned clinical trials and ultimately of reviews and approvals of our product candidates.***

We expect to commence our clinical trial for Berubicin in the first quarter of 2021. The COVID-19 outbreak may delay recruitment in our clinical trial and may continue or worsen. In addition, it may delay our ability to have our drug product manufactured. It may also delay the approvals of our product candidate due to its effect on the activities of the FDA, EMA or other health authorities, which could result in delays in meetings related to our planned clinical trials. The spread of COVID-19 may also slow potential enrollment of clinical trials and reduce the number of eligible patients for our clinical trials. The COVID-19 outbreak and mitigation measures also have had and may continue to have an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairing our ability to raise capital when needed. The extent to which the COVID-19 outbreak impacts our business and operations will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact. In addition, certain of our collaborative relationships with facilities and institutions in the United States and Europe may be materially and adversely impacted by protective measures taken by those institutions or federal and state agencies and governing bodies to restrict access to, or suspend operations at, such facilities. Such protective measures, including quarantines, travel restrictions and business shutdowns, may also have a material negative affect on our core operations.

***Our licensed U.S. patents expired in March 2020, the expiration of our patents may subject us to increased competition, and the Orphan Drug Designation we received for Berubicin will not bar approval of other similar products under certain circumstances.***

The U.S. patents for Berubicin that we licensed from HPI expired in March 2020, and such expiration may subject us to increased competition. On June 10, 2020, the FDA granted Orphan Drug Designation (“ODD”) for Berubicin for the treatment of malignant gliomas. ODD from the FDA is available for drugs targeting diseases with less than 200,000 cases per year. ODD may enable market exclusivity of 7 years from the date of approval of a NDA in the United States. During that period the FDA generally could not approve another product containing the same drug for the same designated indication. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. The ODD now constitutes our primary intellectual property protections although we are exploring if there are other patents that could be filed related to Berubicin to extend additional protections. However, we can provide no assurance that we will be able to file or receive additional patent protection. The failure to obtain additional patent protection will reduce the barrier to entry for competition for Berubicin, which may adversely affect our operations.

***Our chief medical officer and chief science officer are currently working for us on a part-time basis. Our chief executive officer, chief medical officer and chief science officer, also provide services for another company in our industry and such other positions may create conflicts of interest for such officers in the future.***

Certain of our key employees are currently part-time and/or provide services for other biotechnology development efforts, including companies, with respect to our chief executive officer and chief medical officer, which are developing anti-cancer drug candidates. Specifically, John M. Climaco, our chairman and chief executive officer, is also serving as a director for Moleculin Biotech, Inc., a company also actively developing anticancer drugs. Sandra Silberman, our chief medical officer, is the chief medical officer for New Products at Moleculin, and Donald Picker, our chief science officer, is the chief scientific officer at Moleculin. In addition to our officers’ part-time status, since Mr. Climaco, Dr. Silberman and Dr. Picker are associated with another company that is developing anti-cancer drug candidates, they may encounter conflicts of interest in the future.

***In May 2020, the SEC issued an order suspending the trading of our common stock and Nasdaq issued a trading halt in our common stock.***

On May 1, 2020, the SEC, pursuant to Section 12(k) of the Exchange Act, ordered the temporary suspension of trading in our securities because of questions regarding the accuracy and adequacy of information in the marketplace about us and our securities. Pursuant to the suspension order, the suspension commenced at 9:30 a.m. EDT on May 4, 2020 and terminated at 11:59 p.m. EDT on May 15, 2020. On May 15, 2020, Nasdaq issued a trading halt in our common stock pending the receipt of requested information, which halt was released on May 28, 2020. We believe in the accuracy and adequacy of our public disclosures, but can provide no assurances that we will not

### **Risks Related to this Offering**

***Our executive officers, directors, major stockholder and their respective affiliates will continue to exercise significant control over us after this offering, which will limit your ability to influence corporate matters and could delay or prevent a change in corporate control.***

Immediately following the completion of this offering, the existing holdings of our executive officers, directors, major stockholders and their affiliates, will be, in the aggregate, approximately 45.5% of our outstanding common stock (or 44.2% if the underwriters exercise their over-allotment option in full). As a result, these stockholders will be able to influence our management and affairs and control the outcome of matters submitted to our stockholders for approval, including the election of directors and any sale, merger, consolidation, or sale of all or substantially all of our assets.

These stockholders acquired their shares of common stock for substantially less than the price of the shares of common stock being acquired in this offering, and these stockholders may have interests, with respect to their common stock, that are different from those of investors in this offering and the concentration of voting power among one or more of these stockholders may have an adverse effect on the price of our common stock.

In addition, this concentration of ownership might adversely affect the market price of our common stock by: (1) delaying, deferring or preventing a change of control of our Company; (2) impeding a merger, consolidation, takeover or other business combination involving our Company; or (3) discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of our Company.

***We have broad discretion in how we use the proceeds of this offering and may not use these proceeds effectively, which could affect our results of operations and cause our common stock to decline.***

We will have considerable discretion in the application of the net proceeds of this offering. We intend to use the net proceeds from this offering to fund development costs for Berubicin and for working capital. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

***If our stock price fluctuates after the offering, you could lose a significant part of your investment.***

The market price of our common stock could be subject to wide fluctuations in response to, among other things, the risk factors described in this prospectus, and other factors beyond our control, such as fluctuations in the valuation of companies perceived by investors to be comparable to us. Furthermore, the stock markets have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political, and market conditions, such as recessions, interest rate changes or international currency fluctuations, may negatively affect the market price of our common stock. In the past, many companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

***Purchasers in this offering will experience immediate and substantial dilution in net tangible book value.***

The public offering price per share and accompanying purchase warrant is substantially higher than the net tangible book value of each outstanding share of our common stock. Purchasers of common stock and purchase warrants in this offering will experience immediate and substantial dilution on a book value basis. The dilution per share in the net tangible book value per share of common stock will be \$1.91 per share, based on a public offering price of \$2.47 per share, which was the closing price of our common stock on December 21, 2020. The foregoing dilution figures assume no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis, and excludes the proceeds, if any, from the exercise of any pre-funded warrants or purchase warrants issued in this offering. The dilution figures also assume no exercise of the over-allotment option by the underwriters. If outstanding stock options and warrants to purchase shares of common stock are exercised, there would be further dilution. See "Dilution."

***Your ownership may be diluted if additional capital stock is issued to raise capital, to finance acquisitions or in connection with strategic transactions.***

We intend to seek to raise additional funds, finance acquisitions or develop strategic relationships by issuing equity or convertible debt securities in addition to the shares issued in this offering, which would reduce the percentage ownership of our existing stockholders. Our board of directors has the authority, without action or vote of the stockholders, to issue all or any part of our authorized but unissued shares of common or preferred stock. Our articles of incorporation authorize us to issue up to 75,000,000 shares of common stock and 5,000,000 shares of preferred stock. Future issuances of common or preferred stock would reduce your influence over matters on which stockholders vote and would be dilutive to earnings per share. In addition, any newly issued preferred stock could have rights, preferences and privileges senior to those of the common stock. Those rights, preferences and privileges could include, among other things, the establishment of dividends that must be paid prior to declaring or paying dividends or other distributions to holders of our common stock or providing for preferential liquidation rights. These rights, preferences and privileges could negatively affect the rights of holders of our common stock, and the right to convert such preferred stock into shares of our common stock at a rate or price that would have a dilutive effect on the outstanding shares of our common stock.

***Holders of our purchase warrants or pre-funded warrants will have no rights as a common stockholder until they acquire our common stock.***

Until you acquire shares of our common stock upon exercise of your pre-funded warrants or purchase warrants, you will have no rights with respect to shares of our common stock issuable upon exercise of your pre-funded warrants or purchase warrants. Upon exercise of your pre-funded warrants or purchase warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

***If we do not maintain a current and effective prospectus relating to the common stock issuable upon exercise of the pre-funded warrants or purchase warrants, public holders will only be able to exercise such pre-funded warrants or purchase warrants on a "cashless basis."***

If we do not maintain a current and effective prospectus relating to the shares of common stock issuable upon exercise of the pre-funded warrants or purchase warrants at the time that holders wish to exercise such warrants, they will only be able to exercise them on a “cashless basis,” and under no circumstances would we be required to make any cash payments or net cash settle such warrants to the holders. As a result, the number of shares of common stock that holders will receive upon exercise of the pre-funded warrants or purchase warrants will be fewer than it would have been had such holders exercised their pre-funded warrants or purchase warrants for cash. Under the terms of the pre-funded warrants and purchase warrants, we have agreed to use our best efforts to maintain a current and effective prospectus relating to the shares of common stock issuable upon exercise of such warrants until the expiration of such warrants. However, we cannot assure you that we will be able to do so. If we are unable to do so, the potential “upside” of the holder’s investment in our company may be reduced.

***The pre-funded warrants and purchase warrants are speculative in nature.***

The pre-funded warrants and purchase warrants offered hereby do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price. Specifically, commencing on the date of issuance, holders of the pre-funded warrants may acquire the common stock issuable upon exercise of such warrants at an exercise price of \$0.001 per share of common stock and holders of the purchase warrants may acquire the common stock issuable upon exercise of such warrants at an exercise price of \$2.72 per share of common stock, at an assumed public offering price of \$2.47 per share and accompanying purchase warrant, which is closing price of our common stock as reported on NASDAQ on December 21, 2020. Moreover, following this offering, the market value of the pre-funded warrants and purchase warrants is uncertain and there can be no assurance that the market value of the pre-funded warrants and purchase warrants will equal or exceed their public offering price. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the pre-funded warrants or purchase warrants, and consequently, whether it will ever be profitable for holders of the pre-funded warrants or purchase warrants to exercise such warrants.

***The exercise price of the pre-funded warrants and purchase warrants offered by this prospectus will not be adjusted for certain dilutive events.***

The exercise price of the pre-funded warrants and purchase warrants offered by this prospectus is subject to adjustment for certain events, including, but not limited to, stock dividends and stock splits, and other similar events. However, the exercise prices will not be adjusted for dilutive issuances of securities and there may be transactions or occurrences that may adversely affect the market price of our common stock or the market value of such pre-funded warrants or purchase warrants without resulting in an adjustment of the exercise prices of such pre-funded warrants or purchase warrants.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

We make forward-looking statements in this prospectus, including in the documents incorporated by reference herein. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “should,” “would,” “could,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “predict,” “potential” or “continue,” and the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. In particular, you should consider the numerous risks and uncertainties described under “Risk Factors.”

While we believe we have identified material risks, these risks and uncertainties are not exhaustive. Other sections of this prospectus describe additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. We are under no duty to update any of these forward-looking statements after the date of this prospectus to conform our prior statements to actual results or revised expectations, and we do not intend to do so.

Forward-looking statements include, but are not limited to, statements about:

- our ability to obtain additional funding to develop our product candidates;
- the need to obtain regulatory approval of our product candidates;
- the success of our clinical trials through all phases of clinical development;
- compliance with obligations under intellectual property licenses with third parties;
- any delays in regulatory review and approval of product candidates in clinical development;
- our ability to commercialize our product candidates;
- market acceptance of our product candidates;
- competition from existing products or new products that may emerge;
- potential product liability claims;

- our dependency on third-party manufacturers to supply or manufacture our products;
- our ability to establish or maintain collaborations, licensing or other arrangements;
- our ability and third parties' abilities to protect intellectual property rights;
- our ability to adequately support future growth; and
- our ability to attract and retain key personnel to manage our business effectively.

We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus in the case of forward-looking statements contained in this prospectus.

#### USE OF PROCEEDS

We estimate that we will receive net proceeds from the sale of common stock and accompanying purchase warrants of approximately \$9.1 million (or approximately \$10.5 million if the underwriters' option to purchase additional common stock and accompanying purchase warrants from us is exercised in full), based upon an assumed public offering price of \$2.47 per share and accompanying purchase warrant, which was the closing price of our common stock as reported on NASDAQ on December 21, 2020, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the purchase warrants issued in this offering.

Each \$1.00 increase (decrease) in the assumed public offering price of \$2.47 per share and accompanying purchase warrant (the last reported price for our common stock as reported on the Nasdaq Capital Market on December 21, 2020) would change our net proceeds by \$3.8 million, assuming the number of shares and accompanying purchase warrants offered by us, as set forth on the cover of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares and accompanying purchase warrants we are offering. An increase (decrease) of 100,000 in the number of shares and accompanying purchase warrants we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$0.2 million, assuming the assumed public offering price stays the same.

We intend to use the net proceeds for (i) our Phase 2 trial for Berubicin; (ii) other research and development; and (iii) working capital.

We estimate that our Phase 2 trial will cost approximately \$30-35 million and, as such, we will require additional financing. The timing and costs of clinical trials are difficult to predict and as such the foregoing estimates may prove to be inaccurate. We have no commitments for such additional needed financing, and will likely be required to raise such financing through the sale of additional equity securities, which may occur at prices lower than the offering price of our common stock in this offering.

We believe the net proceeds of this offering, together with our cash and cash equivalents, will be sufficient to meet our cash, operational and liquidity requirements for at least 12 months.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, our management will have broad discretion in the application of these proceeds. Net offering proceeds not immediately applied to the uses summarized above will be invested in short-term investments such as money market funds, commercial paper, U.S. treasury bills and similar securities investments pending their use.

#### DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain earnings, if any, to finance the growth and development of our business. We do not expect to pay any cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in any financing instruments, provisions of applicable law and other factors the board deems relevant.

#### CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2020 on:

- an actual basis; and
- on an as adjusted basis, to give further effect to this offering of 4,048,583 shares of common stock at an assumed public offering price of \$2.47 per share and accompanying purchase warrant, after deducting underwriting discounts and commissions and other estimated offering expenses payable by us. The as adjusted basis assumes no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis, and excludes the proceeds, if any, from the exercise of any pre-funded warrants or purchase warrants issued in this offering. The as adjusted basis also assumes no exercise of the overallotment option by the underwriters.

You should read this capitalization table together with "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing elsewhere in or incorporated by reference into this prospectus.

	<b>At September 30, 2020</b>	
	<b>Actual</b>	<b>As Adjusted</b>
Cash and cash equivalents	\$ 1,307,098	\$ 10,407,098

Stockholders' equity:		
Preferred stock, \$0.001 par value: 5,000,000 authorized, 0 shares issued and outstanding	-	-
Common stock, \$0.001 par value: 75,000,000 shares authorized, actual and pro forma; 16,652,225 shares issued and outstanding, actual and 20,700,808 shares issued and outstanding, pro forma	16,652	20,701
Additional paid-in capital	20,399,241	29,495,192
Accumulated deficit	(17,941,438)	(17,941,438)
Total stockholders' equity	<u>2,474,455</u>	<u>11,574,455</u>
Total capitalization	<u>\$ 2,474,455</u>	<u>\$ 11,574,455</u>

The number of shares of common stock to be outstanding after this offering is based on 16,652,225 shares outstanding as of September 30, 2020, and does not give effect to the shares of common stock issuable upon exercise of the pre-funded warrants or purchase warrants being offered by us in this offering, as well as:

- 3,986,630 shares of common stock underlying outstanding warrants at a weighted average exercise price of \$3.99 per share;
- 2,200,736 shares of common stock underlying outstanding options with a weighted average exercise price of \$2.00 per share, which options vest over a three to four-year period; and
- 1,453,926 shares issued to Lincoln Park Capital Fund, LLC pursuant to the purchase agreement dated September 15, 2020; and
- 2,799,264 shares available for future issuance under the CNS Pharmaceuticals, Inc. 2020 Stock Plan.

15

## DILUTION

Purchasers of our common stock and accompanying purchase warrants in this offering will experience an immediate dilution of net tangible book value per share from the public offering price. Dilution in net tangible book value per share represents the difference between the amount per share paid by the purchasers of shares of common stock and accompanying purchase warrants and the net tangible book value per share immediately after this offering.

As of September 30, 2020, our net tangible book value was \$2.5 million, or \$0.15 per share of common stock. Net tangible book value per share represents our total tangible assets, less our total liabilities, divided by the number of outstanding shares of our common stock.

Dilution represents the difference between the amount per share paid by purchasers in this offering and the pro forma net tangible book value per share of common stock after the offering. After giving effect to the sale of 4,048,583 shares of common stock and accompanying purchase warrants in this offering at an assumed offering price of \$2.47 per share and accompanying purchase warrants, which was the closing price of our common stock as reported on NASDAQ on December 21, 2020, assuming no value is attributed to the purchase warrants and such warrants are classified as and accounted for as equity, and after deducting underwriting commissions and estimated offering expenses payable by us, but without adjusting for any other change in our pro forma net tangible book value subsequent to September 30, 2020, our pro forma net tangible book value would have been \$0.56 per share. This represents an immediate increase in pro forma net tangible book value of \$0.41 per share to our existing stockholders and immediate dilution of \$1.91 per share to new investors purchasing shares and accompanying purchase warrants at the proposed public offering price. The dilution figures assume no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis, and excludes the proceeds, if any, from the exercise of any pre-funded warrants or and purchase warrants issued in this offering. The dilution figures also assume no exercise of the overallotment option by the underwriters. The following table illustrates the dilution in pro forma net tangible book value per share to new investors as of September 30, 2020:

Assumed public offering price per share	\$	2.47
Pro forma net tangible book value per share at September 30, 2020	\$	0.15
Increase in pro forma net tangible book value per share to the existing stockholders attributable to this offering	\$	0.41
Adjusted pro forma net tangible book value per share after this offering	\$	0.56
Dilution in net tangible book value per share to new investors	\$	1.91

Each \$1.00 increase (decrease) in the assumed public offering price of \$2.47 per share and accompanying purchase warrants, would increase (decrease) our as adjusted net tangible book deficit per share to existing investors by \$0.18, and would increase (decrease) dilution per share to new investors in this offering by \$0.82, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated discounts and commissions and estimated offering expenses payable by us. In addition, to the extent any outstanding options to purchase common stock are exercised or any outstanding restricted stock units vest, new investors would experience further dilution. If the underwriters exercise their option to purchase additional shares and accompanying purchase warrants in full, the as adjusted net tangible book value per share of our common stock after giving effect to this offering would be approximately \$0.61 per share, and the dilution in as adjusted net tangible book value per share to investors in this Offering would be approximately \$1.86 per share of common stock.

The number of shares of common stock to be outstanding after this offering is based on 16,652,225 shares outstanding as of September 30, 2020, and does not give effect to the shares of common stock issuable upon exercise of the pre-funded warrants or purchase warrants being offered by us in this offering, and does not give effect to:

- 3,986,630 shares of common stock underlying outstanding warrants at a weighted average exercise price of \$3.99 per share;
- 2,200,736 shares of common stock underlying outstanding options with a weighted average exercise price of \$2.00 per share, which options vest over a three to four-year period;
- 1,453,926 shares issued to Lincoln Park Capital Fund, LLC pursuant to the purchase agreement dated September 15, 2020; and
- 2,799,264 shares available for future issuance under the CNS Pharmaceuticals, Inc. 2020 Stock Plan.

16

The following summary is a description of the material terms of our capital stock and is not complete. You should also refer to the CNS Pharmaceuticals, Inc. articles of incorporation and bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and the applicable provisions of the Nevada Revised Statutes.

Our amended and restated articles of incorporation authorize us to issue up to 75,000,000 shares of common stock and 5,000,000 shares of preferred stock. As of September 30, 2020, we have 16,652,225 shares of common stock outstanding.

## Common Stock

Shares of our common stock have the following rights, preferences and privileges:

### *Voting*

Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. Any action at a meeting at which a quorum is present will be decided by a majority of the voting power present in person or represented by proxy, except in the case of any election of directors, which will be decided by a plurality of votes cast. There is no cumulative voting.

### *Dividends*

Holders of our common stock are entitled to receive dividends when, as and if declared by our board of directors out of funds legally available for payment, subject to the rights of holders, if any, of any class of stock having preference over the common stock. Any decision to pay dividends on our common stock will be at the discretion of our board of directors. Our board of directors may or may not determine to declare dividends in the future. See “Dividend Policy.” The board’s determination to issue dividends will depend upon our profitability and financial condition any contractual restrictions, restrictions imposed by applicable law and the SEC, and other factors that our board of directors deems relevant.

### *Liquidation Rights*

In the event of a voluntary or involuntary liquidation, dissolution or winding up of the Company, the holders of our common stock will be entitled to share ratably on the basis of the number of shares held in any of the assets available for distribution after we have paid in full, or provided for payment of, all of our debts and after the holders of all outstanding series of any class of stock have preference over the common stock, if any, have received their liquidation preferences in full.

### *Other*

Our issued and outstanding shares of common stock are fully paid and nonassessable. Holders of shares of our common stock are not entitled to preemptive rights. Shares of our common stock are not convertible into shares of any other class of capital stock, nor are they subject to any redemption or sinking fund provisions.

## Preferred Stock

We are authorized to issue up to 5,000,000 shares of preferred stock. Our articles of incorporation authorizes the board to issue these shares in one or more series, to determine the designations and the powers, preferences and relative, participating, optional or other special rights and the qualifications, limitations and restrictions thereof, including the dividend rights, conversion or exchange rights, voting rights (including the number of votes per share), redemption rights and terms, liquidation preferences, sinking fund provisions and the number of shares constituting the series. Our board of directors could, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of common stock and which could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, a majority of our outstanding voting stock.

## Convertible Notes and Warrants

In August and September 2017, we issued an aggregate of \$86,825 in principal amount of convertible notes (the “2017 Notes”), at conversion prices ranging from \$0.001 to \$0.045 per share. The note holders also collectively received in the aggregate warrants to purchase 1,206,059 shares of our common stock at an exercise price of \$11.00 per share. On December 31, 2018, the Company amended the 2017 convertible notes to allow the notes to be converted prior to the Company’s IPO at the holder’s option. Certain debtholders then exercised their right to convert the outstanding principal and accrued interest of their outstanding notes on December 31, 2018. A total of \$38,670 of outstanding principal and \$3,128 of accrued interest was converted into 2,158,500 shares of common stock. Additionally, certain note holders entered into settlement agreements to extinguish their remaining principal balance of \$48,155 and remaining accrued interest of \$8,434 in exchange for 2,454,071 warrants to purchase common stock at an exercise price of \$0.70 per share for a term of five years. The December 31, 2018 amendment, conversion and settlement was accounted for as an extinguishment and a loss on extinguishment of \$6,286,841 was recognized. As of December 31, 2018, none of the 2017 Notes remained outstanding.

## Articles of Incorporation and Bylaw Provisions

Our articles of incorporation and bylaws include a number of anti-takeover provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include:

*Advance Notice Requirements.* Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of stockholders. These procedures provide that notice of stockholder proposals must be timely and given in writing to our corporate Secretary. Generally, to be timely, notice must be received at our principal executive offices not fewer than 120 calendar days prior to the first anniversary date on which our notice of meeting and related proxy statement were mailed to stockholders in connection with the previous year’s annual meeting of stockholders. The notice must contain the information required by the bylaws, including information regarding the proposal and the proponent.

*Special Meetings of Stockholders.* Our bylaws provide that special meetings of stockholders may be called at any time by only the Chairman of the Board, the Chief Executive Officer, the President or the board of directors, or in their absence or disability, by any vice president.

*No Written Consent of Stockholders.* Our articles of incorporation and bylaws provide that any action required or permitted to be taken by stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing by such stockholders.

*Amendment of Bylaws.* Our stockholders may amend any provisions of our bylaws by obtaining the affirmative vote of the holders of a majority of each class of issued and outstanding shares of our voting securities, at a meeting called for the purpose of amending and/or restating our bylaws.

*Preferred Stock.* Our articles of incorporation authorizes our board of directors to create and issue rights entitling our stockholders to purchase shares of our stock or

other securities. The ability of our board to establish the rights and issue substantial amounts of preferred stock without the need for stockholder approval may delay or deter a change in control of us. See “Preferred Stock” above.

### **Nevada Takeover Statute**

The Nevada Revised Statutes contain provisions governing the acquisition of a controlling interest in certain Nevada corporations. Nevada’s “acquisition of controlling interest” statutes (NRS 78.378 through 78.3793, inclusive) contain provisions governing the acquisition of a controlling interest in certain Nevada corporations. These “control share” laws provide generally that any person that acquires a “controlling interest” in certain Nevada corporations may be denied voting rights, unless a majority of the disinterested stockholders of the corporation elects to restore such voting rights. These laws will apply to us if we were to have 200 or more stockholders of record (at least 100 of whom have addresses in Nevada appearing on our stock ledger) and do business in the State of Nevada directly or through an affiliated corporation, unless our articles of incorporation or bylaws in effect on the tenth day after the acquisition of a controlling interest provide otherwise. These laws provide that a person acquires a “controlling interest” whenever a person acquires shares of a subject corporation that, but for the application of these provisions of the NRS, would enable that person to exercise (1) one-fifth or more, but less than one-third, (2) one-third or more, but less than a majority or (3) a majority or more, of all of the voting power of the corporation in the election of directors. Once an acquirer crosses one of these thresholds, shares which it acquired in the transaction taking it over the threshold and within the 90 days immediately preceding the date when the acquiring person acquired or offered to acquire a controlling interest become “control shares” to which the voting restrictions described above apply. These laws may have a chilling effect on certain transactions if our amended and restated articles of incorporation or amended and restated bylaws are not amended to provide that these provisions do not apply to us or to an acquisition of a controlling interest, or if our disinterested stockholders do not confer voting rights in the control shares.

Nevada’s “combinations with interested stockholders” statutes (NRS 78.411 through 78.444, inclusive) provide that specified types of business “combinations” between certain Nevada corporations and any person deemed to be an “interested stockholder” of the corporation are prohibited for two years after such person first becomes an “interested stockholder” unless the corporation’s board of directors approves the combination (or the transaction by which such person becomes an “interested stockholder”) in advance, or unless the combination is approved by the board of directors and 60% of the corporation’s voting power not beneficially owned by the interested stockholder, its affiliates and associates. Furthermore, in the absence of prior approval certain restrictions may apply even after such two-year period. For purposes of these statutes, an “interested stockholder” is any person who is (1) the beneficial owner, directly or indirectly, of 10% or more of the voting power of the outstanding voting shares of the corporation, or (2) an affiliate or associate of the corporation and at any time within the two previous years was the beneficial owner, directly or indirectly, of 10% or more of the voting power of the then-outstanding shares of the corporation. The definition of the term “combination” is sufficiently broad to cover most significant transactions between a corporation and an “interested stockholder”. These laws generally apply to Nevada corporations with 200 or more stockholders of record. However, a Nevada corporation may elect in its articles of incorporation not to be governed by these particular laws, but if such election is not made in the corporation’s original articles of incorporation, the amendment (1) must be approved by the affirmative vote of the holders of stock representing a majority of the outstanding voting power of the corporation not beneficially owned by interested stockholders or their affiliates and associates, and (2) is not effective until 18 months after the vote approving the amendment and does not apply to any combination with a person who first became an interested stockholder on or before the effective date of the amendment. We have not made such an election in our original articles of incorporation or in our amended and restated articles of incorporation.

### **Limitations on Liability and Indemnification of Officers and Directors**

Our articles of incorporation and bylaws limit the liability of our officers and directors and provide that we will indemnify our officers and directors, in each case, to the fullest extent permitted by the Nevada Revised Statutes.

### **Listing**

Our common stock is listed on the Nasdaq Capital Market under the symbol “CNSP”.

### **Transfer Agent**

The transfer agent for our common stock is Continental Stock Transfer and Trust.

## **DESCRIPTION OF PRE-FUNDED WARRANTS AND PURCHASE WARRANTS**

*The following is a brief summary of certain terms and conditions of the pre-funded warrants and purchase warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the pre-funded warrants and purchase warrants.*

### **Pre-Funded Warrants**

**Form.** The pre-funded warrants will be issued as individual warrant agreements to the investors. You should review the form of pre-funded warrant, filed as an exhibit to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the pre-funded warrants.

**Exercisability.** The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full in immediately available funds for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as described below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding common stock immediately after exercise, except that upon at least 61 days’ prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder’s pre-funded warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded warrants in this offering may also elect prior to the issuance of the pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding common stock. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

**Duration and Exercise Price.** The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.001 per share of common stock. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

**Cashless Exercise.** If, at any time after the issuance of the pre-funded warrants, the holder exercises its pre-funded warrants and a registration statement registering the issuance of the shares of common stock underlying the pre-funded warrants under the Securities Act is not then effective or available (or a prospectus is not available for the

resale of shares of common stock underlying the pre-funded warrants), then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder shall instead receive upon such exercise (either in whole or in part) only the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants. Notwithstanding anything to the contrary, in the event we do not have or maintain an effective registration statement, there are no circumstances that would require us to make any cash payments or net cash settle the pre-funded warrants to the holders.

**Transferability.** Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

**Exchange Listing.** We do not plan on applying to list the pre-funded warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

**Rights as a Stockholder.** Except by virtue of such holder's ownership of shares of our common stock, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the pre-funded warrant.

## Purchase Warrants

**Form.** The purchase warrants will be issued as individual warrant agreements to the investors. You should review the form of purchase warrant, filed as an exhibit to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the purchase warrants.

**Exercisability.** The purchase warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full in immediately available funds for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as described below). A holder (together with its affiliates) may not exercise any portion of the purchase warrant to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's purchase warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the purchase warrants. Purchasers of purchase warrants in this offering may also elect prior to the issuance of the purchase warrants to have the initial exercise limitation set at 9.99% of our outstanding common stock. No fractional shares of common stock will be issued in connection with the exercise of a purchase warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

**Duration and Exercise Price.** The exercise price per whole share of our common stock purchasable upon the exercise of the purchase warrants is \$ (or 110% of the public offering price of the common stock) per share of common stock. The purchase warrants will be immediately exercisable and may be exercised at any time up to the date that is five years after their original issuance. The exercise price of the purchase warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

**Cashless Exercise.** If, at any time after the issuance of the purchase warrants, a holder of the purchase warrants exercises the purchase warrants and a registration statement registering the issuance of the shares of common stock underlying the purchase warrants under the Securities Act is not then effective or available (or a prospectus is not available for the resale of shares of common stock underlying the purchase warrants), then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder shall instead receive upon such exercise (either in whole or in part) only the net number of shares of common stock determined according to a formula set forth in the purchase warrants. Notwithstanding anything to the contrary, in the event we do not have or maintain an effective registration statement, there are no circumstances that would require us to make any cash payments or net cash settle the purchase warrants to the holders.

**Transferability.** Subject to applicable laws, the purchase warrants may be offered for sale, sold, transferred or assigned at the option of the holder upon surrender of the purchase warrant to us together with the appropriate instruments of transfer.

**Exchange Listing.** We do not plan on applying to list the purchase warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the purchase warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the purchase warrants will be entitled to receive upon exercise of the purchase warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the purchase warrants immediately prior to such fundamental transaction.

**Rights as a Stockholder.** Except by virtue of such holder's ownership of shares of our common stock, the holder of a purchase warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the purchase warrant.

## UNDERWRITING

We have entered into an underwriting agreement, dated , 2020, with A.G.P./Alliance Global Partners, acting as the representative of the several underwriters named below, with respect to the shares of common stock and pre-funded warrants, and accompanying purchase warrants. Subject to certain conditions, we have agreed to sell to the underwriters, and the underwriters have severally agreed to purchase, the shares of common stock and pre-funded warrants, and accompanying purchase warrants, provided below opposite their respective names.

Underwriter	Number of shares of common stock	Number of pre-funded warrants	Number of Purchase Warrants
A.G.P./Alliance Global Partners			

**Total:**

The underwriters are committed to purchase all the shares of common stock and the pre-funded warrants, and accompanying purchase warrants, offered by us other than those covered by the option to purchase additional shares and/or purchase warrants as described in the “Over-allotment Option” section below. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters’ obligations are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers’ certificates and legal opinions.

**Discount, Commissions and Expenses**

The underwriters have advised us that they propose to offer the shares of common stock and the pre-funded warrants, and accompanying purchase warrants, at the public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share of common stock and pre-funded warrant, and accompanying purchase warrants. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of \$ per share of common stock and the pre-funded warrant, and accompanying purchase warrants, to certain brokers and dealers. After this offering, the public offering price, concession and reallowance to dealers may be changed by the representative. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus. The shares of common stock and the pre-funded warrants, and accompanying purchase warrants, are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. The underwriters have informed us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

The following table shows the underwriting discount payable to the underwriters by us in connection with this offering:

	Per Share and accompanying Purchase Warrants	Per Pre-Funded Warrant and accompanying Purchase Warrants	Total without Exercise of Over-allotment option	Total with Exercise of Over-allotment option
Public offering price	\$	\$	\$	\$
Underwriting discounts and commissions (7.0%)	\$	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$	\$

We have agreed to reimburse the underwriters up to \$80,000 for their actual and accountable out-of-pocket expenses and up to \$25,000 for their non-accountable expenses. We estimate that expenses payable by us in connection with this offering, including reimbursement of the underwriters’ out-of-pocket expenses, but excluding the underwriting discount referred to above, will be approximately \$200,000.

**Over-allotment Option**

We have granted to the underwriters an option exercisable not later than 45 days after the date of this prospectus to purchase up to an additional 607,287 shares of common stock and/or additional purchase warrants to purchase up to 303,644 shares of common stock (up to 15% of the number of shares of common stock and purchase warrants sold in the primary offering), solely to cover over-allotments, if any, at the public offering price set forth on the cover page hereto less the underwriting discounts and commissions. The underwriters may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares of common stock are purchased pursuant to the over-allotment option, the underwriters will offer these shares of common stock on the same terms as those on which the other securities are being offered.

**Indemnification**

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

**Lock-up Agreements**

Our directors and executive officers have entered into lock-up agreements. Under these agreements, these individuals have agreed, subject to specified exceptions, not to sell or transfer any shares of common stock or securities convertible into, or exchangeable or exercisable for, our shares of common stock during a period ending 90 days after the date of this prospectus, without first obtaining the written consent of A.G.P./Alliance Global Partners. Specifically, these individuals have agreed, in part, not to:

- offer, pledge, sell, contract to sell, grant, 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 shares of common stock, whether now owned or hereafter acquired or with respect to which such person has or later acquires the power of disposition, whether any such transaction is to be settled by delivery of our securities, in cash, or otherwise;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our securities, whether any such transaction is to be settled by delivery of our shares of common stock, in cash or otherwise;
- make any demand for or exercise any right with respect to the registration of any of our securities; or
- publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement relating to any of our securities.

Notwithstanding these limitations, these shares of common stock may be transferred under limited circumstances, including, without limitation, by gift, will or intestate succession.

In addition, we have agreed that, for a period of 90 days from the date of this prospectus, with certain exceptions, we will not (i) 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 of our shares of common stock or any securities convertible into or exercisable or exchangeable for our shares of common stock; (ii) enter into any swap or other

arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our capital, whether any such transaction described in clause (i) or (ii); or (iii) except as provided in the lock-up agreement, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares or securities convertible into or exercisable or exchangeable for shares or any other of our securities; or (d) publicly disclose the intention to do any of the foregoing for a period commencing on the date hereof and ending 90 days after the closing date of the offering.

### **Stabilization**

In connection with this offering, the underwriters may engage in over-allotment transactions, syndicate-covering transactions, stabilizing transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares, so long as the stabilizing bids do not exceed a specified maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares while the offering is in progress.
- Over-allotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position, which may be either a covered short position or a naked short position. In a covered short position, the number of shares of common stock over-allotted by the underwriters is not greater than the number of shares of common stock that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option and/or purchasing common stock in the open market.

---

23

- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of common stock to close out the short position, the underwriters will consider, among other things, the price of common stock available for purchase in the open market as compared to the price at which they may purchase common stock through exercise of the over-allotment option. If the underwriters sell more shares of common stock than could be covered by exercise of the over-allotment option, and, therefore, have a naked short position, the position can be closed out only by buying common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions.

Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the prices of our securities. These transactions may occur on the Nasdaq Capital Market or on any other trading market. If any of these transactions are commenced, they may be discontinued without notice at any time.

### **Passive Market Making**

In connection with this offering, the underwriters and any selling group members may engage in passive market making transactions in our common shares on Nasdaq in accordance with Rule 103 of Regulation M under the Exchange Act during a period before the commencement of offers or sales of common shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specified purchase limits are exceeded.

### **Electronic Distribution**

This prospectus in electronic format may be made available on websites or through other online services maintained by one or more of the underwriters, or by their affiliates. Other than this prospectus in electronic format, the information on any underwriter's website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

### **Other**

From time to time, certain of the underwriters and/or their affiliates may in the future provide, various investment banking and other financial services for us for which services they may in the future receive, customary fees. In the course of their businesses, the underwriters and their affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the underwriters and their affiliates may at any time hold long or short positions in such securities or loans.

---

24

### **Offer restrictions outside the United States**

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus and the accompanying prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

### **LEGAL MATTERS**

The validity of the securities offered hereby will be passed upon for us by Schiff Hardin LLP, Washington, DC. Certain legal matters in connection with this offering will be passed upon for the underwriters by McDermott Will & Emery LLP, New York, New York.

## EXPERTS

The financial statements as of December 31, 2019 and 2018 incorporated by reference in this prospectus have been audited by MaloneBailey, LLP, an independent registered public accounting firm, given on the authority of such firm as experts in auditing and accounting.

### INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2019, filed with the SEC on March 12, 2020;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended [March 31, 2020](#), filed with the SEC filed with the SEC on May 15, 2020; [June 30, 2020](#), filed with the SEC filed with the SEC on August 10, 2020; and [September 30, 2020](#), filed with the SEC filed with the SEC on November 12, 2020;
- our Current Reports on Form 8-K filed with the SEC on [January 16, 2020](#) (the second Form 8-K filed on such date); [March 26, 2020](#); [May 18, 2020](#); [May 27, 2020](#); [May 28, 2020](#); [June 9, 2020](#); [June 11, 2020](#); [September 4, 2020](#); [September 21, 2020](#); and [December 21, 2020](#), in each case to the extent the information in such reports is filed and not furnished;
- our Definitive Proxy Statement on [Schedule 14A](#) filed on April 24, 2020; and
- the description of our common stock contained in our registration statement on [Form 8-A](#) filed with the SEC on November 5, 2019, including any amendments or reports filed for the purposes of updating this description.

---

25

Additionally, all documents filed by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after (i) the date of the initial registration statement and prior to effectiveness of the registration statement, and (ii) the date of this prospectus and before the termination or completion of any offering hereunder, shall be deemed to be incorporated by reference into this prospectus from the respective dates of filing of such documents, except that we do not incorporate any document or portion of a document that is “furnished” to the SEC, but not deemed “filed.”

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to CNS Pharmaceuticals, Inc., Attn: Corporate Secretary, 2100 West Loop South, Suite 900, Houston, TX 77027.

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

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

### WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act for the shares of common stock being offered by this prospectus. This prospectus, which is part of the registration statement, does not contain all of the information included in the registration statement and the exhibits. For further information about us and the common stock offered by this prospectus, you should refer to the registration statement and its exhibits. References in this prospectus to any of our contracts or other documents are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract or document. SEC filings are also available to the public at the SEC’s website at [www.sec.gov](http://www.sec.gov).

We are subject to the reporting and information requirements of the Exchange Act and, as a result, we file periodic and current reports, proxy statements and other information with the SEC. We make our periodic reports and other information filed with or furnished to the SEC, available, free of charge, through our website as soon as reasonably practicable after those reports and other information are filed with or furnished to the SEC. Additionally, these periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above.

---

26

**4,048,583 Shares of Common Stock**

**Pre-Funded Warrants to Purchase Up to 4,048,583 Shares of Common Stock**

# Warrants to Purchase Up to 2,024,292 Shares of Common Stock

## CNS Pharmaceuticals, Inc.

### PROSPECTUS

---

, 2020

### A.G.P.

---

### PART II

#### INFORMATION NOT REQUIRED IN PROSPECTUS

##### Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated costs and expenses to be incurred in connection with the issuance and distribution of the securities of CNS Pharmaceuticals, Inc. (the "Registrant") which are registered under this Registration Statement on Form S-1 (this "Registration Statement"), other than underwriting discounts and commissions. All amounts are estimates except the Securities and Exchange Commission registration fee and the Financial Industry Regulatory Authority, Inc. filing fee.

The following expenses will be borne solely by the Registrant.

	<u>Amount to be Paid</u>
SEC Registration fee	\$ 1,945
Financial Industry Regulatory Authority, Inc. filing fee	1,650
Printing and engraving expenses	5,000
Legal fees and expenses	150,000
Accounting fees and expenses	30,000
Transfer Agent's fees	5,000
Miscellaneous fees and expenses	10,000
Total	<u>\$ 203,595</u>

##### Item 14. Indemnification of Directors and Officers.

Section 78.138 of the Nevada Revised Statute provides that a director or officer is not individually liable to the corporation or its stockholders or creditors for any damages as a result of any act or failure to act in his capacity as a director or officer unless it is proven that (1) his act or failure to act constituted a breach of his fiduciary duties as a director or officer and (2) his breach of those duties involved intentional misconduct, fraud or a knowing violation of law.

This provision is intended to afford directors and officers protection against and to limit their potential liability for monetary damages resulting from suits alleging a breach of the duty of care by a director or officer. As a consequence of this provision, stockholders of our company will be unable to recover monetary damages against directors or officers for action taken by them that may constitute negligence or gross negligence in performance of their duties unless such conduct falls within one of the foregoing exceptions. The provision, however, does not alter the applicable standards governing a director's or officer's fiduciary duty and does not eliminate or limit the right of our company or any stockholder to obtain an injunction or any other type of non-monetary relief in the event of a breach of fiduciary duty.

The Registrant's Articles of Incorporation, as amended, and amended and restated bylaws provide for indemnification of directors, officers, employees or agents of the Registrant to the fullest extent permitted by Nevada law (as amended from time to time). Section 78.7502 of the Nevada Revised Statute provides that such indemnification may only be provided if the person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interest of the Registrant and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

##### Item 15. Recent Sales of Unregistered Securities.

Except as set forth below, in the three years preceding the filing of this Registration Statement, the Registrant has not issued any securities that were not registered under the Securities Act:

Upon the formation of CNS Pharmaceuticals, Inc., for services rendered the Registrant issued 8,829,000 shares of common stock to entities controlled by the Registrant's founder, Dr. Waldemar Priebe.

In July 2017, the Registrant entered into a consulting agreement with an entity controlled by Matthew Lourie pursuant to which Mr. Lourie agreed to serve as the Registrant's Chief Financial Officer. In connection with the consulting agreement, the Registrant agreed that Mr. Lourie would purchase 15,000 shares of common stock at a purchase price of \$0.001 per share; provided that if Mr. Lourie terminates his services with the Registrant, the Registrant has certain repurchase rights. In November 2017, the Registrant issued an additional 15,000 shares of common stock to Mr. Lourie for services. These shares are subject to same buyback provision as discussed above.

In September 2017, in connection with John Climaco's employment agreement, the Registrant agreed that Mr. Climaco would purchase 900,000 shares of common stock at a purchase price of \$0.001 per share; provided that if Mr. Climaco's employment with the Registrant is terminated the Registrant has certain repurchase rights.

In August 2017, the Registrant issued 10% convertible notes in an aggregate of \$975 in principal amount of convertible notes. The note holders also received in the aggregate warrants to purchase 289,575 shares of common stock at an exercise price of \$11.00 per share. In August 2017, the Registrant also issued 10% convertible notes in an aggregate of \$23,450 in principal amount of convertible notes. The note holders also received in the aggregate warrants to purchase 504,644 shares of common stock at an exercise price of \$11.00 per share. In September 2017, the Registrant issued 10% convertible notes in an aggregate of \$62,400 in principal amount of convertible notes. The note holders also received in the aggregate warrants to purchase 411,840 shares of our common stock at an exercise price of \$11.00 per share. On December 31, 2018, the Company amended the 2017 convertible notes to allow the notes to be converted prior to the Company's IPO at the holder's option. Certain debtholders then exercised their right to convert the outstanding principal and accrued interest of their outstanding notes on December 31, 2018. A total of \$38,670 of outstanding principal and \$3,128 of accrued interest was converted into 2,158,500 shares of common stock. Additionally, certain note holders entered into settlement agreements to extinguish their remaining principal balance of \$48,155 and remaining accrued interest of \$8,434 in exchange for 2,454,071 warrants to purchase common stock at an exercise price of \$0.70 per share for a term of five years.

In December 2017, the Registrant obtained the rights to a worldwide, exclusive royalty-bearing, license to the chemical compound commonly known as Berubicin from Houston Pharmaceuticals, Inc. In the license agreement, the Registrant agreed to issue Houston Pharmaceuticals, Inc. 200,000 shares of common stock.

Between December 2017 and March 2018, the Registrant sold 327,004 shares of common stock at \$1.50 per share in a private placement.

In March 2018, the Registrant commenced an offering pursuant to Regulation CF of the Securities Act pursuant to which it offered units of SAFE securities. The offering was terminated on June 11, 2018 and the Registrant issued \$628,558 of SAFE securities to investors and \$12,571 of SAFE securities as commission fee to a vendor. Pursuant to the terms of the SAFE securities, if the Registrant completes this offering and becomes listed on the Nasdaq Stock Market, the purchaser of the SAFE security will automatically receive a number of shares of common stock equal to the purchase amount divided by the product of (a) 84% multiplied by (b) the public offering price per share in this offering.

On June 15, 2018, the Registrant entered into an agreement to issue 10% convertible notes in an aggregate of \$300,000 in principal amount of convertible notes, which principal and accrued interest will automatically convert into shares of common stock upon the closing of this offering at a conversion rate of \$1.50 per share.

In June and July 2019, the Registrant sold 817,500 shares of common stock at \$2.00 per share in a private placement.

On September 15, 2020, the Registrant entered into a Purchase Agreement with Lincoln Park Capital Fund, LLC, or Lincoln Park, which provides that, upon the terms and subject to the conditions and limitations set forth in the agreement, Lincoln Park is committed to purchase up to an aggregate of \$15.0 million shares of the Registrant's common stock over the 36-month term of the agreement. The Registrant issued 201,991 shares of its common stock to Lincoln Park in consideration for entering into the agreement.

All of the securities above were issued in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder, other than the SAFE securities which were issued pursuant to Regulation CF of the Securities Act.

## Item 16. Exhibits and Financial Statement Schedules.

### (a) Exhibits:

Exhibit Number	Description
1.1 *	<a href="#">Form of Underwriting Agreement</a>
3.1	<a href="#">Amended and Restated Articles of Incorporation of CNS Pharmaceuticals, Inc.</a> (filed as exhibit 3.1 to the Company's Form 10-Q filed May 15, 2020)
3.2	<a href="#">Amended and Restated Bylaws of CNS Pharmaceuticals, Inc.</a> (filed as exhibit 2.2 to the Company's Form 1-A file no. 024-10855)
4.1	<a href="#">Form of convertible promissory note issued to debt holders</a> (filed as exhibit 3.1 to the Company's Form 1-A file no. 024-10855)
4.2	<a href="#">Form of warrant issued to convertible debt holders</a> (filed as exhibit 3.2 to the Company's Form 1-A file no. 024-10855)
4.3	<a href="#">Form of Warrant issued to underwriter in IPO</a> (filed as exhibit 3.4 to the Company's Form 1-A Amendment file no. 024-10855)
4.4 ***	<a href="#">Form of Pre-Funded Warrant</a>
4.5 *	<a href="#">Form of Purchase Warrant</a>
5.1 *	<a href="#">Opinion of Schiff Hardin LLP</a>
10.1	<a href="#">Amended And Restated Patent License Agreement effective as of December 28, 2017 between CNS Pharmaceuticals, Inc. and Houston Pharmaceuticals, Inc.</a> (filed as exhibit 6.1 to the Company's Form 1-A file no. 024-10855)
10.2	<a href="#">Collaboration and Asset Purchase Agreement between CNS Pharmaceuticals, Inc. and Reata Pharmaceuticals, Inc. dated November 21, 2017</a> (filed as exhibit 6.2 to the Company's Form 1-A file no. 024-10855)
10.3 **	<a href="#">2017 Stock Plan of CNS Pharmaceuticals, Inc.</a> (filed as exhibit 6.3 to the Company's Form 1-A file no. 024-10855)
10.4 **	<a href="#">Employment Agreement between CNS Pharmaceuticals, Inc. and John M. Climaco dated September 1, 2017</a> (filed as exhibit 6.4 to the Company's Form 1-A file no. 024-10855)
10.5 **	<a href="#">Consulting Agreement between CNS Pharmaceuticals, Inc. and Fresh Notion Financial Services dated July 27, 2017</a> (filed as exhibit 6.5 to the Company's Form 1-A file no. 024-10855)
10.6	<a href="#">Sublicense Agreement between CNS Pharmaceuticals, Inc. and WPD Pharmaceuticals, Inc. dated August 30, 2018</a> (filed as exhibit 6.6 to the Company's Form 1-A Amendment file no. 024-10855)
10.7	<a href="#">Sublicense Agreement between CNS Pharmaceuticals, Inc. and Animal Life Sciences, LLC. dated August 31, 2018</a> (filed as exhibit 6.7 to the Company's Form 1-A Amendment file no. 024-10855)
10.8 **	<a href="#">Employment Letter between CNS Pharmaceuticals, Inc. and Donald Picker</a> (filed as exhibit 10.8 to the Company's Form 1-A Amendment file no. 024-10855)
10.9 **	<a href="#">Employment Letter between CNS Pharmaceuticals, Inc. and Sandra Silberman</a> (filed as exhibit 10.9 to the Company's Form 1-A Amendment file no. 024-10855)
10.10 **	<a href="#">Employment Agreement between CNS Pharmaceuticals, Inc. and Christopher Downs dated September 14, 2019</a> (filed as exhibit 10.10 to the Company's Form S-1/A Amendment file no. 333-232443)
10.11 +	<a href="#">Patent and Technology License Agreement with The Board of Regents of The University of Texas System, an agency of the State of Texas, on behalf of The University of Texas M. D. Anderson Cancer Center, dated January 10, 2020</a> (filed as exhibit 10.11 to the Company's Form 10-K filed March 12, 2020)

- 10.12 [Development Agreement between CNS Pharmaceuticals, Inc. and WPD Pharmaceuticals dated March 20, 2020](#)(filed as exhibit 10.1 to the Company's Form 8-K filed March 26, 2020)
- 10.13\*\* [2020 Stock Plan of CNS Pharmaceuticals, Inc.](#) (filed as exhibit 99.2 to the Company's Form S-8, file no. 333-239998, filed on July 22, 2020)
- 10.14\*\* [Amendment to Employment Agreement between CNS Pharmaceuticals, Inc. and John Climaco dated September 1, 2020](#)(filed as exhibit 99.1 to the Company's Form 8-K filed September 4, 2020)
- 10.15 [Purchase Agreement, dated as of September 15, 2020, by and between the Company and Lincoln Park Capital Fund, LLC](#)(filed as exhibit 10.1 to the Company's Form 8-K filed September 21, 2020)
- 10.16 [Registration Rights Agreement, dated as of September 15, 2020, by and between the Company and Lincoln Park Capital Fund, LLC](#)(filed as exhibit 10.2 to the Company's Form 8-K filed September 21, 2020)
- 23.1 \* [Consent of MaloneBailey LLP](#)
- 23.2 \* [Consent of Schiff Hardin LLP](#) (included in Exhibit 5.1)
- 24.1 [Power of Attorney](#) (previously included on signature page)

\* Filed herewith

\*\* Management contract or compensatory plan, contract or arrangement.

\*\*\* Previously filed.

+ Pursuant to Item 601(b)(10)(iv) of Regulation S-K promulgated by the SEC, certain portions of this exhibit have been redacted. The Company hereby agrees to furnish supplementally to the SEC, upon its request, an unredacted copy of this exhibit.

---

II-3

(b) **Consolidated Financial Statement Schedules:** All schedules are omitted because the required information is inapplicable or the information is presented in the consolidated financial statements and the related notes.

#### Item 17. Undertakings

(a) The undersigned Registrant hereby undertakes that:

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

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

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

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

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

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

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

(4) That, for the purpose of determining liability under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§230.424 of this chapter);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

---

II-4

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

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

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions referenced in Item 14 of this Registration Statement, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange

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

(d) The undersigned Registrant hereby undertakes that:

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

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-5

### SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, Texas, on December 22, 2020.

CNS PHARMACEUTICALS, INC.  
(Registrant)

By: /s/ John Climaco  
John Climaco  
Director and Chief Executive Officer

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

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ John Climaco</u> John Climaco	President, Chief Executive Officer and Director (Principal Executive Officer)	December 22, 2020
<u>/s/ Christopher Downs</u> Christopher Downs	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	December 22, 2020
<u>*</u> Jerzy (George) Gumulka	Director	December 22, 2020
<u>*</u> Carl Evans	Director	December 22, 2020
<u>*</u> Jeffry Keyes	Director	December 22, 2020
<u>*</u> Andrzej Andraczke	Director	

\* Pursuant to power of attorney

By: /s/ Christopher Downs  
Christopher Downs  
Attorney-in-fact

II-6

**UNDERWRITING AGREEMENT**  
**between**  
**CNS PHARMACEUTICALS, INC.**  
**and**  
**A.G.P./ALLIANCE GLOBAL PARTNERS,**  
**as Representative of the Several Underwriters**

1

---

**CNS PHARMACEUTICALS, INC.**  
**UNDERWRITING AGREEMENT**

New York, New York  
 December [ \* ], 2020

A.G.P./Alliance Global Partners  
 As Representative of the several Underwriters named on Schedule 1 attached hereto  
 590 Madison Avenue, 36<sup>th</sup> Floor  
 New York, New York 10022

Ladies and Gentlemen:

The undersigned, CNS Pharmaceuticals, Inc., a Nevada corporation (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement (as hereinafter defined) as being subsidiaries or affiliates of CNS Pharmaceuticals, Inc., the “**Company**”), hereby confirms its agreement (this “**Agreement**”) with A.G.P./Alliance Global Partners (hereinafter referred to as “**you**” (including its correlatives) or the “**Representative**”) and with the other underwriters named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the “**Underwriters**” or, individually, an “**Underwriter**”) as follows:

1. **Purchase and Sale of Securities**

1.1 **Firm Securities**

1.1.1. **Nature and Purchase of Securities**

(i) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the several Underwriters, (a) an aggregate of [ \* ] shares (the “**Firm Shares**”) of the Company’s common stock, par value \$0.001 per share (the “**Common Stock**”), (b) an aggregate of [ \* ] pre-funded warrants (the “**Pre-Funded Warrants**”) in the form filed as an exhibit to the Registration Statement (as hereinafter defined) (the “**Pre-Funded Warrant Agreement**”) exercisable into an aggregate of [ \* ] shares of Common Stock (the “**Pre-Funded Warrant Shares**”), and (c) Common Stock purchase warrants (the “**Firm Warrants**” and together with the Option Warrants (as hereinafter defined), the “**Warrants**”) in the form filed as an exhibit to the Registration Statement (as hereinafter defined) (the “**Warrant Agreement**”) to purchase up to an aggregate of [ \* ] shares of Common Stock (the “**Common Warrant Shares**” and together with the Pre-Funded Warrant Shares, the “**Warrant Shares**”), which shall have an exercise price of \$[ \* ]. The Firm Shares, the Firm Warrants and the Pre-Funded Warrants are referred to herein as the “**Firm Securities**.”

(ii) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Firm Securities set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof at a purchase price of \$[ \* ] per share of Common Stock (93% of the per Firm Share offering price), at a purchase price of \$[ \* ] per Warrant and \$[ \* ] per Pre-Funded Warrant (93% of the per Pre-Funded Warrant offering price). The Firm Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (as defined in Section 2.1.1 hereof).

### 1.1.2. **Firm Securities Payment and Delivery.**

(i) Delivery and payment for the Firm Securities shall be made at 10:00 a.m., Eastern time, on the second (2nd) Business Day following the effective date (the “**Effective Date**”) of the Registration Statement (as defined in Section 2.1.1 below) under the Securities Act of 1933, as amended (the “**Securities Act**”) (or the third (3rd) Business Day following the Effective Date if the pricing for the Offering (as defined in Section 2.1.1 below) occurs after 4:01 p.m., Eastern time on the Effective Date) or at such earlier time as shall be agreed upon by the Representative and the Company, at the offices of McDermott Will & Emery LLP 340 Madison Avenue, New York, NY 10173-1922 (“**Representative Counsel**”), or at such other place (or remotely by facsimile or other electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Firm Securities is called the “**Closing Date**.”

(ii) Payment for the Firm Securities shall be made on the Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the Firm Securities via the Depository Trust Company (“**DTC**”) or as otherwise agreed between the parties. The Firm Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Securities except upon tender of payment by the Representative for all of the Firm Securities. The term “**Business Day**” means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

### 1.2 **Over-allotment Option.**

1.2.1. **Option Securities.** For the purposes of covering any over-allotments in connection with the distribution and sale of the Firm Securities, the Company hereby grants to the Underwriters an option (the “**Over-Allotment Option**”) to purchase up to an additional [ ] shares of Common Stock from the Company, representing fifteen percent (15%) of the Firm Shares sold in the offering together with the Pre-Funded Warrant Shares (the “**Option Shares**”), and/or (b) warrants to purchase up to [ ] shares of Common Stock from the Company, representing fifteen percent (15%) of the Firm Warrants (the “**Option Warrants**”) and together with the Option Shares, the “**Option Securities**”). The purchase price to be paid per Option Security shall be equal to the price per applicable Firm Security set forth in Section 1.1.1 hereof. The Firm Securities and the Option Securities are hereinafter referred to together as the “**Public Securities**.” The offering and sale of the Public Securities is hereinafter referred to as the “**Offering**.”

1.2.2. **Exercise of Option.** The Over-allotment Option granted pursuant to Section 1.2.1 hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Securities within forty-five (45) days after the date of the Prospectus (as defined below). The Underwriters shall not be under any obligation to purchase any Option Securities prior to the exercise of the Over-allotment Option. The Over-allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Securities to be purchased and the date and time for delivery of and payment for the Option Securities (the “**Option Closing Date**”), which shall not be later than five (5) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Representative Counsel, or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Securities does not occur on the Closing Date, the Option Closing Date will be as set forth in the notice. Upon exercise of the Over-allotment Option with respect to all or any portion of the Option Securities, subject to the terms and conditions set forth herein, (i) the Company shall become obligated to sell to the Underwriters the number of Option Securities specified in such notice and (ii) each of the Underwriters, acting severally and not jointly, shall purchase that portion of the total number of Option Securities then being purchased as set forth in Schedule 1 opposite the name of such Underwriter.

1.2.3. **Payment and Delivery.** Payment for the Option Securities shall be made on the Option Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery to you of certificates (in form and substance satisfactory to the Underwriters) representing the Option Securities (or through the facilities of DTC) for the account of the Underwriters. The Option Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Option Closing Date. The Company shall not be obligated to sell or deliver the Option Securities except upon tender of payment by the Representative for applicable Option Securities.

2. **Representations and Warranties of the Company.** The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below), as of the Closing Date and as of the Option Closing Date, as follows:

#### 2.1 **Filing of Registration Statement.**

2.1.1. **Pursuant to the Securities Act.** The Company has filed with the U.S. Securities and Exchange Commission (the “**Commission**”) a registration statement, and an amendment or amendments thereto, on Form S-1 (File No. 333-251530), including any related prospectus or prospectuses, for the registration of the sale of Public Securities under the Securities Act, which registration statement and amendment or amendments have been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission promulgated thereunder (the “**Securities Act Regulations**”) and contains and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial statements, schedules, exhibits and all other documents filed as a part thereof or incorporated therein and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the “**Rule 430A Information**”), is referred to herein as the “**Registration Statement**.” If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term “**Registration Statement**” shall include such registration statement filed pursuant to Rule 462(b) The Registration Statement has been declared effective by the Commission on the date hereof.

Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a “**Preliminary Prospectus**.” The Preliminary Prospectus, subject to completion, dated December [ ], 2020, which was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the “**Pricing Prospectus**.” The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the “**Prospectus**.” Any reference to the “**most recent Preliminary Prospectus**” shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

“**Applicable Time**” means [ ] [a.m./p.m.], Eastern Time, on the date of this Agreement.

“**Issuer Free Writing Prospectus**” means any “issuer free writing prospectus,” as defined in Rule 433 of the Securities Act Regulations (“**Rule 433**”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the Securities Act Regulations) relating to the Public Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Public Securities or of the Offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records

pursuant to Rule 433(g).

“**Issuer General Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433), as evidenced by its being specified in Schedule 2-B hereto.

“**Issuer Limited Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

“**Pricing Disclosure Package**” means any Issuer General Use Free Writing Prospectus issued at or prior to the Applicable Time, the Pricing Prospectus and the information included on Schedule 2-A hereto, all considered together.

---

4

2.1.2. **Pursuant to the Exchange Act** The shares of Common Stock are registered pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”). The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating such registration.

2.2 *Intentionally omitted.*

2.3 **No Stop Orders, etc.** Neither the Commission nor, to the Company’s knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company’s knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) from the Commission for additional information.

2.4 **Stock Exchange Listing.** The shares of Common Stock are listed on The Nasdaq Capital Market (“**Nasdaq**” or the “**Exchange**”), and the Company has taken no action designed to, or likely to have the effect of delisting the shares of Common Stock from Nasdaq, nor has the Company received any notification that Nasdaq is contemplating terminating such listing. Except as otherwise disclosed in the Registration Statement, the Prospectus and SEC Reports (as defined below), to the Company’s knowledge, it is in compliance with all applicable listing requirements of Nasdaq. The Company has submitted the Listing of Additional Shares Notification Form with the Exchange with respect to the Offering of the Public Securities.

2.5 **Disclosures in Registration Statement.**

2.5.1. **Compliance with Securities Act and 10b-5 Representation**

(i) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this Offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(iii) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date, or at any Option Closing Date (if any) did not, does not and will not include an untrue statement of a material fact or 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; and each Issuer Limited Use Free Writing Prospectus hereto does not conflict with the information contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, and each such Issuer Limited Use Free Writing Prospectus, as supplemented by and taken together with the Prospectus as of the Applicable Time, did not include an untrue statement of a material fact or 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; provided however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Pricing Prospectus, the Pricing Disclosure Package or the Prospectus or any amendment thereof or supplement thereto. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure contained in the “Underwriting” section of the Prospectus: (a) the information set forth under the sub-captions “Stabilization,” “Passive Market Making,” and “Electronic Distribution”; and (b) the information set forth under the first, second, third and sixth sentences of the section entitled “Discount, Commissions and Expenses” (the “**Underwriters’ Information**”).

---

5

(iv) Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Date, or at any Option Closing Date (if any), 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; provided, however, that this representation and warranty shall not apply to the Underwriters’ Information.

2.5.2. **Disclosure of Agreements.** The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained or incorporated by reference therein, and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement or to be incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, that have not been so described or filed or incorporated by reference. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or (ii) is material to the Company’s business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company’s knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company’s knowledge, any other party is in default thereunder and, to the Company’s knowledge, no event has occurred that, with the

lapse of time or the giving of notice, or both, would constitute a default thereunder except for a default or event which would not reasonably be expected to result in a Material Adverse Effect (as such term is defined in Section 2.5.3 below). To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a "Governmental Entity"), including, without limitation, those relating to environmental laws and regulations.

2.5.3. **Organization and Qualification.** The Company is an entity duly incorporated or otherwise organized, validly existing, and, if applicable under the laws of the jurisdiction in which they are formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose in all material respects as described in the Registration Statement and SEC Reports (as defined below) and to own or lease its properties. The Company is not in violation nor default of any of the provisions of its certificate or articles of incorporation, bylaws or other organizational or charter documents. The Company is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of this Agreement, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under this Agreement (any of (i), (ii) or (iii), a "Material Adverse Effect") and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

2.5.4. **Authorization; Enforcement.** The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, and the consummation by each of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, upon delivery will have been duly executed by the Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

---

6

2.5.5. **No Conflicts.** The execution, delivery and performance by the Company of this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, and the issuance and sale of the Public Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company, or give to others any rights of termination, amendment, anti-dilution or similar adjustments, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company debt or otherwise) or other understanding to which the Company is a party or by which any property or asset of the Company is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company is subject, or by which any property or asset of the Company is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect.

2.5.6. **Filings, Consents and Approvals.** Except as otherwise disclosed in the Registration Statement and the Prospectus, the Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, other than: (i) the filing with the Commission of the Prospectus Supplement, and (ii) application(s) to each applicable Exchange for the listing of the applicable Public Securities for trading thereon in the time and manner required thereby (collectively, the "Required Approvals").

2.5.7. **Issuance of the Public Securities; Registration.** The Public Securities are duly authorized and, when issued and paid for in accordance with this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares are duly authorized and, when issued in accordance with the terms of the Pre-Funded Warrants, the Firm Warrants or the Option Warrants, as applicable, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement.

2.5.8. **Capitalization.** The equity capitalization of the Company is as set forth in the Registration Statement and the Prospectus for the dates so identified under the caption "Capitalization" (other than for subsequent issuances, if any, pursuant to employee benefit plans, or upon the exercise of outstanding options or warrants, in each case described in the Registration Statement and the Prospectus). No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement. Except as set forth in the Registration Statement and the Prospectus, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company is or may become bound to issue additional shares of Common Stock. Except as described in the Registration Statement and the Prospectus, the issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Underwriters) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are no outstanding securities or instruments of the Company that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company is or may become bound to redeem a security of the Company. The Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws where applicable, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Public Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

---

7

2.5.9. **SEC Reports; Financial Statements.** The Company has filed all reports, schedules, forms, statements and other documents required to be filed by

the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus and the Prospectus Supplement, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports complied in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved, except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by generally accepted accounting principles, and fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

2.5.10. **Material Changes; Undisclosed Events, Liabilities or Developments** Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) that are material, individually or in the aggregate, to the Company, or has entered into any transactions not in the ordinary course of business other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company’s financial statements pursuant to generally accepted accounting principles or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information.

2.5.11. **Litigation**. Except as set forth in the Registration Statement, there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) which (i) adversely affects or challenges the legality, validity or enforceability of any of this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement or the Public Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Except as set forth in the Registration Statement, neither the Company, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, which could result in a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act.

2.5.12. **Labor Relations**. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company’s employees is a member of a union that relates to such employee’s relationship with the Company, and the Company is not a party to a collective bargaining agreement, and the Company believes that its relationships with its employees are good. To the knowledge of the Company, no executive officer of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company to any liability with respect to any of the foregoing matters. The Company is in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

2.5.13. **Compliance**. The Company: (i) is and at all times has been in compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, storage or disposal of any product manufactured or distributed by the Company (“Applicable Laws”), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (ii) has not received any notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from any governmental authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (“Authorizations”); (iii) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (iv) has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and have no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding, except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (v) has not received written notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and have no knowledge that any such governmental authority is considering such action, except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (vi) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission).

2.5.14. **Environmental Laws**. The Company (i) is in material compliance with all material federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, “Hazardous Materials”) into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder (“Environmental Laws”); (ii) has received all permits licenses or other approvals required of them under applicable Environmental Laws for their respective businesses; and (iii) is in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect.

2.5.15. **Regulatory Permits**. The Company possesses all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and the Company has not received any notice of proceedings relating to the revocation or modification of any Material Permit.

2.5.16. **Title to Assets**. The Company has good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company, in each case free and clear of all Liens, except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with generally accepted accounting principles and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company is held by them under valid, subsisting and enforceable leases with which

2.5.17. **Intellectual Property.** The Company has, or has rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to so have could have a Material Adverse Effect (collectively, the “**Intellectual Property Rights**”). None of, and the Company has not received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement except as would not reasonably be expected to have a Material Adverse Effect. The Company has not received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as could not have or reasonably be expected to not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable as described in the SEC Reports and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company has taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has no knowledge of any facts that would preclude it from having valid license rights or clear title to the Intellectual Property Rights. The Company has no knowledge that it lacks or will be unable to obtain any rights or licenses to use all Intellectual Property Rights that are necessary to conduct its business.

2.5.18. **Insurance.** The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company is engaged, including, but not limited to, directors and officers insurance coverage. The Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

2.5.19. **Transactions with Affiliates and Employees.** Except as set forth in the Registration Statement, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of \$120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

2.5.20. **Sarbanes-Oxley; Internal Accounting Controls.** The Company is in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. The Company maintains 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 generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management’s general or specific authorization, and (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. The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms. The Company’s certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company as of the end of the period covered by the most recently filed Form 10-K under the Exchange Act (such date, the “**Evaluation Date**”). The Company presented in its most recently filed Form 10-K under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company.

2.5.21. **Certain Fees.** Except as set forth in the Prospectus Supplement, no brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, Underwriter, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement, the Warrant Agreement and Pre-Funded Warrant Agreement. Other than for Persons engaged by any Underwriter, if any, the Underwriters shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement.

2.5.22. **Investment Company.** The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Public Securities, will not be or be an Affiliate of, an “investment company” within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an “investment company” subject to registration under the Investment Company Act of 1940, as amended.

2.5.23. **Registration Rights.** Except as set forth in the Registration Statement, no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company.

2.5.24. **Listing and Maintenance Requirements.** The shares of Common Stock are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the shares of Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company has not, in the 12 months preceding the date hereof, received notice from the Exchange on which the shares of Common Stock are or have been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Exchange. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The shares of Common Stock are currently eligible for electronic transfer through The Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to The Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

2.5.25. **[Reserved].**

2.5.26. **Disclosure.** Except with respect to the material terms and conditions of the transactions contemplated by this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Underwriters or their agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Prospectus Supplement. The Company understands and confirms that the Underwriters will rely on the foregoing representation in effecting transactions in securities of the Company. All of the

disclosure furnished by or on behalf of the Company to the Underwriters regarding the Company, their respective businesses and the transactions contemplated hereby, is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that no Underwriter makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3.2 hereof.

2.5.27. **No Integrated Offering.** Assuming the accuracy of the Underwriters' representations and warranties related thereto, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Public Securities to be integrated with prior offerings by the Company for purposes of (i) the Securities Act, or (ii) any applicable shareholder approval provisions of the Exchange on which any of the securities of the Company are listed or designated.

---

11

2.5.28. **[Reserved].**

2.5.29. **Tax Status.** Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company (i) has made or filed all United States federal, state and local income and all foreign tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim.

2.5.30. **Foreign Corrupt Practices.** Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act.

2.5.31. **Accountants.** The Company's independent registered public accounting firm is as set forth in the Prospectus. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

2.5.32. **Acknowledgment Regarding Underwriters' Purchase of Public Securities.** The Company acknowledges and agrees that each of the Underwriters is acting solely in the capacity of an arm's length purchaser with respect to this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, and the transactions contemplated hereby. The Company further acknowledges that no Underwriter is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any advice given by any Underwriter or any of their respective representatives or agents in connection with this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement, and the transactions contemplated hereby is merely incidental to the Underwriters' purchase of the Public Securities. The Company further represents to each Underwriter that the Company's decision to enter into this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

2.5.33. **Acknowledgment Regarding Underwriter's Trading Activity.** Anything in this Agreement or elsewhere herein to the contrary notwithstanding, it is understood and acknowledged by the Company that: (i) none of the Underwriters has been asked by the Company to agree, nor has any Underwriter agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Public Securities for any specified term; (ii) past or future open market or other transactions by any Underwriter, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Underwriter, and counter-parties in "derivative" transactions to which any such Underwriter is a party, directly or indirectly, presently may have a "short" position in the shares of Common Stock, and (iv) each Underwriter shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Underwriters may engage in hedging activities at various times during the period that the Public Securities are outstanding, and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of this Agreement, the Warrant Agreement and the Pre-Funded Warrant Agreement.

2.5.34. **Regulation M Compliance.** The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Public Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Public Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Company's Underwriter in connection with the placement of the Public Securities.

---

12

2.5.35. **[Reserved].**

2.5.36. **[Reserved].**

2.5.37. **Statistical Information.** The statistical and market and industry-related data included in the Registration Statement, Pricing Disclosure Package and Prospectus are based on or derived from sources which the Company believes to be reliable and accurate or represent the Company's good faith estimates that are made on the basis of data derived from such sources and the Company has obtained the written consent to the use of such data from sources to the extent required.

2.5.38. **Office of Foreign Assets Control.** Neither the Company nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC") and the Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

2.5.39. **U.S. Real Property Holding Corporation.** The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon Underwriter's request.

2.5.40. **Bank Holding Company Act.** Neither the Company nor any of its Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA") and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.

2.5.41. **Money Laundering.** The operations of the Company are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "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 with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

2.5.42. **PFIC Status.** The Company does not believe it is a Passive Foreign Investment Company ("PFIC") within the meaning of Section 1296 of the United States Internal Revenue Code of 1986, as amended, and does not believe it is likely to become a PFIC.

2.5.43. **Stamp or Other Tax.** No stamp or other issuance or transfer taxes or duties are payable by or on behalf of the Underwriters to any political subdivision or taxing authority thereof or therein in connection with the sale and delivery by the Company of the Public Securities to or for the sale and delivery by Public Securities to the Underwriters.

2.5.44. **Lock-Up Agreements.** Schedule 3 hereto contains a complete and accurate list of the Company's directors, officers and each owner of at least 5% of the Company's outstanding shares of Common Stock (or securities convertible or exercisable into shares of Common Stock) (collectively, the "Lock-Up Parties"). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Exhibit A (the "Lock-Up Agreement"), prior to the execution of this Agreement.

---

13

2.5.45. **[Reserved].**

2.5.46. **Integration.** Neither the Company, nor any of its affiliates, nor any person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the Offering to be integrated with prior offerings by the Company for purposes of the Securities Act that would require the registration of any such securities under the Securities Act.

2.5.47. **Initial Submission.** The Company completed its initial confidential submission of the registration statement relating to the Offering with the Commission for nonpublic review prior to the end of the twelfth month following the effective date of the Company's initial Securities Act registration statement or an issuer's Exchange Act Section 12(b) registration statement.

3. **Covenants of the Company.** The Company covenants and agrees as follows:

3.1 **Amendments to Registration Statement.** The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement, the Preliminary Prospectus, the Pricing Disclosure Package or Prospectus proposed to be filed after the date of this Agreement and not file any such amendment or supplement to which the Representative shall reasonably object in writing.

3.2 **Federal Securities Laws.**

3.2.1. **Compliance.** The Company, subject to Section 3.2.2, shall comply with the requirements of Rule 424(b) and Rule 430A of the Securities Act Regulations, and will notify the Representative promptly, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement or any amendment or supplement to any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus shall have been filed and when any post-effective amendment to the Registration Statement shall become effective; (ii) of the receipt of any comments from the Commission; (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, including any document incorporated or deemed to be incorporated by reference therein, or for additional information; (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or of the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the Securities Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company shall use commercially reasonable efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

---

14

3.2.2. **Continued Compliance.** The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations ("Rule 172"), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an 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; (ii) amend or supplement the Pricing Disclosure Package or the Prospectus in order that the Pricing Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities Act Regulations, the Company will promptly (A) give the Representative notice of such event; (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration

Statement, the Pricing Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Underwriters shall reasonably object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1.2 hereof and will furnish the Representative with copies of the related document(s) a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Representative or counsel for the Underwriters shall reasonably object.

3 . 3 **Delivery to the Underwriters of Registration Statements.** The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits and documents filed therewith or incorporated by reference or deemed to be incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3 . 4 **Delivery to the Underwriters of Prospectuses.** The Company has delivered or made available or will deliver or make available to each Underwriter, without charge, as many copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3 . 5 **Events Requiring Notice to the Representative.** The Company shall use commercially reasonable efforts to cause the Registration Statement to remain effective with a current prospectus for at least nine (9) months after the Applicable Time, and shall notify the Representative promptly and confirm the notice in writing: (i) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (ii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (iv) of the receipt of any comments or request for any additional information from the Commission; and (v) of the happening of any event during the period described in this Section 3.5 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in (a) the Registration Statement in order to make the statements therein not misleading, or (b) in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall make every reasonable effort to obtain promptly the lifting of such order.

---

15

3 . 6 **Exchange Act Registration.** For a period of three (3) years after the date of this Agreement, the Company shall use its best efforts to maintain the registration of the shares of Common Stock under the Exchange Act. The Company shall not deregister the shares of Common Stock under the Exchange Act without the prior written consent of the Representative, such consent not to be unreasonably withheld.

3.7 **Free Writing Prospectuses.** The Company agrees that, unless it obtains the prior written consent of the Representative, it shall not make any offer relating to the Public Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided, however, that the Representative shall be deemed to have consented to each Issuer General Use Free Writing Prospectus hereto and any “road show that is a written communication” within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representative. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Underwriters as an “issuer free writing prospectus,” as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or 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 Underwriters and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

3 . 8 . **Review of Financial Statements.** For a period of three (3) years after the date of this Agreement, the Company, at its expense, shall cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company’s financial statements for each of the three fiscal quarters immediately preceding the announcement of any quarterly financial information, provided that such a provision shall not prevent a sale, merger or similar transaction involving the Company.

3.9. **Listing.** The Company shall use commercially reasonable efforts to maintain the listing of the shares of Common Stock on the Exchange for at least three years from the date of this Agreement.

3.10. **Intentionally Omitted.**

3.11. **Reports to the Representative.**

3.11.1. **Periodic Reports, etc.** For a period of two (2) years after the date of this Agreement, the Company shall furnish to the Representative copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Representative: (i) a copy of each periodic report the Company shall be required to file with the Commission under the Exchange Act and the Exchange Act Regulations; (ii) a copy of each Form 8-K prepared and filed by the Company; (iii) five copies of each registration statement filed by the Company under the Securities Act; and (iv) such additional documents and information with respect to the Company and the affairs of any future subsidiaries of the Company as the Representative may from time to time reasonably request; provided the Representative shall sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative and Representative Counsel in connection with the Representative’s receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Representative pursuant to this Section 3.11.1.

---

16

3.11.2. **Transfer Agent; Transfer Sheets.** For a period of three (3) years after the date of this Agreement, the Company shall retain a transfer agent and

registrar acceptable to the Representative (the “Transfer Agent”) and shall furnish to the Representative at the Company’s sole cost and expense such transfer sheets of the Company’s securities as the Representative may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and DTC. Continental Stock Transfer and Trust Company is acceptable to the Representative to act as Transfer Agent for the shares of Common Stock.

3.11.3. **Trading Reports.** During such time as the Public Securities are listed on the Exchange, the Company shall provide to the Representative, at the Company’s expense, such reports published by Exchange relating to price trading of the Public Securities, as the Representative shall reasonably request.

3.12. **Payment of Expenses.** The Company agrees to pay on each of the Closing Date and the Option Closing Date, if any, all expenses incident to the performance of the obligations of the Company under this Agreement, including but not limited to (a) all filing fees and communication expenses relating to the registration of the Public Securities to be sold in this Offering with the Commission; (b) all Public Filing System filing fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Public Securities on the Exchange and on such other stock exchanges as the Company and Representative together determine; (d) all fees, expenses and disbursements relating to the registration or qualification of the Public Securities offered under the “blue sky” securities laws of such states and other jurisdictions as the Representative may reasonably designate (including, without limitation, all filing and registration fees, and the reasonable fees of “blue sky” counsel); (e) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Public Securities under the securities laws of such foreign jurisdictions as the Representative may reasonably designate; (f) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers’ Agreement, Underwriters’ Questionnaire and Power of Attorney), registration statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (g) the costs and expenses of the Company’s public relations firm; (h) the costs of preparing, printing and delivering certificates representing the Public Securities to be offered in this offering; (i) fees and expenses of the transfer agent for the securities; (j) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Representative; (k) the fees and expenses of the Company’s accountant; (l) the fees and expenses of the Company’s legal counsel and other agents and representatives; (m) up to \$80,000 for their actual and accountable out-of-pocket expenses not to exceed (inclusive of any advance paid by the Company) of the out of pocket expenses incurred by the Underwriters including legal fees of counsel to the Underwriters, IPREO software related expenses, background check expenses, tombstones and marketing related expenses, including road show expenses if they are incurred and (n) up to \$25,000 for their non-accountable expenses. Notwithstanding the foregoing, any advance received by the Underwriters will be reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(g)(4)(A). In the event that this Agreement shall not be carried out for any reason whatsoever, except in the case of a default by the Underwriters, pursuant to Section 6.2 below, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable (including the fees and disbursements of Representative Counsel) up to \$80,000 (inclusive of any advance paid by the Company) and upon demand the Company shall pay the full amount thereof to the Underwriters; provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement. The Representative may deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or the Option Closing Date, if any, the expenses set forth herein to be paid by the Company to the Underwriters.

3.13. **Application of Net Proceeds.** The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption “Use of Proceeds” in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

3.14. **Delivery of Earnings Statements to Security Holders.** The Company shall make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth (15<sup>th</sup>) full calendar month following the date of this Agreement, an earnings statement (which need not be certified by independent registered public accounting firm unless required by the Securities Act or the Securities Act Regulations, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve (12) consecutive months beginning after the date of this Agreement.

---

17

3.15. **Stabilization.** Neither the Company nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

3.16. **Internal Controls.** The Company shall maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.17. **Accountants.** As of the date of this Agreement, the Company shall continue to retain a nationally recognized independent registered public accounting firm for a period of at least three (3) years after the date of this Agreement. The Representative acknowledges that MaloneBailey, LLP (the “Auditor”) is acceptable to the Representative.

3.18. **FINRA.** The Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it is or becomes aware that Company or any of its affiliates (within the meaning of FINRA’s Conduct Rule 5121(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA.

3.19. **No Fiduciary Duties.** The Company acknowledges and agrees that the Underwriters’ responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

3.20. **Company Lock-Up Agreements.**

3.20.1. **Restriction on Sales of Capital Stock.** The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 90 days after the date of this Agreement (the “Lock-Up Period”), (i) 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 capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or cause to be filed any registration statement with the Commission relating to the offering of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; or (iii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii) or (iii) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise.

---

18

The restrictions contained in this Section 3.20.1 shall not apply to (i) the shares of Common Stock, the Firm Warrants, the Option Warrants or the Pre-Funded Warrants to be sold hereunder (or the exercise of the Firm Warrants, the Option Warrants or the Pre-Funded Warrants), (ii) the issuance by the Company of shares of Common Stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof, of which the Representative has been advised in writing, provided that such securities outstanding on the date hereof have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities; (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company to employees, officers, consultants or directors of the Company for services rendered to the Company; (iv) the filing of one shelf registration statement on Form S-3 no earlier than 30 days after the Closing Date, (v) the entry into and sales under an agreement in an amount not to exceed \$[ ] related to an at-the-market facility no earlier than 45 days after the Closing Date or (vi) the issuance of shares of Common Stock or other securities issued in connection with a transaction that includes a commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) or any acquisition of assets or not less than a majority or controlling portion of the equity of another entity, provided that the recipient of any such shares of Common Stock and securities issued pursuant to this clause (vi) during the Lock-Up Period shall enter into an agreement in writing with the Representative not to sell, offer, dispose of or otherwise transfer any such shares of Common Stock or securities during such Lock-up Period without the prior written consent of the Representative (which consent may be withheld in its sole discretion).

3.21. **Blue Sky Qualifications.** The Company shall use its commercially reasonable efforts, in cooperation with the Underwriters, if necessary, to qualify the Public Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Public Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

3.22. **Reporting Requirements.** The Company, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and Exchange Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Public Securities as may be required under Rule 463 under the Securities Act Regulations.

3.23. **Smaller Reporting Company and Emerging Growth Company.** As of the time of the initial filing of the Registration Statement and as of the date hereof, the Company was a “smaller reporting company,” as defined in Rule 12b-2 of the Exchange Act Regulations and an “emerging growth company” as defined in Section 2(a)(19) of the Securities Act.

4. **Conditions of Underwriters’ Obligations.** The obligations of the Underwriters to purchase and pay for the Public Securities, as provided herein, shall be subject to (i) the continuing accuracy in all material respects of the representations and warranties of the Company as of the date hereof and as of the Closing Date and the Option Closing Date, if any; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company in all material respects of its obligations hereunder; and (iv) the following conditions:

---

19

#### 4.1 **Regulatory Matters.**

4.1.1. **Effectiveness of Registration Statement; Required Filings.** The Registration Statement has been declared effective by the Commission under the Securities Act and, at the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities Act, no order preventing or suspending the use of any Preliminary Prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company’s knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A under the Securities Act Regulations. The Registration Statement meets the requirements set forth in Rule 415(a)(1)(iii) under the Securities Act with respect to the Warrant Shares and complies with said Rule.

4.1.2. **FINRA Clearance.** On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

4.1.3. **Exchange Stock Market Clearance.** On the Closing Date, the Company’s shares of Common Stock, including the Firm Shares, the Warrant Shares and the Option Securities, shall have been approved for listing on the Exchange, subject only to official notice of issuance.

#### 4.2 **Company Counsel Matters.**

4.2.1. **Closing Date Opinion of Counsel.** On the Closing Date, the Representative shall have received the opinion and negative assurance letter of Schiff Hardin LLP, 100 N. 18<sup>th</sup> Street, Suite 300, Philadelphia, PA 19103, counsel to the Company, dated the Closing Date and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

4.2.2. **Option Closing Date Opinion of Counsel.** On the Option Closing Date, if any, the Representative shall have received the opinion of such counsel listed in Section 4.2.1, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsel in their respective opinion delivered on the Closing Date.

4.2.3. **Reliance.** In rendering such opinions, such counsel may rely as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company; provided that copies of any such statements or certificates shall be delivered to Representative Counsel if requested. The opinions of each of Schiff Hardin LLP and any opinion relied upon by such counsel shall include a statement to the effect that it may be relied upon by Representative Counsel in its opinion delivered to the Underwriters.

---

20

#### 4.3 **Comfort Letters.**

4.3.1. **Cold Comfort Letter.** At the time this Agreement is executed, you shall have received a cold comfort letter containing statements and information of the type customarily included in accountants’ comfort letters with respect to the financial statements and certain financial information contained or incorporated or deemed

incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all respects to you and to the Auditor, dated as of the date of this Agreement.

4.3.2. **Bring-down Comfort Letter.** On the Closing Date and the Option Closing Date, you shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4.3.1, except that the specified date referred to shall be a date not more than three (3) business days prior to the Closing Date or the Option Closing Date, as applicable.

#### 4.4 **Officers' Certificates.**

4.4.1. **Officers' Certificate.** The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date)), of its Chief Executive Officer, and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), any Issuer Free Writing Prospectus as of its date and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the Applicable Time, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the representations and warranties of the Company in this Agreement are true and correct in all material respects and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date (or any Option Closing Date if such date is other than the Closing Date), and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Pricing Disclosure Package, any Material Adverse Effect in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a Material Adverse Effect or a prospective Material Adverse Effect, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company, except as set forth in the Prospectus.

4.4.2. **Secretary's Certificate.** At the Closing Date, and the Option Closing Date, if any, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and the Commission; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

21

4.5. **No Material Changes.** Prior to and on the Closing Date and each Option Closing Date, if any: (i) there shall have been no Material Adverse Effect or development involving a prospective Material Adverse Effect in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any director or officer before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

4.6. **No Material Misstatement or Omission.** The Underwriters shall not have discovered and disclosed to the Company on or prior to the Closing Date and each Option Closing Date, if any, that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Underwriters, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the Registration Statement, the Pricing Disclosure Package or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading.

#### 4.7 **Delivery of Agreements.**

4.7.1. **Lock-Up Agreements.** On or before the date of this Agreement, the Company shall have delivered to the Representative executed copies of the Lock-Up Agreements from each of the persons listed in Schedule 3 hereto.

4.7.2. **Pre-Funded Warrant Agreement.** On the Closing Date, the Company shall have delivered to the Representative executed copies of the Pre-Funded Warrant Agreements.

4.7.3. **[Reserved].**

4.7.4. **Warrant Agreement.** On the Closing Date, the Company shall have delivered to the Representative executed copies of the Warrant Agreements.

4.8. **Additional Documents.** At the Closing Date and at each Option Closing Date (if any) Representative Counsel shall have been furnished with such documents and opinions as they may reasonably require for the purpose of enabling Representative Counsel to deliver an opinion to the Underwriters, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Public Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative Counsel.

22

## 5. **Indemnification.**

## 5.1 Indemnification of the Underwriters.

5.1.1. **General.** Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each of its and their respective directors, officers, members, employees, representatives and agents and each person, if any, who controls any such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the “Underwriter Indemnified Parties,” and each an “Underwriter Indemnified Party”), against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) the Registration Statement, the Pricing Disclosure Package, the Preliminary Prospectus, or the Prospectus (as from time to time each may be amended and supplemented); (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any “road show” or investor presentations made to investors by the Company (whether in person or electronically); or (iii) any application or other document or written communication (in this Section 5, collectively called “application”) executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, the Exchange or any other national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters’ Information. With respect to any untrue statement or omission or alleged untrue statement or omission made in the Pricing Disclosure Package, the indemnity agreement contained in this Section 5.1.1 shall not inure to the benefit of any Underwriter Indemnified Party to the extent that any loss, liability, claim, damage or expense of such Underwriter Indemnified Party results from the fact that a copy of the Prospectus was not given or sent to the person asserting any such loss, liability, claim or damage at or prior to the written confirmation of sale of the Public Securities to such person as required by the Securities Act and the Securities Act Regulations, and if the untrue statement or omission has been corrected in the Prospectus, unless such failure to deliver the Prospectus was a result of non-compliance by the Company with its obligations under Section 3.3 hereof.

5.1.2. **Procedure.** If any action is brought against an Underwriter Indemnified Party in respect of which indemnity may be sought against the Company pursuant to Section 5.1.1, such Underwriter Indemnified Party shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the reasonable approval of such Underwriter Indemnified Party) and payment of actual expenses. Such Underwriter Indemnified Party shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such Underwriter Indemnified Party unless (i) the employment of such counsel at the expense of the Company shall have been authorized in writing by the Company in connection with the defense of such action, or (ii) the Company shall not have employed counsel to have charge of the defense of such action, or (iii) such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to those available to the Company (in which case the Company shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events the reasonable fees and expenses of not more than one additional firm of attorneys selected by the Underwriter Indemnified Party (in addition to local counsel) shall be borne by the Company. Notwithstanding anything to the contrary contained herein, if any Underwriter Indemnified Party shall assume the defense of such action as provided above, the Company shall have the right to approve the terms of any settlement of such action, which approval shall not be unreasonably withheld.

23

5.2 **Indemnification of the Company.** Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to the several Underwriters, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters’ Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5.1.2. The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, or the Prospectus or any Issuer Free Writing Prospectus.

## 5.3 Contribution.

5.3.1. **Contribution Rights.** If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5.1 or 5.2 in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the Offering of the Public Securities, or (ii) if the allocation provided by clause (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 (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, 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, with respect to such Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering of the Public Securities purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of Common Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 5.3.1 were to be 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 into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 5.3.1 shall be deemed to include, for purposes of this Section 5.3.1, 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 5.3.1 in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Offering of the Public Securities 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.

24

5.3.2. **Contribution Procedure.** Within fifteen (15) days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party (“contributing party”), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid 15 days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 5.3.2 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. Each Underwriter’s obligations to contribute pursuant to this Section 5.3 are several and not joint.

6. **Default by an Underwriter.**

6.1 **Default Not Exceeding 10% of Firm Securities or Option Securities** If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Securities or the Option Securities, and if the number of the Firm Securities or the Option Securities with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Securities or the Option Securities that all Underwriters have agreed to purchase hereunder, then such Firm Securities or the Option Securities to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

6.2 **Default Exceeding 10% of Firm Securities or the Option Securities** In the event that the default addressed in Section 6.1 relates to more than 10% of the Firm Securities or the Option Securities, you may in your discretion arrange for yourself or for another party or parties to purchase such Firm Securities or the Option Securities to which such default relates on the terms contained herein. If, within one (1) Business Day after such default relating to more than 10% of the Firm Securities or the Option Securities, you do not arrange for the purchase of such Firm Securities or the Option Securities, then the Company shall be entitled to a further period of one (1) Business Day within which to procure another party or parties satisfactory to you to purchase said Firm Securities or the Option Securities on such terms. In the event that neither you nor the Company arrange for the purchase of the Firm Securities or the Option Securities to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by you or the Company without liability on the part of the Company (except as provided in Sections 3.11 and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided, *however*, that if such default occurs with respect to the Option Securities, this Agreement will not terminate as to the Firm Securities; and *provided, further*, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

6.3 **Postponement of Closing Date.** In the event that the Firm Securities or Option Securities to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, you or the Company shall have the right to postpone the Closing Date or Option Closing Date for a reasonable period, but not in any event exceeding five (5) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term “Underwriter” as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such shares of Common Stock.

---

25

7. **Additional Covenants.**

7.1 **Board Composition and Board Designations.** The Company shall ensure that: (i) the qualifications of the persons serving as members of the Board of Directors and the overall composition of the Board comply with the Sarbanes-Oxley Act, with the Exchange Act and with the listing rules of the Exchange or any other national securities exchange, as the case may be, in the event the Company seeks to have its Public Securities listed on another exchange or quoted on an automated quotation system, and (ii) if applicable, at least one member of the Audit Committee of the Board of Directors qualifies as an “audit committee financial expert,” under Regulation S-K and the listing rules of the Exchange.

8. **Effective Date of this Agreement and Termination Thereof.**

8.1 **Effective Date.** This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

8.2 **Termination.** The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in your opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or the Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction; or (iii) if the United States shall have become involved in a new war or an increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in your opinion, make it inadvisable to proceed with the delivery of the Firm Securities or Option Securities; or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have become aware after the date hereof of such a Material Adverse Effect in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative’s judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities.

8.3 **[reserved].**

8.4 **Survival of Indemnification.** Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

8.5 **Representations, Warranties, Agreements to Survive.** All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company or (ii) delivery of and payment for the Public Securities.

---

26

9. **Miscellaneous.**

9.1 **Notices.** All communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be mailed (registered or certified mail, return receipt requested), personally delivered or sent by facsimile transmission and confirmed and shall be deemed given when so delivered or faxed and confirmed or if mailed, two (2) days after such mailing.

If to the Representative:

A.G.P./Alliance Global Partners  
590 Madison Avenue, 36<sup>th</sup> Floor  
New York, New York 10022  
Attention: Mr. David Bocchi, Managing Director of Investment Banking  
Fax No.: (212) 813-1047

with a copy (which shall not constitute notice) to:

McDermott Will & Emery LLP  
340 Madison Avenue,  
New York, NY 10173-1922  
Attention: Robert Cohen  
Email: rcohen@mwe.com

If to the Company:

CNS Pharmaceuticals, Inc.  
2100 West Loop South, Suite 800  
Houston, TX 77027  
Attention:   
Fax No.:

with a copy (which shall not constitute notice) to:

Schiff Hardin LLP  
100 N. 18th Street  
Suite 300  
Philadelphia, PA 19103  
Attention: Cavas S. Pavri  
Email: cpavri@schiffhardin.com

9.2 **Headings.** The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

9.3 **Amendment.** This Agreement may only be amended by a written instrument executed by each of the parties hereto.

9.4 **Entire Agreement.** This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

9.5 **Binding Effect.** This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

9.6 **Governing Law; Consent to Jurisdiction; Trial by Jury.** This Agreement shall be governed by and construed and enforced in accordance with the laws /of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.1 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company agrees that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.7 **Execution in Counterparts.** This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by facsimile or email/pdf transmission shall constitute valid and sufficient delivery thereof.

9.8 **Waiver, etc.** The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between us.

Very truly yours,

CNS PHARMACEUTICALS, INC.

By: \_\_\_\_\_

Name:

Title:

Confirmed as of the date first written above mentioned, on behalf of itself and as Representative of the several Underwriters named on Schedule 1 hereto:

A.G.P./ALLIANCE GLOBAL PARTNERS

By: \_\_\_\_\_

Name: Thomas J. Higgins

Title: Managing Director, Investment Banking

[Signature Page]  
Underwriting Agreement

**SCHEDULE 1**

<b>Underwriter</b>	<b>Total Number of Firm Shares and Firm Warrants to be Purchased</b>	<b>Total Number of Pre-Funded Shares and Firm Warrants to be Purchased</b>	<b>Number of Additional Shares and Option Warrants to be Purchased if the Over-Allotment Option is Fully Exercised by the Representative</b>
<b>A.G.P./Alliance Global Partners</b>			
<b>TOTAL</b>			

**SCHEDULE 2-A**

**Pricing Information**

Number of Firm Shares:

Number of Pre-Funded Warrants:

Number of Firm Warrants:

Number of Option Shares:

Number of Option Warrants:

Public Offering Price per Firm Share:

Public Offering Price per Pre-Funded Warrant:

Public Offering Price per Firm Warrant:

Firm Warrant Exercise Price:

Underwriting Discount per Firm Share:

Underwriting Discount per Pre-Funded Warrant:

Underwriting Discount per Firm Warrant:

Proceeds to Company per Firm Share (before expenses):

Proceeds to Company per Pre-Funded Warrant (before expenses):

Proceeds to Company per Firm Warrant (before expenses):

**SCHEDULE 2-B**

**Issuer General Use Free Writing Prospectus**

None.

SCHEDULE 3

**List of Lock-Up Parties**

John Climaco  
Christopher S. Downs  
Sandra Silberman  
Donald Picker  
Jerzy (George) Gumulka  
Jeffrey R. Keyes  
Andrzej Andraczke  
Carl Evans  
Waldemar Priebe

---

Sch 3-1

---

**EXHIBIT A**

**Form of Lock-Up Agreement**

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

A.G.P./Alliance Global Partners  
590 Madison Avenue, 36th Floor  
New York, New York 10022

To the Underwriters (as defined below)

Re: CNS Pharmaceuticals, Inc.

Ladies and Gentlemen:

This Agreement (the "**Lock-Up Letter Agreement**") is being delivered to you in order to induce you to enter into the Underwriting Agreement (the "**Underwriting Agreement**") between CNS Pharmaceuticals, Inc., a Nevada corporation (the "**Company**"), and A.G.P./Alliance Global Partners (the "**Representative**"), relating to the proposed offering (the "**Offering**") of the Company's shares of common stock, par value \$0.001 per share (the "**Shares**").

In consideration of the execution of the Underwriting Agreement by and between the Company and the Representative, and for other good and valuable consideration, the undersigned hereby irrevocably agrees that, without the prior written consent of the Representative, the undersigned will not, directly or indirectly, (a) offer for sale, sell, pledge, 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 (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) any Shares (including, without limitation, Shares that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and Shares that may be issued upon exercise of any options, or warrants) or securities convertible into or exercisable or exchangeable for Shares; (b) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of Shares, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Shares or other securities, in cash or otherwise; (c) except as provided for below, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any Shares or securities convertible into or exercisable or exchangeable for Shares or any other securities of the Company; or (d) publicly disclose the intention to do any of the foregoing for a period commencing on the date hereof and ending ninety (90) days after the closing date of the Offering (such period, the "**Lock-Up Period**").

---

Sch 3-2

---

The foregoing paragraph shall not apply to (a) transactions relating to Shares or other securities acquired in the open market after the completion of the Offering, *provided that* no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), shall be required or shall be voluntarily made in connection with such transfers; (b) bona fide gifts of shares of any class of the Company’s capital stock or any security convertible into Shares, in each case that are made exclusively between and among the undersigned or members of the undersigned’s family, or affiliates of the undersigned, including its partners (if a partnership) or members (if a limited liability company); (c) any transfer of Shares or any security convertible into Shares by will or intestate succession upon the death of the undersigned; (d) transfer of Shares or any security convertible into Shares to an immediate family member (for purposes of this Lock-Up Letter Agreement, “**immediate family**” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin) or any trust, limited partnership, limited liability company or other entity for the direct or indirect benefit of the undersigned or any immediate family member of the undersigned; *provided that*, in the case of clauses (b), (c) and (d) above, it shall be a condition to any such transfer that (i) the transferee/donee agrees to be bound by the terms of this Lock-Up Letter Agreement (including, without limitation, the restrictions set forth in the preceding sentence) to the same extent as if the transferee/donee were a party hereto; and (ii) each party (donor, donee, transferor or transferee) shall not be required by law (including without limitation the disclosure requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), and the Exchange Act) to make, and shall agree to not voluntarily make, any filing or public announcement of the transfer or disposition prior to the expiration of the Lock-Up Period; (e) the transfer of shares to the Company to satisfy withholding obligations for any equity award granted pursuant to the terms of the Company’s stock option/incentive plans, such as upon exercise, vesting, lapse of substantial risk of forfeiture, or other similar taxable event, in each case on a “cashless” or “net exercise” basis (which, for the avoidance of doubt shall not include “cashless” exercise programs involving a broker or other third party), *provided that* as a condition of any transfer pursuant to this clause (e), that if the undersigned is required to file a report under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of Shares or any securities convertible into or exercisable or exchangeable for Shares during the Lock-Up Period, the undersigned shall include a statement in such report, and if applicable an appropriate disposition transaction code, to the effect that such transfer is being made as a share delivery or forfeiture in connection with a net value exercise, or as a forfeiture or sale of shares solely to cover required tax withholding, as the case may be; (f) transfers, issuances, sales or dispositions of Shares or any security convertible into or exercisable or exchangeable for Shares pursuant to (i) a bona fide third party tender offer made to all holders of Shares, (ii) merger, (iii) consolidation or (iv) other similar transaction involving a change of control (as defined below) of the Company, including voting in favor of any such transaction or taking any other action in connection with such transaction, *provided that* in the event that such merger, tender offer or other transaction is not completed, the Shares and any security convertible into or exercisable or exchangeable for Shares shall remain subject to the restrictions set forth herein; (g) the exercise of warrants or the exercise of stock options granted pursuant to the Company’s stock option/incentive plans or otherwise outstanding on the date hereof; *provided that* the restrictions shall apply to Shares issued upon such exercise or conversion; (h) the establishment of any contract, instruction or plan that satisfies all of the requirements of Rule 10b5-1 (a “**Rule 10b5-1 Plan**”) under the Exchange Act; *provided, however*, that no sales of Shares or securities convertible into, or exchangeable or exercisable for, Shares, shall be made pursuant to a Rule 10b5-1 Plan prior to the expiration of the Lock-Up Period; *provided further*, that the Company is not required to report the establishment of such Rule 10b5-1 Plan in any public report or filing with the Commission under the Exchange Act during the lock-up period and does not otherwise voluntarily effect any such public filing or report regarding such Rule 10b5-1 Plan; (i) any demands or requests for, exercise any right with respect to, or take any action in preparation of, the registration by the Company under the Securities Act of the undersigned’s Shares, *provided that* no transfer of the undersigned’s Shares registered pursuant to the exercise of any such right and no registration statement shall be filed under the Securities Act with respect to any of the undersigned’s Shares during the Lock-Up Period; (j) transfers with the prior written consent of the Representative; (k) transfer by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, *provided that* each such transferee agrees to be bound in writing by the terms of this Lock-Up Letter Agreement to the same extent as if the transferee were a party hereto; and (l) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity, the undersigned may transfer Shares, or any security convertible into Shares, (i) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (as defined in Rule 405 promulgated under the Securities Act) of the undersigned (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partners or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned) or (ii) as part of a distribution without consideration by the undersigned to its stockholders, partners, members or other equity holders; *provided that* in the case of any transfer contemplated in (i) or (ii) above, it shall be a condition to the transfer that (w) each transferee executes an agreement stating that the transferee is receiving and holding such Shares, or any security convertible into Shares, subject to the provisions of this Lock-Up Letter Agreement, and (x) there shall be no further transfer of such Shares, or any security convertible into Shares, except in accordance with this Lock-Up Letter Agreement, (y) such transfer shall not involve a disposition for value. For purposes of clause (f) above, “**change of control**” shall mean the consummation of any bona fide third party tender offer, merger, purchase, consolidation or other similar transaction the result of which is that any “**person**” (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of a majority of total voting power of the voting stock of the Company.

---

Sch 3-3

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company’s transfer agent and registrar against the transfer of the undersigned’s securities subject to this Lock-Up Letter Agreement except in compliance with this Lock-Up Letter Agreement.

It is understood that, if the Company notifies the Representative that it does not intend to proceed with the Offering, if the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated with the Representative prior to payment for and delivery of the Shares to be sold in the Offering, the undersigned will be released from its obligations under this Lock-Up Letter Agreement.

The undersigned understands that the Company and the Representative will proceed with the Offering in reliance on this Lock-Up Letter Agreement.

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

This Lock-Up Letter Agreement shall automatically terminate upon the earliest to occur, if any, of (a) the termination of the Underwriting Agreement before the sale of any Shares to the Representative; or (b) February 28, 2020, in the event that the Underwriting Agreement has not been executed by that date.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Letter Agreement and that, upon request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the undersigned shall be binding upon the heirs, personal representative, successors and assigns of the undersigned.

Very truly yours,

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name of Signatory, in the case of entities – Please Print)

\_\_\_\_\_  
(Title of Signatory, in the case of entities – Please Print)

Address: \_\_\_\_\_

\_\_\_\_\_

**COMMON STOCK PURCHASE WARRANT  
CNS PHARMACEUTICALS, INC.**

Warrant Shares: \_\_\_\_\_

Issue Date: \_\_\_\_\_, 2020

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, \_\_\_\_\_ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to the close of business on \_\_\_\_\_, 2025 (the “Termination Date”) but not thereafter, to subscribe for and purchase from CNS Pharmaceuticals, Inc., a Nevada Corporation (the “Company”), up to \_\_\_\_\_ shares of common stock, par value \$0.001 per share (the “Common Stock”) (as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock Equivalents” means any securities of the Company, which would entitle the holder thereof to acquire at any time shares of Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the principal Trading Market is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).

“Transfer Agent” means Continental Stock Transfer & Trust, the current transfer agent of the Company, with a mailing address of 1 State Street 30th Floor, New York, New York 10004 and a facsimile number of (212) 616-7619, and any successor transfer agent of the Company.

Section 2. Exercise.

a ) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed pdf copy via e-mail attachment of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the unpaid portion of the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

b ) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be \$[\_\_\_\_], subject to adjustment hereunder (the “Exercise Price”).

c ) Cashless Exercise. If at any time after the Initial Exercise Date, there is no effective registration statement registering, or no current prospectus available for, the issuance of the Warrant Shares to the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered by 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Underwriting Agreement, dated as of July 23, 2019, between the Company and A.G.P./Alliance Global Partners as representative of the several underwriters, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder.

i i . Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

i v . Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to

such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v . No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

v i . Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided , however , that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

---

4

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be [9.99%/4.99%] of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of the shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

---

5

### Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [RESERVED]

c ) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d ) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

---

6

e ) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of shares of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding shares of Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the shares of Common Stock or any compulsory share exchange pursuant to which the shares of Common Stock are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of shares of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

f ) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

---

7

g ) Notice to Holder.

i . Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

i i . Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the shares of Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the shares of Common Stock, (C) the Company shall authorize the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any capital stock of any class or of any rights, (D) the approval of

any stockholders of the Company shall be required in connection with any reclassification of the shares of Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the shares of Common Stock are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 5 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or stock exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or stock exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice and provided, further that no notice shall be required if the information is disseminated in a press release or document filed with the Securities and Exchange Commission. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

#### Section 4. Transfer of Warrant.

a ) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b ) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the Issue Date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c ) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

#### Section 5. Miscellaneous.

a ) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b ) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c ) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

#### d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued shares of Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the shares of Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e ) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, stockholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. Notwithstanding the foregoing, the provisions of this paragraph will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal district courts of the United States of America are the sole and exclusive forum.

f ) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g ) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that the Holder's right to exercise this Warrant terminates on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h ) Notices. Any notices, consents, waivers or other document or communications required or permitted to be given or delivered under the terms of this Warrant, other than any Notice of Exercise which must be delivered via email to the address below, must be in writing and will be deemed to have been delivered: (i) upon receipt, if delivered personally; (ii) when sent, if sent by e-mail (provided that such sent e-mail is kept on file (whether electronically or otherwise) by the sending party and the sending party does not receive an automatically generated message from the recipient's e-mail server that such e-mail could not be delivered to such recipient) and (iii) if sent by overnight courier service, one (1) Trading Day after deposit with an overnight courier service with next day delivery specified, in each case, properly addressed to the party to receive the same. The addresses and e-mail addresses for such communications shall be:

If to the Company:

CNS Pharmaceuticals, Inc.  
2100 West Loop South, Suite 800  
Houston, TX 77027  
Attention: Christopher Downs  
Email: Warrants2020@cnspharma.com

with a copy (which shall not constitute notice) to:

Schiff Hardin LLP  
100 N. 18th Street  
Suite 300  
Philadelphia, PA 19103  
Attention: Cavas S. Pavri  
Email: cpavri@schiffhardin.com

If to a Holder, to its address, facsimile number or e-mail address set forth herein or on the books and records of the Company.

i ) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any shares of Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j ) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k ) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

\*\*\*\*\*

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

CNS PHARMACEUTICALS, INC.

By: \_\_\_\_\_  
Name:  
Title:

**EXHIBIT A**

NOTICE OF EXERCISE

TO: CNS PHARMACEUTICALS, INC. (deliver to: Warrants2020@cnspharma.com)

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted, the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following DWAC Account Number:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
[SIGNATURE OF HOLDER]

Name of Investing Entity:  
\_\_\_\_\_

Signature of Authorized Signatory of Investing Entity:

---

Name of Authorized Signatory:

---

Title of Authorized Signatory:

---

Date:

EXHIBIT B

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)  
FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: \_\_\_\_\_  
(Please Print)

Address: \_\_\_\_\_  
(Please Print)

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

December 22, 2020

CNS Pharmaceuticals, Inc.  
2100 West Loop South, Suite 900  
Houston, TX 77027

Ladies and Gentlemen:

We have acted as counsel to CNS Pharmaceuticals, Inc., a Nevada corporation (the "Company"), in connection with the Registration Statement on Form S-1 (as amended, the "Registration Statement"), filed by the Company on December 21, 2020 with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"). The Registration Statement relates to the offering by the Company of up to an aggregate of \$11,500,000 of (i) shares (the "Shares") of the Company's common stock, par value \$0.001 per share ("Common Stock"), (ii) pre-funded warrants (the "Pre-Funded Warrants") to purchase shares of Common Stock (the "Pre-Funded Warrant Shares") covered by the Registration Statement; and (iii) purchase warrants (the "Purchase Warrants") to purchase shares of Common Stock (the "Purchase Warrant Shares") covered by the Registration Statement. The Shares, the Pre-Funded Warrants, and the Purchase Warrants are collectively referred to herein as the "Securities." The terms "Shares," "Pre-Funded Warrants," "Pre-Funded Warrant Shares," "Purchase Warrants," "Purchase Warrant Shares" and "Securities" shall include any additional securities registered by the Company pursuant to Rule 462(b) under the Act in connection with the offering contemplated by the Registration Statement. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus, other than as expressly stated herein with respect to the issue of the Shares, the Pre-Funded Warrants, Pre-Funded Warrant Shares, the Purchase Warrants, and the Purchase Warrant Shares. The Securities are being sold pursuant to an Underwriting Agreement to be entered into between the Company and A.G.P./Alliance Global Partners in the form most recently filed as an exhibit to the Registration Statement (the "Underwriting Agreement").

In connection with our opinion, we have examined the Registration Statement, including the exhibits thereto, the form of Pre-Funded Warrant, the form of Purchase Warrant and such other documents, corporate records and instruments, and have examined such laws and regulations, as we have deemed necessary for the purposes of this opinion. In making our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity with the originals of all documents submitted to us as copies and the legal capacity of all natural persons. As to matters of fact material to our opinions in this letter, we have relied on certificates and statements from officers and other employees of the Company, public officials and other appropriate persons.

Based on the foregoing and subject to the qualifications set forth below, we are of the opinion that:

1. The Shares, when issued by the Company against payment therefor in the circumstances contemplated by the Underwriting Agreement, will have been duly authorized for issuance by all necessary corporate action by the Company, and will be validly issued, fully paid and non-assessable;

2. The Pre-Funded Warrants and Purchase Warrants, when issued by the Company against payment therefor in the circumstances contemplated by the Underwriting Agreement, will have been duly authorized by all necessary corporate action of the Company and will constitute a valid and binding agreement of the Company enforceable against the Company in accordance with its terms; and

1

3. The Pre-Funded Warrant Shares initially issuable upon exercise of the Pre-Funded Warrants and the Purchase Warrant Shares initially issuable upon exercise of the Purchase Warrants when issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Pre-Funded Warrants or Purchase Warrants, respectively, will have been duly authorized by all necessary corporate action of the Company, and will be validly issued, fully paid and non-assessable.

The opinions set forth above are subject to the following qualifications:

A. The opinion expressed herein with respect to the legality, validity, binding nature and enforceability of the Pre-Funded Warrants and Purchase Warrants is subject to (i) applicable laws relating to bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer or other similar laws affecting creditors' rights generally, whether now or hereafter in effect and (ii) general principles of equity, including, without limitation, concepts of materiality, laches, reasonableness, good faith and fair dealing and the principles regarding when injunctive or other equitable remedies will be available (regardless of whether considered in a proceeding at law or in equity).

B. The foregoing opinions are limited to the Chapter 78 of the Nevada Revised Statutes and the State of New York, and we express no opinion as to the laws of any other jurisdiction.

The opinions expressed in this opinion letter are as of the date of this opinion letter only and as to laws covered hereby only as they are in effect on that date, and we assume no obligation to update or supplement such opinion to reflect any facts or circumstances that may come to our attention after that date or any changes in law that may occur or become effective after that date. The opinions herein are limited to the matters expressly set forth in this opinion letter, and no opinion or representation is given or may be inferred beyond the opinions expressly set forth in this opinion letter.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement and to the use of this firm's name under the caption "Legal Matters" in the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Schiff Hardin LLP  
Schiff Hardin LLP



**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated March 12, 2020 with respect to the audited financial statements of CNS Pharmaceuticals, Inc. as of and for the year ended December 31, 2019.

We also consent to the references to us under the heading "Experts" in such Registration Statement.

*/s/ MaloneBailey, LLP*  
www.malonebailey.com  
Houston, Texas  
December 21, 2020