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

FORM 8-K

Current Report
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of report (Date of earliest event reported): December 3, 2019

22nd Century Group, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Nevada	**001-36338**	**98-0468420**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

8560 Main Street, Suite 4, Williamsville, New York	**14221**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's Telephone Number, Including Area Code): **(716) 270-1523**

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

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

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

Emerging growth company ☐

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

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

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.00001 par value	XXII	NYSE American

Item 1.01 Entry into a Material Definitive Agreement.

Purchase of Series B Preferred Stock of Panacea Life Sciences, Inc. ("PLS")

On December 3, 2019, 22nd Century Group, Inc. (the "Company") entered into and initially closed a Series B Preferred Stock Purchase Agreement (the "Purchase Agreement") with PLS. Pursuant to the Purchase Agreement, at the initial closing (the "Initial Closing"), (i) the Company purchased 3,733,334 shares (the "Initial Shares") of Series B Preferred Stock, $0.01 par value per share (the "Series B Preferred Stock"), of PLS at a purchase price of $1.875 per share (the "Series B Original Issue Price"); (ii) PLS issued to the Company a secured convertible note in the principal amount of $7,000,000 (the "Convertible Note"), which is convertible into 3,733,334 shares of Series B Preferred Stock; and (iii) PLS issued to the Company a warrant (a "Series B Warrant") to purchase shares of Series B Preferred Stock at an exercise price of $2.344 per share.

Additionally, pursuant to the Purchase Agreement, the Company will purchase an additional 5,333,334 shares of Series B Preferred Stock (the "Milestone Shares") at a second closing (the "Milestone Closing") at the Series B Original Issue Price of $1.875 per share if PLS achieves at least an aggregate of $20,000,000 in gross revenues (calculated in accordance with generally accepted accounting principles) for any twelve (12) consecutive month period following the Initial Closing.

At the Initial Closing, the purchase price to be paid by the Company to PLS consisted of (i) $12 million in cash and (ii) 1,297,017 shares of the Company's common stock. At the Milestone Closing, the purchase price to be paid by the Company to PLS shall consist of (a) $8,500,000 in cash, and (b) such number of shares of the Company's common stock equal to the quotient of $1,500,000 divided by the 30-day VWAP (as defined in the Purchase Agreement) ending on the day of the Milestone Closing; provided that the 30-day VWAP shall not be less than $1.00. Following the Initial Closing, the Company owns 15.2% of the issued and outstanding shares of capital stock of PLS on a fully diluted basis, and assuming the Milestone Closing occurred on December 3, 2019, the Company would own 30.4% of the issued and outstanding shares of capital stock of PLS on a fully diluted basis.

Terms of Series B Preferred Stock

The Series B Preferred Stock will accrue cumulative dividends at the rate of 10% per annum and will be payable only when, as, and if declared by the Board of Directors of PLS. Each holder of outstanding shares of Series B Preferred Stock is entitled to vote on all matters presented to the shareholders of PLS on an as converted to common stock basis and, voting as a separate class, are entitled to elect one director of PLS for so long as such holders continue to own beneficially at least 3,733,334 shares of Series B Preferred Stock. The holders of the Series B Preferred Stock also have approval rights with respect to certain actions by PLS and a liquidation preference over all other classes of stock of PLS. Each share of Series B Preferred Stock is initially convertible, at the option of the holder thereof, at any time into one share of PLS common stock at the Series B Original Issue Price and is mandatorily convertible into one share of PLS common stock at the Series B Original Issue Price upon either (i) the closing of an initial public offering of PLS, or (ii) the written consent of holders of more than 50% of the outstanding shares of Series B Preferred Stock. Commencing on the fifth anniversary of the date of the Initial Closing and ending on the date that the Series B Warrant is fully exercised, the Series B Preferred Stock will be redeemable at the option of holders of at least 51% of the Series B Preferred Stock (the "Series B Put Right") at a price equal to the Series B Original Issue Price, plus all accrued but unpaid dividends. PLS may satisfy the payment to such holders upon exercise of the Series B Put Right, at PLS' election, in (i) cash and/or (ii) shares of the Company's common stock priced at the price at which such shares were issued to PLS. The Company and PLS also entered into a customary investor rights, co-sale and voting agreement in connection with the purchase of the Series B Preferred Stock.

Terms of the Convertible Note

Interest on the outstanding principal amount of the Convertible Note accrues at a rate of 10% per annum and will be payable monthly commencing on January 1, 2020. The outstanding principal of the Convertible Note and any accrued and unpaid interest thereon is convertible into shares of Series B Preferred Stock at a conversion price per share equal to $1.875. All outstanding principal of, and accrued but unpaid interest on, the Convertible Note is payable on the earlier to occur of (i) the fifth anniversary of the date of the Initial Closing, or (ii) date the Series B Warrant is fully exercised. PLS's obligations under the Convertible Note are secured by a lien on all assets of the PLS in favor of the Company.

Terms of the Series B Warrant

The Series B Warrant provides that the Company is entitled to purchase at any time on or following the Exercise Trigger Date (as defined below) up to that number of shares of Series B Preferred Stock that would constitute (i) when issued and when added to the shares of Series B Preferred Stock previously issued to the Company pursuant to the Purchase Agreement, and (ii) after taking into account the redemption of PLS common stock described in the immediately succeeding paragraph, 51% of the outstanding shares of capital stock of PLS on a fully-diluted basis. The Exercise Trigger Date is the earlier of (a) the five-year anniversary of the date of issuance of the Series B Warrant, and (b) the first day of the fiscal year of PLS immediately following PLS achieving at least $200 million in gross revenues for two consecutive fiscal years. At the election of the Company, it will pay the exercise price of the Series B Warrant in any of the following forms: (1) cash, (2) shares of the Company's common stock, or (3) a combination of cash and shares of the Company's common stock. If the exercise price of the Series B Warrant is paid in shares of the Company's common stock, the value of each share of the Company's common stock shall be equal to the 30-day VWAP on the date of exercise; provided that in no event shall the value of each share of the Company's common stock be less than $1.00.

Promptly following any exercise of the Series B Warrant in which the Company pays the exercise price by delivering shares of its common stock, PLS will redeem shares of its common stock beneficially owned by Quintel-MC Incorporated, a company that is owned by the Chief Executive Officer of PLS ("Quintel"). The shares of PLS common stock will be redeemed by PLS by exchanging shares of the Company's common stock received by PLS as payment of all or a portion of the exercise price of the Series B Warrant. Each share of PLS common stock to be redeem shall be valued at the exercise price of the Series B Warrant and each share of the Company's common stock shall be valued at the 30-day VWAP on the date of exercise; provided that the 30-day VWAP shall not be less than $1.00 per share.

On the date that the Series B Warrant is fully exercised, Quintel shall have the right to nominate one member to the Board of Directors of the Company for one term.

Side Agreement

In connection with the Purchase Agreement, on December 3, 2019, the Company, PLS and certain key employees of PLS entered into an agreement (the "Side Agreement"). Pursuant to the Side Agreement, during the period beginning on the date that the Series B Warrant is fully exercised and ending on the second anniversary of the date the Series B Warrant is fully exercised, Quintel has the right to exchange any shares of preferred stock of PLS owned by Quintel, any shares of common stock of PLS owned by Quintel, and any outstanding indebtedness running from Quintel to PLS, in each case, for shares of the Company's common stock upon 90 days' prior written notice from Quintel to PLS and the Company (a "Quintel Exchange"). The per share dollar value of any share of PLS preferred stock or PLS common stock to be exchanged by Quintel in the Quintel Exchange shall be equal to the Series B Warrant exercise price per share of $2.344, and such aggregate dollar value of the shares of PLS preferred stock and PLS common stock subject to any Quintel Exchange shall be applied to a corresponding number of shares of the Company's common stock based on the 90-day VWAP on the date the Company delivers to Quintel the shares of the Company's common stock in the Quintel Exchange; provided that in no event will such price be less than $1.00 per share of the Company's common stock.

Additionally, during the period beginning on the date of the Series B Warrant is fully exercised and ending on the second anniversary of the date the Series B Warrant is fully exercised, upon the entry by the Company into one or more binding agreements to effect a Fundamental Transaction (as defined in the Series B Warrant), Quintel shall have the right but not the obligation to require the Company to purchase (the "Put Right") all of the issued and outstanding shares of capital stock of PLS owned by Quintel by providing written notice (the "Put Notice") to PLS and the Company. Following delivery of the Put Notice by Quintel, the Company will be obligated to purchase all of Quintel's shares of capital stock of the PLS for an aggregate purchase price (the "Put Purchase Price") equal to 1.5 times Quintel's currently invested capital ($17,000,000) in PLS. The Company will deliver payment to Quintel of the Put Purchase Price in any of the following forms (in the Company's sole discretion) (i) cash, (ii) shares of the Company's common stock, or (iii) a combination of cash and the Company's common stock. If the Company determines (in its sole discretion) to pay all or a portion of the Put Purchase Price by delivering to Quintel shares of the Company's common stock, the value of each share of Company Common Stock shall be equal to the 30-day VWAP on the date of the Put Notice; provided that in no event shall the value of each share of Company Common Stock be less than $1.00.

In no event will the total number of shares of the Company's common stock issued pursuant to the transactions contemplated by the Purchase Agreement and other related transactions exceed 19.99% of the Company's outstanding shares of common stock on the date hereof.

The foregoing summaries of the Purchase Agreement, Convertible Note, Series B Warrant and Side Agreement do not purport to be complete and are subject to, and qualified in its entirety by reference to, the full text of the Purchase Agreement, Convertible Note, Series B Warrant and Side Agreement, copies of which are filed Exhibit 10.1, Exhibit 10.2, Exhibit 10.3 and Exhibit 10.4 hereto and are incorporated herein by reference.

Item 3.02 Unregistered Sales of Equity Securities.

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 3.02. The shares of the Company's common stock were and will be issued in reliance upon an exemption from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(a)(2) thereof.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Dr. Joseph Alexander Dunn

22nd Century Group, Inc. (the "Company") deeply regrets to announce that Dr. Joseph Alexander Dunn has passed away. Dr. Dunn has served as a valued member of the Company's Board of Directors since March 4, 2011. The Company would like to provide its sincere condolences to the family of Dr. Dunn.

CFO Transition

On December 3, 2019, the Board of Directors of the Company promoted Andrea S. Jentsch, the Company's current Director of Accounting and Financial Reporting, to the position of Chief Financial Officer. Ms. Jentsch's promotion was in connection with John T. Brodfuehrer's planned retirement phase-down, with Mr. Brodfuehrer transitioning from Chief Financial Officer to Vice President of Strategy.

Ms. Jentsch, age 49, has previously served as the Company's Director of Accounting and Financial Reporting since May 2019. Prior to joining the Company, Ms. Jentsch was previously the Operations Manager at Forbes Capretto Homes during April and May of 2019 and the Director of Finance and Administration at First Healthcare Products, Inc. from January 2017 through March 2019. Prior to her time at First Healthcare, Ms. Jentsch served in multiple roles over a twenty year span with HSBC Technology & Services USA, HSBC Bank USA, N.A. and other HSBC companies that ended in May 2013. Ms. Jentsch earned a Bachelor of Science in Finance from the Rochester Institute of Technology in 1993.

The new compensation and employment agreement of Ms. Jentsch are in the process of being finalized and will be disclosed in a subsequent Form 8-K.

There are no family relationships between Ms. Jentsch and any director, executive officer or person nominated or chosen by the Company to become a director or executive officer. Additionally, there have been no transactions involving Ms. Jentsch that would require disclosure under Item 404(a) of Regulation S-K.

PLS Transaction

The information set forth on Item 1.01 of this Current Report on Form 8-K is hereby incorporated by reference into this Item 5.02.

Item 7.01. Regulation FD Disclosure.

On December 3, 2019, the Company issued a press release relating the Company's transaction with PLS. The Company is furnishing a copy of such press release as Exhibit 99.1 hereto, which is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

10.1	Series B Preferred Stock Purchase Agreement, dated as of December 3, 2019, between Panacea Life Sciences., Inc and 22nd Century Group, Inc..
10.2	Convertible Note of Panacea Life Sciences., Inc., dated December 3, 2019, issued to 22nd Century Group, Inc.
10.3	Warrant to purchase shares of Series B Preferred Stock of Panacea Life Sciences., Inc., dated December 3, 2019, issued to 22nd Century Group, Inc.
10.4	Side Agreement, dated as of December 3, 2019, Panacea Life Sciences, Inc., [EMPLOYEE], [EMPLOYEE], [EMPLOYEE], [EMPLOYEE], Quintel-MC Incorporated, and 22nd Century Group, Inc.
99.1	Press release, dated December 3, 2019, issued by 22nd Century Group, Inc.

SIGNATURE

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

22nd Century Group, Inc.
(Registrant)

Date: December 3, 2019

By: /s/ Clifford B. Fleet
Clifford B. Fleet
President and Chief Executive Officer

Exhibit 10.1

PANACEA LIFE SCIENCES, INC.

SERIES B PREFERRED SECURITIES PURCHASE AGREEMENT

DECEMBER 3, 2019

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SERIES B PREFERRED SECURITIES PURCHASE AGREEMENT

THIS SERIES B PREFERRED SECURITIES PURCHASE AGREEMENT (this "**Agreement**"), is made as of December 3, 2019 by and among Panacea Life Sciences, Inc., a Colorado corporation (the "**Company**"), and 22nd Century Group, Inc., a Nevada corporation (the "**Purchaser**").

The parties hereby agree as follows:

1. Purchase and Sale of Preferred Stock, Convertible Note and Warrant

1.1 Sale and Issuance of Preferred Stock Convertible Note and Warrant.

(a) The Company shall adopt and file with the Secretary of State of the State of Colorado on or before the Initial Closing (as defined below) the Second Amended and Restated Articles of Incorporation in the form of Exhibit A attached to this Agreement (the "**Restated Certificate**").

(b) Subject to the terms and conditions of this Agreement, the Purchaser agrees to purchase at the Initial Closing and the Company agrees to sell and issue to the Purchaser at the Initial Closing 3,733,334 shares (the "**Initial Shares**") of Series B Preferred Stock, $0.01 par value per share (the "**Series B Preferred Stock**"), at a purchase price of $1.875 per share (the "**Series B Original Issue Price**"). The shares of Series B Preferred Stock issued to the Purchaser pursuant to this Agreement (including the Initial Shares, the Milestone Shares (as defined below), the Warrant Shares (as defined below) and the Conversion Shares, (as defined below) shall be referred to in this Agreement as the "**Shares**."

(c) Subject to the terms and conditions of this Agreement, the Purchaser agrees to purchase at the Initial Closing and the Company agrees to sell and issue to the Purchaser, a secured convertible promissory note in the form of Exhibit B hereto (the "**Note**") in the principal amount of $7,000,000, which Note is convertible into 3,733,334 shares of Series B Preferred Stock, subject to adjustment as provided in the Note (the "**Conversion Shares**").

(d) The Company shall issue to the Purchaser a warrant, in substantially the form ofExhibit C, (a "**Series B Warrant**"), for the purchase of shares (the "**Warrant Shares**") of Series B Preferred Stock which shall be exercisable at a price per share equal to $2.344, subject to adjustment as provided in the Series B Warrant.

1.2 Closing; Delivery.

(a) The initial purchase and sale of the Initial Shares, the Series B Warrant and the Notes shall take place remotely via the exchange of documents and signatures on the date hereof, or at such other time and place as the Company and the Purchaser mutually agree upon, orally or in writing (which time and place are designated as the "**Initial Closing**").

(b) At the Initial Closing, the Company shall deliver to the Purchaser a certificate representing the Initial Shares, the Note and the Series B Warrant against payment of the purchase price therefor as follows: (i) $12 million by wire transfer to a bank account designated by the Company, and (ii) the issuance by the Purchaser of a number of shares of Purchaser's common stock, $0.00001 par value per share (the "**Purchaser Common Stock**") equal to the quotient of $2,000,000 divided by the 30-day VWAP ending on the date of the Initial Closing; provided that the 30-day VWAP shall not be less than $1.00.

1.3 Sale of Milestone Shares of Preferred Stock.

(a) After the Initial Closing, the Company shall sell, and the Purchaser shall purchase, on the same terms and conditions as those contained in this Agreement, 5,333,334 additional shares of Series B Preferred Stock (the "**Milestone Shares**") at the Series B Original Issue Price per share, upon the certification by the Board (including the director appointed by the Purchaser) that the Company has achieved at least an aggregate of $20,000,000 in gross revenues (calculated in accordance with GAAP (as defined below)) for any twelve (12) consecutive month period following the Initial Closing (the "**Milestone Event**"). The date of the purchase and sale of the Milestone Shares are referred to in this Agreement as the "**Milestone Closing**" which such closing shall occur upon, or a reasonable time after, the Milestone Event.

(b) At the Milestone Closing, the Company shall deliver to the Purchaser a certificate representing the Milestone Shares against payment of the purchase price therefor as follows: (i) $8,500,000 by wire transfer to a bank account designated by the Company, and (ii) the issuance by the Purchaser of a number of shares of Purchaser Common Stock equal to the quotient of $1,500,000 divided by the 30-day VWAP ending on the date of the Milestone Closing; provided that the 30-day VWAP shall not be less than $1.00.

1.4 Use of Proceeds. In accordance with the directions of the Board of Directors of the Company (the '**Board**"), as it shall be constituted in accordance with the Voting Agreement, the Company will use the proceeds from the sale of the Initial Shares, the Milestone Shares, the Note and the Conversion Shares for (i) the repayment of up to $5,000,000 in aggregate principal amount of indebtedness of the Company held by Quintel and (ii) product development, limited research studies as mutually agreed between the parties, sales and marketing investments, capital investments, working capital and other general corporate purposes, but excluding distributions to stockholders, repurchases of securities (except as in (ii) above) and acquisitions.

1.5 Defined Terms Used in this Agreement. In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

(a) "**30-day VWAP**" means, as of any date, the volume weighted average price per share of the Purchaser Common Stock on the Principal Trading Market (as reported by Bloomberg L.P. (or its successor) or, if not available, by another authoritative source mutually agreed by the Company and the Purchaser) from 9:30 a.m. (New York City time) on the Trading Day that is thirty (30) Trading Days preceding such date to 4:00 p.m. (New York City time) on the last Trading Day immediately preceding such date.

(b) "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer, director or trustee of such Person, or any venture capital fund or registered investment company now or hereafter existing that is controlled by one or more general partners, managing members or investment advisers of, or shares the same management company or investment adviser with, such Person.

(c) "**Closing**" means either the Initial Closing or the Milestone Closing, as applicable.

(d) "**Code**" means the Internal Revenue Code of 1986, as amended.

(e) "**Company Intellectual Property**" means all patents, patent applications, registered and unregistered trademarks, trademark applications, registered and unregistered service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, information and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in, to and under any of the foregoing, and any and all such cases that are owned or used by the Company in the conduct of the Company's business as now conducted and as presently proposed to be conducted.

(f) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(g) "**Investors' Rights Agreement**" means the agreement among the Company and the Purchaser and certain other stockholders of the Company dated as of the date of the Initial Closing, in the form of Exhibit F attached to this Agreement.

(h) "**Key Employee**" means (i) Leslie Buttorff, (ii) Jordan D. Buttorff, (iii) Nick S. Buttorff, (iv) Nick J. Cavarra and (v) James Baumgartner.

(i) "**Knowledge**" with respect to the Company, including the phrase "**to the Company's knowledge**" shall mean the actual and constructive knowledge of the Key Employees, and "**Knowledge**" with respect to the Purchaser, including the phrase "**to the Purchaser's knowledge**" shall mean the actual and constructive knowledge of the executive officers of the Purchaser.

(j) "**Letter Agreement**" means the agreement, among the Company, the Key Employees, Quintel and the Purchaser, in the form ofExhibit I attached to this Agreement.

(k) "**Material Adverse Effect**" with respect to the Company, means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Company, and with respect to the Purchaser, means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Purchaser.

(l) "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(m) "**Preferred Stock**" means the Company's Series A Preferred Stock and Series B Preferred Stock.

(n) "**Principal Trading Market**" means the trading market on which the Purchaser Common Stock is primarily listed on and quoted for trading, and which, as of the Issue Date is the NYSE American.

(o) "**Quintel**" means Quintel-MC, Incorporated, a Colorado corporation.

(p) "**Right of First Refusal and Co-Sale Agreement**" means the agreement among the Company, the Purchaser, and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit G attached to this Agreement.

(q) "**SEC"** means the United States Securities and Exchange Commission.

(r) "**SEC Documents**" means all forms, proxy statements, registration statements, reports, schedules, and other documents filed, or required to be filed, by the Purchaser with the SEC pursuant to the Securities Laws.

(s) "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(t) "**Securities Laws**" means the Securities Act and the Exchange Act and the rules and regulations promulgated thereunder.

(u) "**Security Agreement**" means the agreement among the Company and the Purchaser, dated as of the date of the Initial Closing and securing the obligations under the Notes in the form of Exhibit J attached to this Agreement.

(v) "**Series A Preferred Stock**" means the Company's Series A Preferred Stock, $0.01 par value per share.

(w) "**Series B Securities**" means the Initial Shares, Milestone Shares, Notes, Conversion Shares, Series B Warrants and Warrant Shares.

(x) "**Shares**" means the shares of Series B Preferred Stock issued at the Initial Closing, any Milestone Shares issued at a Milestone Closing under Subsection 1.2(b), the Conversion Shares and the Warrant Shares.

(y) "**Trading Day**" means a day on which the Principal Trading Market is open for trading.

(z) "**Transaction Agreements**" means this Agreement, the Note, the Series B Warrant, the Security Agreement, the Investors' Rights Agreement, the Right of First Refusal and Co-Sale Agreement, Voting Agreement, the Letter Agreement and any other agreements, instruments or documents entered into in connection with this Agreement.

(aa) "**Voting Agreement**" means the agreement among the Company, the Purchaser and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit H attached to this Agreement.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to the Purchaser that, except as set forth on the Disclosure Schedule attached as Exhibit D to this Agreement, which exceptions shall be deemed to be part of the representations and warranties made hereunder, the following representations are true and complete as of the date of the Initial Closing, except as otherwise indicated. The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 2, and the disclosures in any section or subsection of the Disclosure Schedule shall qualify other sections and subsections in this Section 2 only to the extent it is readily apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.[3]

[3] NTD: All reps and warranties subject to further diligence review.

For purposes of these representations and warranties (other than those in Subsections 2.2, 2.3, 2.4, 2.5, and 2.6), the term the "**Company**" shall include any subsidiaries of the Company, unless otherwise noted herein.

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Colorado and has all requisite corporate power and authority to carry on its business as now conducted and as presently proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a Material Adverse Effect.

2.2 Capitalization.

(a) The authorized capital of the Company consists, as of the adoption and filing of the Restated Certificate with the Secretary of State of the State of Colorado, of:

(i) (i) 33,930,000 shares of common stock, $0.01 par value per share (the "**Common Stock**"), 18,404,331 shares of which are issued and outstanding immediately prior to the Initial Closing. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws.

(ii) 14,674,000 shares of Preferred Stock, of which (A) 13,174,000 shares have been designated Series B Preferred Stock, none of which are issued and outstanding immediately prior to the Initial Closing and (B) 1,500,000 shares have been designated Series A Preferred Stock, 1,500,000 of which are issued and outstanding immediately prior to the Initial Closing. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the Colorado Business Corporation Act.

(b) The Company has reserved 3,235,000 shares of Common Stock for issuance to officers, directors, employees and consultants of the Company pursuant to its 2017 Equity Incentive Plan duly adopted by the Board of Directors and approved by the Company stockholders (the "**Stock Plan**"). Of such reserved shares of Common Stock, 1,345,000 shares have been issued pursuant to restricted stock purchase agreements, options to purchase 844,002 shares have been granted and are currently outstanding, and 1,045,998 shares of Common Stock remain available for issuance to officers, directors, employees and consultants pursuant to the Stock Plan. The Company has furnished to the Purchaser complete and accurate copies of the Stock Plan and forms of agreements used thereunder.

(c) Except for (A) the conversion or exercise privileges of the Series B Securities to be issued under this Agreement, (B) the rights provided in Section 4 of the Investors' Rights Agreement, and (C) the securities and rights described in Subsections 2.2(a)(ii) and 2.2(b) of this Agreement and Subsection 2.2(b) of the Disclosure Schedule, there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from the Company any shares of Common Stock or Preferred Stock, or any securities convertible into or exchangeable for shares of Common Stock or Preferred Stock. All outstanding shares of the Company's Common Stock and all shares of the Company's Common Stock underlying outstanding options are subject to (i) a right of first refusal in favor of the Company upon any proposed transfer (other than transfers for estate planning purposes); and (ii) a lock-up or market standoff agreement of not less than one hundred eighty (180) days following the Company's initial public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act. No person or entity (x) has been granted full ratchet, formula adjustment, or any other type of, protection against dilution of their ownership interest in the Company, (y) has been granted rights to receive the same or better rights in connection with any ownership interest in the Company as any other person or entity may receive either pursuant to this Agreement or at any time hereafter or (z) have been granted rights of redemption by the Company. No full ratchet, formula adjustment, or any other type of, protection against dilution of any ownership interest in the Company has been triggered, nor will be triggered by the transactions provided for in this Agreement.

(d) None of the Company's restricted stock award agreements under the Stock Plan contains a provision for acceleration of vesting (or lapse of a repurchase right) or other changes in the vesting provisions or other terms of such agreement or understanding upon the occurrence of any event or combination of events, including without limitation in the case where the Company's Stock Plan is not assumed in an acquisition. The Company's stock option agreements under the Stock Plan contain "double-trigger" vesting acceleration upon the occurrence of both (i) a change of control of the Company and (ii) a termination of employment without cause within 12 months of a change of control. The Company has never adjusted or amended the exercise price of any stock options previously awarded, whether through amendment, cancellation, replacement grant, repricing, or any other means. Except as set forth in the Restated Certificate, the Company has no obligation (contingent or otherwise) to purchase or redeem any of its capital stock.

(e) 409A. The Company believes in good faith that any "nonqualified deferred compensation plan" (as such term is defined under Section 409A(d)(1) of the Code and the guidance thereunder) under which the Company makes, is obligated to make or promises to make, payments (each, a "**409A Plan**") complies in all material respects, in both form and operation, with the requirements of Section 409A of the Code and the guidance thereunder. To the knowledge of the Company, no payment to be made under any 409A Plan is, or will be, subject to the penalties of Section 409A(a)(1) of the Code.

(f) The Company has obtained valid waivers of any rights by other parties to purchase any of the Series B Securities covered by this Agreement.

2.3 Subsidiaries. The Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement.

2.4 Authorization. All corporate action required to be taken by the Board and stockholders in order to authorize the Company to enter into the Transaction Agreements, and to issue the Series B Securities at the Initial Closing and the Milestone Closing and the Preferred Stock or Common Stock issuable upon conversion or exercise of the Series B Securities, has been taken or will be taken prior to the Initial Closing. All action on the part of the officers of the Company necessary for the execution and delivery of the Transaction Agreements, the performance of all obligations of the Company under the Transaction Agreements to be performed as of the Initial Closing and/or the Milestone Closing, and the issuance and delivery of the Series B Securities has been taken or will be taken prior to the Initial Closing. The Transaction Agreements, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Investors' Rights Agreement may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Series B Securities. (i) The Initial Shares and the Milestone Shares, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, (ii) the Warrant Shares, when issued upon exercise of the Series B Warrant in accordance with its terms, (iii) the Conversion Shares, when issued upon conversion of the Note in accordance with its terms, and (iv) the Common Stock, when issued upon conversion of the Initial Shares, the Milestone Shares, the Warrant Shares and the Conversion Shares in accordance with the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by the Purchaser. Assuming the accuracy of the representations of the Purchaser in Section 3 of this Agreement and subject to the filings described in the Voting Agreement, the Series B Securities will be issued in compliance with all applicable federal and state securities laws. The Preferred Stock or Common Stock issuable upon conversion or exercise of the Note, Warrant, Initial Shares, Conversion Shares and Milestone Shares has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by the Purchaser. Based in part upon the representations of the Purchaser in Section 3 of this Agreement and in the Voting Agreement, the Common Stock issuable upon the conversion or exercise of the Series B Securities will be issued in compliance with all applicable federal and state securities laws. No "bad actor" disqualifying event described in Rule 506(d)(1)(i)-(viii) of the Securities Act is applicable to the Company or, to the Company's knowledge, any person affiliated with the Company.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations made by the Purchaser in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for (i) the filing of the Restated Certificate, which will have been filed as of the Initial Closing, and (ii) filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Litigation and Compliance with Laws. To the Company's knowledge and to the Knowledge of the Key Employees, neither the Company nor any of its Affiliates is or in the past three (3) years has been in material violation of, or has been charged with any violation of, any applicable law (excluding traffic violations and other minor offenses). There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or, to the Company's knowledge, currently threatened (i) against the Company or any officer, director or Key Employee of the Company; (ii) that questions the validity of the Transaction Agreements or the right of the Company to enter into them, or to consummate the transactions contemplated by the Transaction Agreements; or (iii) that would reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect, nor does the Company have any knowledge of any basis for the foregoing. Neither the Company nor, to the Company's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors or Key Employees, such as would affect the Company). There is no action, suit, proceeding or investigation by the Company pending or which the Company intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened (or any basis therefor known to the Company) involving the prior employment of any of the Company's employees, their services provided in connection with the Company's business, any information or techniques allegedly proprietary to any of their former employers or their obligations under any agreements with prior employers.

2.9 Intellectual Property. The Company owns or possesses or, to the Company's knowledge, believes it can acquire on commercially reasonable terms sufficient legal rights to all Company Intellectual Property without any conflict with, or infringement of, the rights of others, including prior employees or consultants with which any of them may be affiliated now or may have been affiliated in the past. To the Company's knowledge with respect to third-party patents, trademarks, service marks and tradenames only, no product or service marketed or sold (or proposed to be marketed or sold) by the Company violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard, non-negotiated, non-exclusive end-user object code license agreements that are not incorporated into, or used in, the Company's products or services, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Company Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, domain names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. The Company has not received any communications alleging that the Company has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, domain names, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person, and the Company is not aware of any potential basis for such an allegation or of any reason to believe that such an allegation may be forthcoming. The Company has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with the Company's business. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to, or outside the scope of, their employment by or consulting relationship with the Company, including prior employees or consultants with which any of them may be affiliated now or may have been affiliated in the past. Each current employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted and all intellectual property rights that he, she or it solely or jointly conceived, reduced to practice, developed or made during the period of his, her or its employment or consulting relationship with the Company that (a) relate, at the time of conception, reduction to practice, development, or making of such intellectual property right, to the Company's business as then conducted or as then proposed to be conducted, (b) were developed on any amount of the Company's time or with the use of any of the Company's equipment, supplies, facilities or information or (c) resulted from the performance of services for the Company. Subsection 9 of the Disclosure Schedule lists all patents, patent applications, registered trademarks, trademark applications, service marks, service mark applications, tradenames, registered copyrights, and licenses to and under any of the foregoing, in each case owned by the Company. For purposes of this Subsection 2.9, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws. To the extent the Company uses any "open source" or "copyleft" software in its products or services or is a party to "open" or "public source" or similar licenses with respect to all or any part of its products or services (each, an "Open Source License"), the Company is in compliance with the terms of any such licenses, any such software and Open Source Licenses are listed on the Disclosure Schedule, and the Company is not required (and, even if it distributed its software, would not be required) under any such Open Source License to (a) make or permit any disclosure or to make available any source code for its (or any of its licensors') proprietary software or (b) distribute or make available any of the Company's proprietary software or intellectual property (or to permit any such distribution or availability). No government funding, facilities of a university, college, other educational institution or research center, or funding from third parties was used in the development of any Company Intellectual Property. No Person who was involved in, or who contributed to, the creation or development of any Company Intellectual Property, has performed services for the government, university, college, or other educational institution or research center in a manner that would affect Company's rights in the Company Intellectual Property.

2.10 Compliance with Other Instruments. The Company is not in violation or default of any provisions of its Restated Certificate or Bylaws. The Company is not in material violation or default (i) of any instrument, judgment, order, writ or decree, (ii) under any note, indenture or mortgage, or (iii) under any lease, agreement, privacy policy, contract or purchase order to which it is a party or by which it is bound, or (iv) to its knowledge, of any provision of federal or state statute, rule or regulation applicable to the Company (including, without limitation, those related to food services, privacy, personally identifiable information or export control). The execution, delivery and performance of the Transaction Agreements and the consummation of the transactions contemplated by the Transaction Agreements will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (X) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement; or (Y) an event which results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to the Company.

2.11 Agreements; Actions.

(a) Except for the Transaction Agreements, there are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound that involve (i) obligations (contingent or otherwise) of, or payments to, the Company in excess of $25,000, (ii) the license or transfer of or other agreements regarding any patent, copyright, trademark, trade secret or other proprietary right to or from the Company, (iii) the grant of rights to manufacture, produce, assemble, license, market, or sell its products or services to any other Person that limits the Company's exclusive right to develop, manufacture, assemble, distribute, market or sell its products, or (iv) indemnification by the Company with respect to infringements of proprietary rights. Collectively, all of the foregoing are "Material Contracts." All Material Contracts are valid, binding and enforceable against the Company and, to the Company's knowledge, against the other parties thereto in accordance with their respective terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies. The Company is not in default under any Material Contract.

(b) The Company has not (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or incurred any other liabilities individually in excess of $100,000 or in excess of $200,000 in the aggregate, (iii) made any loans or advances to any Person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights, other than the sale of its inventory in the ordinary course of business. For the purposes of (a) and (b) of this Subsection 2.11, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same Person (including Persons the Company has reason to believe are affiliated with each other) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(c) The Company is not a guarantor or indemnitor of any indebtedness of any other Person.

2.12 Certain Transactions.

(a) Other than (i) standard employee benefits generally made available to all employees, (ii) standard director and officer indemnification agreements approved by the Board of Directors, and (iii) the purchase of shares of the Company's capital stock and the issuance of options to purchase shares of the Company's Common Stock, in each instance, approved in the written minutes of the Board of Directors (previously provided to the Purchaser or their counsel), there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, consultants or Key Employees, or any Affiliate thereof.

(b) The Company is not indebted, directly or indirectly, to any of its directors, officers or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of the Company's directors, officers or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to the Company or, to the Company's knowledge, have any (i) material commercial, industrial, banking, consulting, legal, accounting, charitable or familial relationship with any of the Company's customers, suppliers, service providers, joint venture partners, licensees and competitors, (ii) direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation which competes with the Company except that directors, officers, employees or stockholders of the Company may own stock in (but not exceeding two percent (2%) of the outstanding capital stock of) publicly traded companies that may compete with the Company; or (iii) financial interest in any contract with the Company, other than pursuant to employment agreements and awards under the Stock Plan.

2.13 Rights of Registration and Voting Rights . Except as provided in the Investors' Rights Agreement, the Company is not under any obligation to register under the Securities Act any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities. To the Company's knowledge, except as contemplated in the Voting Agreement, no stockholder of the Company has entered into any agreements with respect to the voting of capital shares of the Company.

2.14 Property. The property and assets that the Company owns are free and clear of all mortgages, deeds of trust, liens, loans and encumbrances, except for statutory liens for the payment of current taxes that are not yet delinquent and encumbrances and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets. With respect to the property and assets it leases, the Company is in compliance with such leases and holds a valid leasehold interest free of any liens, claims or encumbrances other than those of the lessors of such property or assets. The Company does not own any real property.

2.15 Financial Statements. . The Company has delivered to the Purchaser its unaudited financial statements (including balance sheet and income statement) as of December 31, 2018 and for the fiscal year ended December 31, 2018 and its unaudited financial statements (including balance sheet and income statement) as of October 31, 2019 and for the interim period ended October 31, 2019 (collectively, the "**Financial Statements**"). The Financial Statements have been prepared in accordance with generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods indicated, except that the unaudited Financial Statements may not contain all footnotes required by GAAP. The Financial Statements fairly present in all material respects the financial condition and operating results of the Company as of the dates, and for the periods, indicated therein, subject in the case of the unaudited Financial Statements to normal year-end audit adjustments. Except as set forth in the Financial Statements, the Company has no material liabilities or obligations, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to September 30, 2019; (ii) obligations under contracts and commitments incurred in the ordinary course of business; and (iii) liabilities and obligations of a type or nature not required under GAAP to be reflected in the Financial Statements, which, in all such cases, individually and in the aggregate would not have a Material Adverse Effect. The Company maintains and will continue to maintain a standard system of accounting established and administered in accordance with GAAP.

2.16 Changes. Since October 31, 2019 there has not been:

(a) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except changes in the ordinary course of business that have not caused, in the aggregate, a Material Adverse Effect;

(b) any damage, destruction or loss, whether or not covered by insurance, that would have a Material Adverse Effect;

(c) any waiver or compromise by the Company of a valuable right or of a material debt owed to it;

(d) any satisfaction or discharge of any lien, claim, or encumbrance or payment of any obligation by the Company, except in the ordinary course of business and the satisfaction or discharge of which would not have a Material Adverse Effect;

(e) any material change to a material contract or agreement by which the Company or any of its assets is bound or subject;

(f) any material change in any compensation arrangement or agreement with any employee, officer, director or stockholder;

(g) any resignation or termination of employment of any officer or Key Employee of the Company;

(h) any mortgage, pledge, transfer of a security interest in, or lien, created by the Company, with respect to any of its material properties or assets, except liens for taxes not yet due or payable and liens that arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets;

(i) any loans or guarantees made by the Company to or for the benefit of its employees, officers or directors, or any members of their immediate families, other than travel advances and other advances made in the ordinary course of its business;

(j) any declaration, setting aside or payment or other distribution in respect of any of the Company's capital stock, or any direct or indirect redemption, purchase, or other acquisition of any of such stock by the Company;

(k) any sale, assignment or transfer of any Company Intellectual Property that could reasonably be expected to result in a Material Adverse Effect;

(l) receipt of notice that there has been a loss of, or material order cancellation by, any major customer of the Company;

(m) to the Company's knowledge, any other event or condition of any character, other than events affecting the economy or the Company's industry generally, that could reasonably be expected to result in a Material Adverse Effect; or

(n) any arrangement or commitment by the Company to do any of the things described in this Subsection 2.16.

2.17 Employee Matters.

(a) As of the date hereof, the Company employs 20 full-time employees and 4 part-time employees and engages 13 consultants or independent contractors. Section 2.17(a) of the Disclosure Schedule sets forth a detailed description of all compensation, including salary, bonus, severance obligations and deferred compensation paid or payable for each officer, employee, consultant and independent contractor of the Company who received compensation in excess of $75,000 for the fiscal year ended December 31, 2018 or is anticipated to receive compensation in excess of $75,000 for the fiscal year ending December 31, 2019.

(b) To the Company's knowledge, none of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with such employee's ability to promote the interest of the Company or that would conflict with the Company's business as presently conducted or as presently proposed to be conducted. Neither the execution or delivery of the Transaction Agreements, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as now conducted and as presently proposed to be conducted, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated.

(c) The Company is not delinquent in payments to any of its employees, consultants, or independent contractors for any wages, salaries, commissions, bonuses, or other direct compensation for any service performed for it to the date hereof or amounts required to be reimbursed to such employees, consultants or independent contractors. The Company has complied in all material respects with all applicable state and federal equal employment opportunity laws and with other laws related to employment, including those related to wages, hours, worker classification and collective bargaining. The Company has withheld and paid to the appropriate governmental entity or is holding for payment not yet due to such governmental entity all amounts required to be withheld from employees of the Company and is not liable for any arrears of wages, taxes, penalties or other sums for failure to comply with any of the foregoing.

(d) To the Company's knowledge, no Key Employee intends to terminate employment with the Company or is otherwise likely to become unavailable to continue as a Key Employee. The Company does not have a present intention to terminate the employment of any of the foregoing. The employment of each employee of the Company is terminable at the will of the Company. Except as set forth in Subsection 2.16(d) of the Disclosure Schedule or as required by law, upon termination of the employment of any such employees, no severance or other payments will become due. Except as set forth in Subsection 2.16(d) of the Disclosure Schedule, the Company has no policy, practice, plan or program of paying severance pay or any form of severance compensation in connection with the termination of employment services.

(e) The Company has not made any representations regarding equity incentives to any officer, employee, director or consultant that are inconsistent with the share amounts and terms set forth in the minutes of meetings of the Board.

(f) Subsection 2.17(f) of the Disclosure Schedule sets forth each employee benefit plan maintained, established or sponsored by the Company, or which the Company participates in or contributes to, which is subject to the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"). The Company has made all required contributions and has no liability to any such employee benefit plan, other than liability for health plan continuation coverage described in Part 6 of Title I(B) of ERISA, and has complied in all material respects with all applicable laws for any such employee benefit plan.

(g) To the Company's Knowledge, none of the Key Employees or directors of the Company has been (a) convicted in a criminal proceeding or named as a subject of a pending criminal proceeding (excluding traffic violations and other minor offenses); (b) subject to any order, judgment or decree (not subsequently reversed, suspended, or vacated) of any court of competent jurisdiction permanently or temporarily enjoining him or her from engaging, or otherwise imposing limits or conditions on his or her engagement in any securities, investment advisory, banking, insurance, or other type of business or acting as an officer or director of a public company; or (c) found by a court of competent jurisdiction in a civil action or by the Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated any federal or state securities, commodities, or unfair trade practices Law, which such judgment or finding has not been subsequently reversed, suspended, or vacated.

2.18 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.19 Insurance. The Company has in full force and effect insurance policies concerning such casualties as would be reasonable and customary for companies like the Company. with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

2.20 Employee Agreements. Each current and former employee, consultant and officer of the Company has executed an agreement with the Company regarding confidentiality and proprietary information in the form or forms delivered to the counsel for the Purchaser (the "**Confidential Information Agreements**"). No current employee, consultant or officer has excluded works or inventions or other subject matter from his or her assignment of inventions pursuant to such person's Confidential Information Agreement. Each current employee has executed a non-competition and non-solicitation agreement substantially in the form or forms delivered to the counsel for the Purchaser. The Company is not aware that any of its employees, consultants or officers is in violation of any agreement covered by this Subsection 2.20, and the Company will use its commercially reasonable efforts to prevent any such violation.

2.21 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. The Company is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

2.22 Corporate Documents. The Restated Certificate and Bylaws of the Company are in the form provided to the Purchaser. The copy of the minute books of the Company provided to the Purchaser contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders with respect to all transactions referred to in such minutes.

2.23 83(b) Elections. To the Company's knowledge, all elections and notices under Section 83(b) of the Code have been or will be timely filed by all individuals who have acquired unvested shares of the Company's Common Stock.

2.24 Environmental and Safety Laws. To its knowledge (a) the Company is and has been in compliance with all Environmental Laws; (b) there has been no release or to the Company's knowledge threatened release of any pollutant, contaminant or toxic or hazardous material, substance or waste or petroleum or any fraction thereof (each a "**Hazardous Substance**"), on, upon, into or from any site currently or heretofore owned, leased or otherwise used by the Company; (c) there have been no Hazardous Substances generated by the Company that have been disposed of or come to rest at any site that has been included in any published U.S. federal, state or local "superfund" site list or any other similar list of hazardous or toxic waste sites published by any governmental authority in the United States; and (d) there are no underground storage tanks located on, no polychlorinated biphenyls ("**PCBs**") or PCB-containing equipment used or stored on, and no hazardous waste as defined by the Resource Conservation and Recovery Act, as amended, stored on, any site owned or operated by the Company, except for the storage of hazardous waste in compliance with Environmental Laws. The Company has made available to the Purchaser true and complete copies of all material environmental records, reports, notifications, certificates of need, permits, pending permit applications, correspondence, engineering studies and environmental studies or assessments.

For purposes of this Subsection 2.24, "**Environmental Laws**" means any law, regulation, or other applicable requirement relating to (a) releases or threatened release of Hazardous Substance; (b) pollution or protection of employee health or safety, public health or the environment; or (c) the manufacture, handling, transport, use, treatment, storage, or disposal of Hazardous Substances.

2.25 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any personally identifiable information from any individuals, including, without limitation, any customers, prospective customers, employees and/or other third parties (collectively "**Personal Information**"), the Company is and has been in compliance with the Company's privacy policies and the requirements of any contract or codes of conduct to which the Company is a party and, to the Company's knowledge, all applicable laws in all relevant jurisdictions. The Company has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect its confidential information and all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. To the extent the Company maintains or transmits protected health information, as defined under 45 C.F.R. § 160.103, the Company is in compliance with the applicable requirements of the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, including all rules and regulations promulgated thereunder. The Company is and has been in compliance in all material respects with all laws relating to data loss, theft and breach of security notification obligations.

2.26 Preclinical Development and Clinical Trials. The studies, tests, preclinical development and clinical trials, if any, conducted by or on behalf of the Company are being conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company and all applicable laws and regulations, including the Federal Food, Drug, and Cosmetic Act and 21 C.F.R. parts 50, 54, 56, 58, 312, and 812. The descriptions of, protocols for, and data and other results of, the studies, tests, development and trials conducted by or on behalf of the Company that have been furnished or made available to the Purchaser are accurate and complete. The Company is not aware of any studies, tests, development or trials the results of which reasonably call into question the results of the studies, tests, development and trials conducted by or on behalf of the Company, and the Company has not received any notices or correspondence from the FDA or any other Governmental Entity or any Institutional Review Board or comparable authority requiring the termination, suspension or material modification of any studies, tests, preclinical development or clinical trials conducted by or on behalf of the Company.

2.27 FDA Approvals. The Company possesses all permits, licenses, registrations, certificates, authorizations, orders and approvals from the appropriate federal, state or foreign regulatory authorities necessary to conduct its business as now conducted, including all such permits, licenses, registrations, certificates, authorizations, orders and approvals required by the U.S. Food and Drug Administration ("FDA") or any other federal, state or foreign agencies or bodies engaged in the regulation of drugs, pharmaceuticals, medical devices or biohazardous materials. The Company has not received any notice of proceedings relating to the suspension, modification, revocation or cancellation of any such permit, license, registration, certificate, authorization, order or approval. Neither the Company nor, to the Company's knowledge, any officer, employee or agent of the Company has been convicted of any crime or engaged in any conduct that has previously caused or would reasonably be expected to result in (A) disqualification or debarment by the FDA under 21 U.S.C. Sections 335(a) or (b), or any similar law, rule or regulation of any other Governmental Entities, (B) debarment, suspension, or exclusion under any Federal Healthcare Programs or by the General Services Administration, or (C) exclusion under 42 U.S.C. Section 1320a-7 or any similar law, rule or regulation of any Governmental Entities. Neither the Company nor any of its officers, employees, or to the Knowledge of the Company, any of its contractors or agents is the subject of any pending or threatened investigation by FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" policy as stated at 56 Fed. Reg. 46191 (September 10, 1991) (the "FDA Application Integrity Policy") and any amendments thereto, or by any other similar Governmental Entity pursuant to any similar policy. Neither the Company nor any of its officers, employees, contractors, and agents has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for FDA to invoke the FDA Application Integrity Policy or for any similar governmental entity to invoke a similar policy. Neither the Company nor any of its officers, employees, or to the Company's Knowledge, any of its contractors or agents has made any materially false statements on, or material omissions from, any notifications, applications, approvals, reports and other submissions to FDA or any similar governmental entity.

2.28 Purchase Entirely for Own Account. This Agreement is made with the Company in reliance upon the Company's representation to the Purchaser, which by the Company's execution of this Agreement, the Company hereby confirms, that the Purchaser Common Stock to be acquired by the Company will be acquired for investment for the Company's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Company has no present intention of selling, granting any participation in, or otherwise distributing the same (other than to an Affiliate of the Company). By executing this Agreement, the Company further represents that the Company does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Purchaser Common Stock, other than to an Affiliate of the Company.

2.29 Disclosure of Information. The Company has had an opportunity to discuss the Purchaser's business, management, financial affairs and the terms and conditions of the offering of the Purchaser Common Stock with the Purchaser's management. The foregoing, however, does not limit or modify the representations and warranties of the Purchaser in Section 3 of this Agreement or the right of the Company to rely thereon.

2.30 Restricted Securities. The Company understands that the Purchaser Common Stock has not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Company's representations as expressed herein. The Company understands that the Purchaser Common Stock is "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Company must hold the Purchaser Common Stock indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Company acknowledges that the Purchaser has no obligation to register or qualify the Purchaser Common Stock for resale; *provided* that, to the extent the Purchaser Common Stock is eligible for resale pursuant to Rule 144 under the Securities Act ("**Rule 144**"), the Purchaser shall use commercially reasonable efforts to facilitate the Company's or any Company Affiliate's resale of the Purchase Common Stock pursuant to Rule 144, including by instructing the Purchaser's transfer agent to take any steps necessary to facilitate such resale. The Company further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Purchaser Common Stock, and on requirements relating to the Purchaser which are outside of the Company's control, and which the Purchaser is under no obligation and may not be able to satisfy.

2.31 Legends. The Company understands that the Purchaser Common Stock may be notated with one or all of the following legends:

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(a) Any legend set forth in, or required by, the other Transaction Agreements.

(b) Any legend required by the securities laws of any state to the extent such laws are applicable to the Purchaser Common Stock represented by the certificate, instrument, or book entry so legended.

2.32 Accredited Investor. The Company is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

2.33 No General Solicitation. Neither the Company, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including, through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Purchaser Common Stock.

2.34 Residence. The office of the Company in which its principal place of business is identified in the address or addresses of the Company set forth on signature page hereto.

2.35 Obligations of Management. Except as set forth on Section 2.35 of the Disclosure Schedule, each officer of the Company and Key Employee is currently devoting all of his or her business time to the conduct of the business of the Company, and is not devoting any business time to the conduct of any other business. The Company does not have any Knowledge that any officer of the Company or Key Employee is planning to work less than full time at the Company in the future. No officer or Key Employee is currently working for or, to the Company's Knowledge, plans to work for a competitive enterprise, whether or not such officer or Key Employee is or will be compensated by such enterprise.

2.36 Foreign Corrupt Practices Act. Neither the Company nor any of the Company's directors, officers, employees or agents have, directly or indirectly, made, offered, promised or authorized any payment or gift of any money or anything of value to or for the benefit of any "foreign official" (as such term is defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "**FCPA**")), foreign political party or official thereof or candidate for foreign political office for the purpose of (i) influencing any official act or decision of such official, party or candidate, (ii) inducing such official, party or candidate to use his, her or its influence to affect any act or decision of a foreign governmental authority, or (iii) securing any improper advantage, in the case of (i), (ii) and (iii) above in order to assist the Company or any of its affiliates in obtaining or retaining business for or with, or directing business to, any person. Neither the Company nor any of its directors, officers, employees or agents have made or authorized any bribe, rebate, payoff, influence payment, kickback or other unlawful payment of funds or received or retained any funds in violation of any law, rule or regulation. The Company further represents that it has maintained, and has caused each of its subsidiaries and affiliates to maintain, systems of internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems) to ensure compliance with the FCPA or any other applicable anti-bribery or anti-corruption law. Neither the Company, or, to the Company's Knowledge, any of its officers, directors or employees are the subject of any allegation, voluntary disclosure, investigation, prosecution or other enforcement action related to the FCPA or any other anti-corruption law.

2.37 Disclosure. The Company has made available to the Purchaser all the information reasonably available to the Company that the Purchaser has requested for deciding whether to acquire the Series B Securities. No representation or warranty of the Company contained in this Agreement, as qualified by the Company Disclosure Schedule, and no certificate furnished or to be furnished to Purchaser at the Closing contains or will contain, as applicable, any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading in light of the circumstances under which they were made. It is understood that this representation is qualified by the fact that the Company has not delivered to the Purchaser, and has not been requested to deliver, a private placement or similar memorandum or any written disclosure of the types of information customarily furnished to purchasers of securities.

3. Representations and Warranties of the Purchaser. The Purchaser hereby represents and warrants to the Company that, except (i) as set forth on the Disclosure Schedule attached as Exhibit E to this Agreement, and (ii) as set forth in the SEC Documents, which in each case exceptions shall be deemed to be part of the representations and warranties made hereunder, the following representations are true and complete as of the date of the Initial Closing, except as otherwise indicated. The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 3 and the disclosures in any section or subsection of the Disclosure Schedule shall qualify other sections and subsections in this Section 3 only to the extent it is readily apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.

3.1 Authorization. The Purchaser has full power and authority to enter into the Transaction Agreements. The Transaction Agreements to which the Purchaser is a party, when executed and delivered by the Purchaser, will constitute valid and legally binding obligations of the Purchaser, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, or (b) to the extent the indemnification provisions contained in the Investors' Rights Agreement may be limited by applicable federal or state securities laws.

3.2 Valid Issuance of Purchase Common Stock. The Purchaser Common Stock, when issued, sold and delivered in accordance with the terms and for the consideration set forth in the Transaction Agreements, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements and applicable state and federal securities laws. Assuming the accuracy of the representations of the Company in Section 2 of this Agreement, the Purchaser Common Stock will be issued in compliance with all applicable federal and state securities laws.

3.3 Governmental Consents and Filings. Except as set forth in Subsection 3.3 of the Disclosure Schedule, assuming the accuracy of the representations made by the Company in Section 2 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Purchaser in connection with the consummation of the transactions contemplated by this Agreement, except for the filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

3.4 Litigation. There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or currently threatened (i) against the Purchaser or any officer or director of the Purchaser; (ii) that questions the validity of the Transaction Agreements or the right of the Company to enter into them, or to consummate the transactions contemplated by the Transaction Agreements; or (iii) that would reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect, nor is the Purchaser aware of any basis for the foregoing. Neither the Purchaser nor, to the Purchaser's knowledge, any of its officers or directors is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers or directors, such as would affect the Purchaser). There is no action, suit, proceeding or investigation by the Purchaser pending or which the Purchaser intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened (or any basis therefor known to the Purchaser) involving the prior employment of any of the Purchaser's employees, their services provided in connection with the Purchaser's business, any information or techniques allegedly proprietary to any of their former employers or their obligations under any agreements with prior employers.

3.5 SEC Documents. The Purchaser has filed all required SEC Documents required to be filed by it with the SEC since January 1, 2018. As of their respective dates, the SEC Documents (a) were prepared in accordance and complied in all material respects with the requirements of the Securities Laws applicable to such SEC Documents, and (b) did not at the time they were filed (or if amended or superseded by a filing prior to the date of this Agreement then on the date of such filing) 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, not misleading. None of the Purchaser's subsidiaries is required to file any forms, reports or other documents with the SEC.

3.6 Purchaser Financial Statements. The financial statements of the Purchaser included in the SEC Documents (the "**Purchaser Financial Statements**") comply as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. The Purchaser Financial Statements have been prepared in accordance with generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods indicated, except that the unaudited Financial Statements may not contain all footnotes required by GAAP. The Financial Statements fairly present in all material respects the financial condition and operating results of the Purchaser as of the dates, and for the periods, indicated therein, subject in the case of the unaudited Purchaser Financial Statements to normal year-end audit adjustments.

3.7 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by the Purchaser which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Purchaser which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Purchaser has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

3.8 Purchase Entirely for Own Account. This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Series B Securities to be acquired by the Purchaser will be acquired for investment for the Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Series B Securities. The Purchaser has not been formed for the specific purpose of acquiring the Series B Securities.

3.9 Disclosure of Information. The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Series B Securities with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchaser to rely thereon.

3.10 Restricted Securities. The Purchaser understands that the Series B Securities have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Series B Securities are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Series B Securities indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Series B Securities, or the Common Stock into which it may be converted, for resale except as set forth in the Investors' Rights Agreement. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Series B Securities, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

3.11 No Public Market. The Purchaser understands that no public market now exists for the Series B Securities, and that the Company has made no assurances that a public market will ever exist for the Series B Securities.

3.12 Legends. The Purchaser understands that the Series B Securities and any securities issued in respect of or exchange for the Series B Securities, may be notated with one or all of the following legends:

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(a) Any legend set forth in, or required by, the other Transaction Agreements.

(b) Any legend required by the securities laws of any state to the extent such laws are applicable to the Series B Securities represented by the certificate, instrument, or book entry so legended.

3.13 Accredited Investor. The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

3.14 No General Solicitation. Neither the Purchaser, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including, through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Series B Securities.

3.15 Residence. The office of the Purchaser in which its principal place of business is identified in the address or addresses of the Purchaser set forth on signature page hereto.

3.16 Disclosure. The Purchaser has made available to the Company all the information reasonably available to the Purchaser that the Company has requested for deciding whether to enter into the Transaction Agreements. No representation or warranty of the Purchaser contained in this Agreement, as qualified by the Purchaser Disclosure Schedule, and no certificate furnished or to be furnished to the Company at the Closing contains or will contain, as applicable, any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading in light of the circumstances under which they were made. It is understood that this representation is qualified by the fact that the Purchaser has not delivered to the Company, and has not been requested to deliver, a private placement or similar memorandum or any written disclosure of the types of information customarily furnished to purchasers of securities.

4. Conditions to the Purchaser's Obligations at Closing. The obligations of the Purchaser to purchase Series B Securities at the Initial Closing or any Milestone Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true and correct in all respects as of such Closing; *provided* that the Company shall have the opportunity to amend, supplement and update the Company Disclosure Schedule as of the Milestone Closing with respect to any fact, occurrence, event, effect, change, circumstance or development occurring between the Initial Closing and the Milestone Closing, and such amendment, supplement or update will be deemed to have amended the Company Disclosure Schedule and to have modified the Company's representations and warranties contained herein as of the Milestone Closing.

4.2 Performance. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before such Closing.

4.3 Compliance Certificate. The CEO of the Company shall deliver to the Purchaser at such Closing a certificate certifying that the conditions specified in Subsections 4.1 and 4.2 have been fulfilled.

4.4 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Series B Securities pursuant to this Agreement shall be obtained and effective as of such Closing.

4.5 Board of Directors. As of the Initial Closing, the authorized size of the Board shall be three (3), and the Board shall be comprised of Leslie Buttorff, Adam Desmond and Clifford B. Fleet.

4.6 Investors' Rights Agreement. The Company and the Purchaser (other than the Purchaser relying upon this condition to excuse the Purchaser's performance hereunder) shall have executed and delivered the Investors' Rights Agreement.

4.7 Right of First Refusal and Co-Sale Agreement. The Company, the Purchaser (other than the Purchaser relying upon this condition to excuse the Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Right of First Refusal and Co-Sale Agreement.

4.8 Voting Agreement. The Company, the Purchaser (other than the Purchaser relying upon this condition to excuse the Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Voting Agreement.

4.9 Letter Agreement. The Company, Quintel, the Key Employees and the Purchaser (other than the Purchaser relying upon this condition to excuse the Purchaser's performance hereunder) shall have executed and delivered the Letter Agreement.

4.10 Restated Certificate. The Company shall have filed the Restated Certificate with the Secretary of State of Colorado on or prior to the Closing, which shall continue to be in full force and effect as of the Closing.

4.11 Secretary's Certificate. The Secretary of the Company shall have delivered to the Purchaser at the Closing a certificate certifying (i) the Bylaws of the Company, (ii) resolutions of the Board approving the Transaction Agreements and the transactions contemplated under the Transaction Agreements, and (iii) resolutions of the stockholders of the Company approving the Restated Certificate and the other matters contemplated by the Transaction Agreements.

4.12 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to the Purchaser, and the Purchaser (or its counsel) shall have received all such counterpart original and certified or other copies of such documents as reasonably requested. Such documents may include good standing certificates.

4.13 Preemptive Rights. The Company shall have fully satisfied (including with respect to rights of timely notification) or obtained enforceable waivers in respect of any preemptive or similar rights directly or indirectly affecting any of its securities.

4.15 D&O Insurance. Following the Initial Closing, the Company will obtain and maintain a Directors' and Officers' (D&O) Insurance Policy on commercially reasonable terms, as determined by the Company's Board of Directors, on directors and officers of the Company in the aggregate amount of $5,000,000 payable to the Company.

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to sell Series B Securities to the Purchaser at the Initial Closing or any Milestone Closing are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

5.1 Representations and Warranties. The representations and warranties of the Purchaser contained in Section 3 shall be true and correct in all respects as of such Closing; *provided* that the Purchaser shall have the opportunity to amend, supplement and update the Purchaser Disclosure Schedule as of the Milestone Closing with respect to any fact, occurrence, event, effect, change, circumstance or development occurring between the Initial Closing and the Purchaser Closing, and such amendment, supplement or update will be deemed to have amended the Purchaser Disclosure Schedule and to have modified the Purchaser's representations and warranties contained herein as of the Milestone Closing.

5.2 Performance. The Purchaser shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by them on or before such Closing.

5.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Series B Securities pursuant to this Agreement shall be obtained and effective as of the Closing.

5.4 Investors' Rights Agreement. The Purchaser shall have executed and delivered the Investors' Rights Agreement.

5.5 Right of First Refusal and Co-Sale Agreement. The Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Right of First Refusal and Co-Sale Agreement.

5.6 Voting Agreement . The Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Voting Agreement.

5.7 Letter Agreement. The Purchaser shall have executed and delivered the Letter Agreement.

5.8 Secretary's Certificate. The Secretary of the Purchaser shall have delivered to the Company at the Closing a certificate certifying (i) the Bylaws of the Purchaser and (ii) resolutions of the Board of the Purchaser approving the Transaction Agreements and the transactions contemplated under the Transaction Agreements.

5.9 Compliance Certificate. The CEO of the Purchaser shall deliver to the Company at such Closing a certificate certifying that the conditions specified in Subsections 5.1 and 5.2 have been fulfilled.

6. Miscellaneous.

6.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Company and the Purchaser contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing.

6.2 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.3 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

6.4 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt, or (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Subsection 6.6. If notice is given to the Company, it shall be sent to 16194 W 45th Drive, Golden, CO 80403, Attention: Chief Executive Officer, a copy (which shall not constitute notice) shall also be sent to Holland & Hart LLP, 1800 Broadway, Suite 300, Boulder, CO 80302, Attention: Amos Barclay, Email: AWBarclay@hollandhart.com; and if notice is given to the Purchaser, it shall be sent to 8560 Main Street, Suite 4, Williamsville, New York 14221, Attention: Chief Executive Officer a copy (which shall not constitute notice) shall also be given to Troutman Sanders LLP, 1001 Haxall Point 15th Floor Richmond, VA 23219, Attention: Coby Beck, Email: coby.beck@troutman.com.

6.7 No Finder's Fees. Other than the Company's fees payable to Golden Eagle Partners for its services in connection with the transactions contemplated hereby, each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. The Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Purchaser or any of its officers, employees or representatives is responsible. The Company agrees to indemnify and hold harmless the Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

6.8 Fees and Expenses. Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement and the other Transaction Agreements.

6.9 Attorneys' Fees. If any action at law or in equity (including, arbitration) is necessary to enforce or interpret the terms of any of the Transaction Agreements, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

6.10 Amendments and Waivers. Except as set forth in Subsection 1.3(a) of this Agreement, any term of this Agreement may be amended, terminated or waived only with the written consent of the Company and (i) the holders of at least 50% of the then-outstanding Shares. Any amendment or waiver effected in accordance with this Subsection 6.10 shall be binding upon the Purchaser and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.11 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.12 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.13 Entire Agreement. This Agreement (including the Exhibits hereto), the Restated Certificate and the other Transaction Agreements constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

6.14 Termination of Closing Obligations. The Purchaser shall have the right to terminate its obligations to complete the Initial Closing and any Milestone Closing, as the case may be, if prior to the occurrence thereof, any of the following occurs:

(a) the Company consummates a Deemed Liquidation Event (as defined in the Restated Certificate);

(b) the closing of an initial public offering of the Company, in which case the Purchaser may terminate their obligations hereunder immediately prior to, or contingent upon, such closing; or

(c) the Company (i) applies for or consents to the appointment of a receiver, trustee, custodian or liquidator of itself or substantially all of its property, (ii) becomes subject to the appointment of a receiver, trustee, custodian or liquidator of itself or substantially all of its property, (iii) makes an assignment for the benefit of creditors, (iv) institutes any proceedings under the United States Bankruptcy Code or any other federal or state bankruptcy, reorganization, receivership, insolvency or other similar law affecting the rights of creditors generally, or files a petition or answer seeking reorganization or an arrangement with creditors to take advantage of any insolvency law, or files an answer admitting the material allegations of a bankruptcy, reorganization or insolvency petition filed against it, or (v) becomes subject to any involuntary proceedings under the United States Bankruptcy Code or any other federal or state bankruptcy, reorganization, receivership, insolvency or other similar law affecting the rights of creditors generally, when proceeding is not dismissed within thirty (30) days of filing, or have an order for relief entered against it in any proceedings under the United States Bankruptcy Code.

6.15 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the federal courts of the United States of America for the district of Delaware or the courts of the state of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the federal courts of the United States of America for the district of Delaware or the courts of the state of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION AGREEMENTS, THE SERIES B SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Series B Preferred Securities Purchase Agreement as of the date first written above.

COMPANY:

PANACEA LIFE SCIENCES, INC.

By: /s/ Leslie Buttorff
Name: Leslie Buttorff
Title: CEO

Address: 16194 West 45th Drive,
Golden, CO 80403

Attn: Leslie Buttorff
Telephone: 303-434-0215
Facsimile:
Email: leslie.buttorff@panacealife.com

PURCHASER:

22ND CENTURY GROUP, INC.

By: /s/ Clifford B. Fleet
Name: Clifford B. Fleet
Title: President and CEO

Address: 8560 Main Street, Suite 4,
Williamsville, New York 14221

Attn: Chief Executive Officer
Telephone: 716-270-1523
Facsimile: 716-877-3064
Email: cfleet@xxiicentury.com

EXHIBITS

Exhibit A - **FORM OF SECOND AMENDED AND RESTATED ARTICLES OF INCORPORATION**

Exhibit B - **FORM OF NOTE**

Exhibit C - **FORM OF WARRANT**

Exhibit D - **COMPANY DISCLOSURE SCHEDULE**

Exhibit E - **PURCHASER DISCLOSURE SCHEDULE**

Exhibit F - **FORM OF INVESTORS' RIGHTS AGREEMENT**

Exhibit G - **FORM OF RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**

Exhibit H - **FORM OF VOTING AGREEMENT**

Exhibit I - **FORM OF LETTER AGREEMENT**

Exhibit J - **FORM OF SECURITY AGREEMENT**

Exhibit 10.2

THIS SECURITY (AND THE SECURITIES ISSUABLE UPON CONVERSION OF THIS SECURITY) HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE " SECURITIES ACT"), OR ANY APPLICABLE STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS. THESE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES. THIS SECURITY AND THE SECURITIES ISSUABLE UPON CONVERSION OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT SECURED BY SUCH SECURITIES.

PANACEA LIFE SCIENCES, INC.

Convertible Note

Issuance Date: December 3, 2019 Original Principal Amount: $7,000,000
Note No.: 1

FOR VALUE RECEIVED, Panacea Life Sciences, Inc., a Colorado corporation (the "**Company**"), hereby promises to pay to 22nd Century Group, Inc., a Nevada corporation, or its registered assigns (the "**Holder**"), the amount set out above as the Original Principal Amount (as reduced in connection with the conversion of this Note, the "**Principal**") on the Maturity Date and to pay interest ("**Interest**") on any outstanding Principal at the Interest Rate (as defined below) from the date set out above as the Issuance Date (the "**Issuance Date**") until the same is paid in full, whether upon the Maturity Date, the Conversion Date or otherwise (in each case in accordance with the terms hereof). Upon payment in full of all Principal and Interest payable hereunder (or upon conversion of this Note (as defined below), this Note shall be surrendered to the Company for cancellation. Certain capitalized terms used herein are defined in Section 22.

THE OBLIGATIONS DUE UNDER THIS NOTE ARE SECURED BY A SECURITY AGREEMENT (THE "**SECURITY AGREEMENT**") DATED AS OF THE DATE HEREOF AND EXECUTED BY THE COMPANY FOR THE BENEFIT OF HOLDER. ADDITIONAL RIGHTS OF HOLDER ARE SET FORTH IN THE SECURITY AGREEMENT.

1 . PAYMENTS OF PRINCIPAL . On the Maturity Date, the Company shall pay to the Holder an amount in cash representing all outstanding Principal. The Company may prepay any portion of the outstanding Principal, without penalty, upon at least ten (10) Business Days' prior written notice to the Holder.

2. INTEREST; INTEREST RATE. Interest on this Note shall (i) accrue at the Interest Rate, (ii) commence accruing on the Issuance Date, (iii) be computed on the basis of a 365-day year for the actual number of days elapsed, and (iii) be payable in cash to the Holder on the first day of the calendar month following the calendar month in which it accrues, commencing on January 1, 2020, and continuing to be due on the same day of each succeeding calendar month thereafter so long as this Note is outstanding, together with a final payment of all unpaid accrued interest which shall be due on the Maturity Date or the Conversion Date (or on any such earlier date of payment of this Note is prepaid in full). From and after the occurrence and during the continuance of any Event of Default, the applicable Interest Rate shall automatically be increased by five percent (5%) per annum above the Interest Rate otherwise applicable in accordance with the terms hereof. In the event that such Event of Default is subsequently cured, the adjustment referred to in the preceding sentence shall cease to be effective as of the date of such cure. Any payment of Principal or Interest scheduled for a day which is not a Business Day shall be due on the next following Business Day.

3. CONVERSION. At any time after the Issuance Date but prior to the Maturity Date, the Holder shall have the right, but not the obligation, to convert, upon three (3) Business Days prior written notice to the Company, the outstanding Principal and any accrued and unpaid Interest thereon into shares of Series B Preferred Stock at a conversion price per share equal to $1.875, subject to adjustment as herein provided (the "**Conversion Price**"). Such notice shall state the amount of the outstanding Principal and accrued and unpaid Interest to be converted. If the notice provides that the Holder is converting all of the outstanding Principal, any accrued and unpaid Interest that will not be converted into shares of Series B Preferred Stock shall be paid by the Company to the Holder by check or wire transfer of immediately available funds to an account specified in writing by the Holder on or prior to the date the Company delivers the shares of Series B Preferred Stock to the Holder. The Company shall not issue any fraction of a share of Series B Preferred Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Series B Preferred Stock, the Company shall round such fraction of a share of Common Stock up to the nearest whole share. Any conversion of this Note pursuant to this Section 3 shall be deemed to have been made upon the satisfaction of all of the conditions set forth in this Section 3 and on and after such date the Holder entitled to receive the shares of Series B Preferred Stock upon such conversion shall be treated for all purposes as the record holder of such shares. If this Note is converted in part only, upon conversion of such part hereof, the Company shall execute and deliver to the Holder upon surrender of this Note a new Note in the aggregate principal amount equal to the then unconverted portion of the Principal of this Note plus any accrued but unpaid Interest and in all other respects identical to this Note.

4. ADJUSTMENT OF CONVERSION PRICE. If the Company, at any time after the Issuance Date, (i) pays a stock dividend on one or more classes of its then outstanding shares of Series B Preferred Stock, or otherwise makes a distribution on any class of capital stock that is payable in shares of Series B Preferred Stock, (ii) subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its then outstanding shares of Series B Preferred Stock into a larger number of shares, or (iii) combines (by combination, reverse stock split or otherwise) one or more classes of its then outstanding shares of Series B Preferred Stock into a smaller number of shares, then in each such case the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Series B Preferred Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Series B Preferred Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this paragraph occurs during the period that a Conversion Price is used in any calculation hereunder, then in such calculation such Conversion Price shall be adjusted appropriately to reflect such event.

5. RIGHTS UPON EVENT OF DEFAULT.

(a) Event of Default. Each of the following events shall constitute an "**Event of Default**":

(i) the Company's failure to pay to the Holder any amount of Principal or Interest when and as due under this Note and the continuation of such failure for a period of at least ten (10) Business Days;

(ii) the commencement by the Company of a voluntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated as bankrupt or insolvent, or the consent by it to the entry of a decree, order, judgment or other similar document in respect of the Company in an involuntary case or proceeding under any such applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable federal, state or foreign law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the execution of a composition of debts, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action; or

(iii) the commencement against the Company by a third party of an Insolvency Proceeding and the same shall not be dismissed within sixty (60) days of their initiation;

(b) If an Event of Default specified in Sections 5(a)(i) occurs, then the Holder may, by written notice to the Company, declare this Note to be forthwith due and payable, as to Principal and all accrued Interest, whereupon this Note shall become forthwith due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Company. If any Event of Default specified in Sections 5(a)(ii) or (iii) occurs, the Principal of and accrued Interest on this Note shall automatically forthwith become due and payable without presentment, demand, protest or notice of any kind, all of which are hereby expressly waived by the Company.

(c) If any Event of Default occurs and is continuing, the Holder may pursue any available remedy to collect the payment of Principal and Interest or to enforce the performance of any provision of this Note. If an Event of Default occurs and is continuing, the holder of this Note may proceed to protect and enforce its rights by an action at law, suit in equity or other appropriate proceeding. No course of dealing and no delay on the part of the holder of this Note in exercising any right, power or remedy shall operate as a waiver thereof or otherwise prejudice such holder's rights, powers or remedies. No right, power or remedy conferred by this Note upon the holder hereof shall be exclusive of any other right, power or remedy referred to herein or now or hereafter available at law, in equity, by statute or otherwise.

6 . NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its articles of incorporation or bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, 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 Note, and will at all times in good faith carry out all of the provisions of this Note and take all action as may be required to protect the rights of the Holder of this Note.

7. VOTING RIGHTS. The Holder shall have no voting rights as the holder of this Note.

8 . COVENANTS. Until all of the Notes have been converted or otherwise satisfied in accordance with their terms, the Company shall maintain and preserve its existence, rights and privileges.

9. AMENDING THE TERMS OF THIS NOTE. The prior written consent of the Holder shall be required for any change or amendment to this Note.

10. TRANSFER. This Note may be offered, sold, assigned or transferred by the Holder in whole or in part, subject only to the provisions of the restrictive legend set forth at the top of the first page of this Note; provided that, so long as no Event of Default has occurred and is continuing, any such sale, assignment or transfer shall be subject to the prior written consent of the Company.

11. REISSUANCE OF THIS NOTE.

(a) Transfer. If this Note is to be transferred as permitted under Section 10 above, the Holder shall surrender this Note to the Company along with a duly executed copy of the transfer instrument attached hereto as Exhibit A, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note (in accordance with Section 11(c)), registered as the Holder may request, representing the outstanding Principal being transferred by the Holder and, if less than the entire outstanding Principal is being transferred, a new Note (in accordance with Section 10(c)) to the Holder representing the outstanding Principal not being transferred.

(b) Lost, Stolen or Mutilated Note. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Note (as to which a written certification and the indemnification contemplated below shall suffice as such evidence), and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary and reasonable form and, in the case of mutilation, upon surrender and cancellation of this Note, the Company shall execute and deliver to the Holder a new Note (in accordance with Section 11(c)) representing the outstanding Principal.

(c) Issuance of New Notes. Whenever the Company is required to issue a new Note pursuant to the terms of this Note, such new Note (i) shall be of like tenor with this Note, (ii) shall represent, as indicated on the face of such new Note, the Principal remaining outstanding, (iii) shall have an issuance date, as indicated on the face of such new Note, which is the same as the Issuance Date of this Note, (iv) shall have the same rights and conditions as this Note, and (v) shall represent accrued and unpaid Interest on the Principal of this Note, from the Issuance Date.

12. REMEDIES, CHARACTERIZATIONS, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder's right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Note. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required. The Company shall provide all information and documentation to the Holder that is requested by the Holder to enable the Holder to confirm the Company's compliance with the terms and conditions of this Note.

13. CONSTRUCTION; HEADINGS. This Note shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Note are for convenience of reference and shall not form part of, or affect the interpretation of, this Note. Terms used in this Note but defined in the Purchase Agreement shall have the meanings ascribed to such terms on the Issuance Date in the Purchase Agreement unless otherwise consented to in writing by the Holder.

14. FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party.

15. NOTICES; CURRENCY; PAYMENTS.

(a) Notices. All notices and other communications given or made pursuant hereto shall be in writing to the addresses set forth on the signature page hereof and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with an internationally recognized overnight courier, specifying next day delivery, with written verification of receipt.

(b) Currency. All Principal, Interest and other amounts owing under this Note or any Transaction Document that, in accordance with their terms, are paid in cash, shall be paid in United States Dollars.

(c) Payments. Whenever any payment of cash is to be made by the Company to any Person pursuant to this Note, unless otherwise expressly set forth herein, such payment shall be made in lawful money of the United States of America by (i) wire transfer of immediately available funds to such Person according to wire transfer instructions previously provided to the Company in writing or (ii) a certified check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing. Whenever any amount expressed to be due by the terms of this Note is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day.

16. CANCELLATION. After all Principal and accrued and unpaid Interest at any time owed on this Note have been paid in full (or upon conversion of this Note in accordance with Section 3 hereof, together with payment of any Interest due and owing upon conversion in accordance with Section 3 hereof), this Note shall automatically be deemed canceled, shall be surrendered to the Company for cancellation and shall not be reissued.

17. WAIVER OF NOTICE. To the extent permitted by law, the Company hereby irrevocably waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note.

18. SEVERABILITY. If any provision of this Note is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Note shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Note.

19. GOVERNING LAW/JURISDICTION. ALL QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, ENFORCEMENT AND INTERPRETATION OF THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPLES THAT WOULD DEFER TO THE LAW OF ANOTHER JURISDICTION. THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY SUBMIT TO THE JURISDICTION OF THE FEDERAL COURTS OF THE UNITED STATES OF AMERICA FOR THE DISTRICT OF DELAWARE OR THE COURTS OF THE STATE OF DELAWARE FOR THE ADJUDICATION OF ANY DISPUTE BROUGHT BY THE COMPANY OR THE HOLDER HEREUNDER, IN CONNECTION HEREWITH OR WITH ANY TRANSACTION CONTEMPLATED HEREBY OR DISCUSSED HEREIN, AND HEREBY IRREVOCABLY WAIVE, AND AGREE NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING BROUGHT BY THE COMPANY OR THE HOLDER, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT, OR THAT SUCH SUIT, ACTION OR PROCEEDING IS IMPROPER. THE COMPANY AND THE HOLDER EACH 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 MANNER PERMITTED BY LAW. THE COMPANY AND THE HOLDER HEREBY WAIVE ALL RIGHTS TO A TRIAL BY JURY.

20. MAXIMUM PAYMENTS. Nothing contained herein shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest required to be paid or other charges hereunder exceed the maximum permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the Holder and, if there shall remain any excess after such application, such excess shall be refunded to the Company.

21. COLLECTION. The Company agrees to pay all reasonable costs or expenses incurred by the Holder or the Agent, on behalf of the holders of the Notes, including reasonable attorneys' fees (including those for appellate proceedings), incurred in connection with any Event of Default or in connection with the collection or attempted collection or enforcement hereof, whether or not legal proceedings may have been instituted.

22. CERTAIN DEFINITIONS. For purposes of this Note, the following terms shall have the following meanings:

(a) "**Business Day**" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(b) "**Conversion Date**" means the date upon which this Note is converted pursuant to Section 3.

(c) "**Insolvency Proceeding**" means any proceeding commenced by or against any Person under any provision of the Bankruptcy Code (Chapter 11 of Title 11 of the United States Code) or under any other bankruptcy or insolvency law, assignments for the benefit of creditors, or proceedings seeking reorganization, arrangement, or other similar relief.

(d) "**Interest Rate**" means ten percent (10%) per annum, as may be adjusted pursuant to Section 2 hereof.

(e) "**Maturity Date**" means the earlier to occur of (i) the fifth (5th) anniversary of the Issuance Date or (ii) the date that Warrant is initially exercised by the Holder.

(f) "**Person**" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity or a government or any department or agency thereof.

(g) "**Series B Preferred Stock**" means the Series B Preferred Stock, par value $0.01 per share, of the Company.

(h) "**Warrant**" means that certain Warrant to purchase shares of Series B Preferred Stock at an exercise price of $2.344 per share issued by the Company to the Holder on the date hereof.

IN WITNESS WHEREOF, this Note is executed as of the date first above written.

"Company"

PANACEA LIFE SCIENCES, INC.

By: /s/ Leslie Buttorff
Name: Leslie Buttorff
Title: CEO

Address: 16194 W 45th Ave
Golden, CO 80403

"Holder"

22nd CENTURY GROUP, INC.

By: /s/ Clifford B. Fleet
Name: Clifford B. Fleet
Title: President and CEO

Address: 8560 Main Street
Suite 4
Williamsville, NY 14221

EXHIBIT A

FOR VALUE RECEIVED, the undersigned hereby sell(s), assign(s) and transfer(s) unto[NAME OF ASSIGNEE] the within instrument of Panacea Life Sciences, Inc. and does hereby irrevocably constitute and appoint [_____] as Attorney to transfer said instrument on the books of the within-named Company, with full power of substitution in the premises.

Please Insert Social Security or Other Identifying Number of Assignee: _____

Dated: _____ ____, 20__

By: _____
Name:
Title:

NOTICE: The signature to this assignment must correspond with the name as written upon the face of the within instrument in every particular, without alteration or enlargement or any change whatever.

Exhibit 10.3

THIS SECURITY (AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY) HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY APPLICABLE STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS. THESE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT SECURED BY SUCH SECURITIES

PANACEA LIFE SCIENCES, INC.

Warrant To Purchase Series B Preferred Stock

Warrant No.: 2019-1
Date of Issuance: December 3, 2019

Panacea Life Sciences, Inc., a Colorado corporation (the "**Company**"), hereby certifies that, for value received, 22ND CENTURY GROUP, INC., a Nevada corporation ("**Holder**"), is entitled to purchase, at the Exercise Price (as defined below) per Warrant Share (as defined below) at any time on or following the Exercise Trigger Date (defined below) up to that number of shares of the Series B Preferred Stock, subject to adjustment as herein provided (as so adjusted from time to time, the "**Warrant Shares**") that would constitute (i) when issued and when added to the shares of Series B Preferred Stock previously issued to the Holder pursuant to that certain Series B Preferred Stock Purchase Agreement, and (ii) after taking into account the redemption of the Company Common Stock in accordance Section 1(f) hereof, fifty one percent (51%) of the outstanding shares of capital stock of the Company on a fully-diluted basis, that is, treating as outstanding for this purpose all shares of capital stock issuable upon exercise or conversion of outstanding warrants, debentures, options, purchase rights or convertible securities (whether or not exercisable or convertible as of the date hereof), as of the date of exercise.

1. EXERCISE OF WARRANT.

Duration. This Warrant shall be exercisable by the registered holder thereof on any Business Day on or following the Exercise Trigger Date.

Exercise. Subject to the provisions of this Warrant, on or following the Exercise Trigger Date, the holder shall have the right to purchase from the Company (and the Company shall be obligated to issue and sell to such holder) at the Exercise Price per share, the number of fully paid and non-assessable Warrant Shares up to the maximum amount described in Section 1 of this Warrant. The Warrant shall be exercisable upon the earlier of (i) the five-year anniversary of the Date of Issuance, and (ii) the first day of the fiscal year of the Company immediately following the Company achieving at least $200 million in gross revenues (calculated in accordance with accounting principles generally accepted in the United States of America) for two (2) consecutive fiscal years (the "**Exercise Trigger Date**"). This Warrant shall continue to be exercisable on or following the Exercise Trigger Date.

Exercise Price. For purposes of this Warrant, "Exercise Price" means a price per Warrant Share equal to $2.344, subject to adjustment as provided herein.

Manner of Exercise. Subject to the terms and conditions hereof, this Warrant may be exercised by the Holder on any day on or following the Exercise Trigger Date, in whole or in part, by delivery (whether via facsimile, email, or otherwise) of a written notice, in the form attached hereto as **Exhibit A** (the "***Exercise Notice***"), of the Holder's election to exercise this Warrant. Within three (3) Business Day following an exercise of this Warrant as aforesaid, the Holder shall deliver payment to the Company in any of the following forms (in the Holder's sole discretion, subject to Section 1(f) below) (i) cash by wire transfer of immediately available funds, (ii) shares of XXII Common Stock or (iii) a combination of cash by wire transfer of immediately available funds and shares of XXII Common Stock, in any each case, equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant was so exercised (the "***Aggregate Exercise Price***"). The Holder shall not be required to deliver the original of this Warrant in order to effect an exercise hereunder. Execution and delivery of an Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original of this Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. Execution and delivery of an Exercise Notice for all of the then-remaining Warrant Shares shall have the same effect as cancellation of the original of this Warrant after delivery of the Warrant Shares in accordance with the terms hereof. On or before the second (2^{nd}) Business Day following the date on which the Company has received such Exercise Notice and payment of the Aggregate Exercise Price for the number of Warrant Shares for which this Warrant was so exercised, the Company shall issue and deliver to the Holder or, at the Holder's instruction pursuant to the Exercise Notice, the Holder's agent or designee, in each case, sent by reputable overnight courier to the address as specified in the applicable Exercise Notice, a certificate, registered in the Company's share register in the name of the Holder or its designee (as indicated in the applicable Exercise Notice), for the number of shares of Series B Preferred Stock to which the Holder is entitled pursuant to such exercise. Upon delivery of an Exercise Notice and payment of the Aggregate Exercise Price for the number of Warrant Shares for which this Warrant was so exercised, 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 certificates evidencing such Warrant Shares.

XXII Common Stock. If upon exercise of this Warrant in accordance with Section 1(d) hereof the Holder determines (in its sole discretion) to pay all or a portion of the Aggregate Exercise Price by delivering to the Company shares of XXII Common Stock, the value of each share of XXII Common Stock shall be equal to the 30-day VWAP on the date of exercise; provided that in no event shall the value of each share of XXII Common Stock be less than $1.00.

Redemption of Company Common Stock. Promptly, and in any event within five (5) Business Days following any exercise of this Warrant (subject to any applicable holding period), the Company shall redeem shares of Company Common Stock beneficially owned by Quintel. The shares of Company Common Stock shall be redeemed by the Company by exchanging the cash and/or shares of XXII Common Stock received by the Company, as applicable, as payment of all or a portion of the Aggregate Exercise Price. Each share of Company Common Stock to be redeemed shall be valued at the Exercise Price and each share of XXII Common Stock shall be valued at the 30-day VWAP on the date of exercise; provided that in no event shall the value of each share of XXII Common Stock be less than $1.00.

Principal Market Regulation. The Holder shall only issue shares of XXII as payment of the Aggregate Exercise Price in an amount that would not cause the Company to breach its obligations under the rules or regulations of the Principal Trading Market (the "***Exchange Cap***"), except that such limitation shall not apply in the event that XXII (i) obtains the approval of its stockholders as required by the applicable rules of the Principal Trading Market for issuances of XXII Common Stock in excess of such amount, or (ii) obtains a written opinion from outside counsel to XXII that such approval is not required, which opinion shall be reasonably satisfactory to the Company. Until such approval or written opinion is obtained, the Holder shall not issue to the Company, upon exercise of this Warrant or issuance under the Purchase Agreement, shares of XXII Common Stock in an amount greater than the Exchange Cap.

Partial Exercise. The Warrant shall be exercisable at any time on or following the Exercise Trigger Date, either as an entirety or for part only of the number of Warrant Shares evidenced by this Warrant. If less than all of the Warrant Shares evidenced by this Warrant are exercised at any time on or following the Exercise Trigger Date in exchange for payment of the Exercise Price for such Warrant Shares, the Company shall issue, at its expense, a new Warrant, in substantially the form of this Warrant, for the remaining number of Warrant Shares evidenced by this Warrant.

Insufficient Authorized Shares. From and after the Issuance Date, the Company shall at all times keep reserved for issuance under this Warrant a number of shares of Series B Preferred Stock as shall be necessary to satisfy the Company's obligation to issue shares of Series B Preferred Stock hereunder. If, notwithstanding the foregoing, and not in limitation thereof, at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved shares of Series B Preferred Stock to satisfy its obligation to reserve for issuance upon exercise of this Warrant (the "***Required Reserve Amount***"), then the Company shall promptly take all action necessary to increase the Company's authorized shares of Series B Preferred Stock, as applicable, to an amount sufficient to allow the Company to reserve the Required Reserve Amount.

2 . ADJUSTMENT OF EXERCISE PRICE. Without limiting any provision of Section 3, if the Company, at any time after the Issuance Date, (i) pays a stock dividend on one or more classes of its then outstanding shares of Series B Preferred Stock or Company Common Stock, or otherwise makes a distribution on any class of capital stock that is payable in shares of Series B Preferred Stock or Company Common Stock, (ii) subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its then outstanding shares of Series B Preferred Stock or Company Common Stock into a larger number of shares or (iii) combines (by combination, reverse stock split or otherwise) one or more classes of its then outstanding shares of Series B Preferred Stock or Company Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Series B Preferred Stock or Company Common Stock, as applicable, outstanding immediately before such event and of which the denominator shall be the number of shares of Series B Preferred Stock or Company Common Stock, as applicable, outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this paragraph occurs during the period that an Exercise Price is used in any calculation hereunder, then in such calculation such Exercise Price shall be adjusted appropriately to reflect such event.

3. FUNDAMENTAL TRANSACTIONS.

Fundamental Transactions. Prior to the consummation of each Fundamental Transaction pursuant to which holders of shares of Series B Preferred Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Series B Preferred Stock (a "***Corporate Event***"), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the shares of the Series B Preferred Stock (or other securities, cash, assets or other property) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). Provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder.

(b) Application. The provisions of this Section 3 shall apply similarly and equally to successive Fundamental Transactions and Corporate Events.

4. CERTAIN EVENTS. If any event occurs as to which the other provisions of Sections 2 and 3 are not strictly applicable but the lack of any adjustment would not fairly protect the purchase rights of the Holder of this Warrant in accordance with the basic intent and principles of such provisions, or if strictly applicable would not fairly protect the purchase rights of the Holder of this Warrant in accordance with the basic intent and principles of such provisions, then at the request of the Holder the Company shall appoint a firm of independent certified public accountants of recognized national standing reasonably satisfactory to the Holder, which shall give their opinion upon the adjustment, if any, on a basis consistent with the basic intent and principles established in the other provisions of Sections 2 and 3, necessary to preserve, without dilution, the exercise rights of the registered holder of this Warrant. Upon receipt of such opinion, the Company shall forthwith make the adjustments described therein.

5. REPRESENTATIONS AND WARRANTIES OF HOLDER. The Holder hereby represents and warrants to the Company that:

(a) Holder acknowledges that this Warrant is issued to the Holder in reliance upon the Holder's representation to the Company that this Warrant will be acquired for investment for the Holder's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that such Holder has no present intention of selling, granting any participation in, or otherwise distributing the same. Holder further represents that the Holder does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person, with respect to this Warrant.

(b) Holder is an investor in securities of companies in the development stage and acknowledges that it, he or she is able to fend for itself, himself or herself, can bear the economic risk of its, his or her investment, and has such knowledge and experience in financial or business matters that it, he or she is capable of evaluating the merits and risks of the investment in this Warrant. Holder also represents it, he or she has not been organized solely for the purpose of acquiring this Warrant.

(c) Holder is an "accredited investor" within the meaning of Rule 501 of Regulation D, as presently in effect, as promulgated by the Securities and Exchange Commission (the "***SEC***") under the Securities Act.

(d) Holder understands that this Warrant is characterized as a "restricted security" under the federal securities laws inasmuch as it is being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the Securities Act only in certain limited circumstances. In this connection, Holder represents that it is familiar with Rule 144 as promulgated by the SEC under the Securities Act, as presently in effect, and understands the resale limitations imposed thereby and by the Securities Act.

6 . NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of the Company's articles of incorporation, the Company's bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, 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, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Series B Preferred receivable upon the exercise of this Warrant above the Exercise Price then in effect and (ii) shall take all such actions as may be reasonably necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Series B Preferred Stock upon the exercise of this Warrant.

7 . WARRANT HOLDER NOT DEEMED A STOCKHOLDER . Except as otherwise specifically provided herein, the Holder, solely in its capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in its capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which it is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 7, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders.

8. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 8(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 8(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant (as to which a written certification and the indemnification contemplated below shall suffice as such evidence), and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder satisfactory to the Company and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 8(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 8(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, no warrants for fractional shares of Series B Preferred Stock shall be given.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Sections 8(a) or 8(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Series B Preferred Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

9. NOTICES. Except as may be otherwise provided herein, all notices, requests, waivers and other communications made pursuant to this Warrant shall be in writing to the addresses set forth on the signature pages hereof and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with an internationally recognized overnight courier, specifying next day delivery, with written verification of receipt.

10. NOTICES OF CERTAIN CORPORATE ACTIONS. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon each adjustment of the Exercise Price and the number of Warrant Shares, setting forth in reasonable detail, and certifying, the calculation of such adjustment(s) and (ii) at least fifteen (15) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Series B Preferred Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Series B Preferred Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder and (iii) at least ten (10) Business Days prior to the consummation of any Fundamental Transaction.

11. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party.

12. SEVERABILITY. If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

13. GOVERNING LAW. This Warrant shall be governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of Law provision or rule (whether of the State of Delaware or any other jurisdiction).

14. REMEDIES, CHARACTERIZATION, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company covenants to the Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, exercises and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required. The Company shall provide all information and documentation to the Holder that is requested by the Holder to enable the Holder to confirm the Company's compliance with the terms and conditions of this Warrant. The issuance of shares and certificates for shares as contemplated hereby upon the exercise of this Warrant shall be made without charge to the Holder or such shares for any issuance tax or other costs in respect thereof, provided that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than the Holder or its agent on its behalf.

15. TRANSFER. This Warrant may not be offered for sale, sold, transferred or assigned by the Holder except in a manner consistent with the restrictive legend on the first page of this Warrant; provided, however, that no such assignment shall relieve the Holder of its obligations hereunder if such assignee fails to perform such obligations.

16. CERTAIN DEFINITIONS. For purposes of this Warrant, the following terms shall have the following meanings:

(a) "***30-day VWAP***" means, as of any date, the volume weighted average price per share of the XXII Common Stock on the Principal Trading Market (as reported by Bloomberg L.P. (or its successor) or, if not available, by another authoritative source mutually agreed by the Company and the Holder) from 9:30 a.m. (New York City time) on the Trading Day that is thirty (30) Trading Days preceding such date to 4:00 p.m. (New York City time) on the last Trading Day immediately preceding such date.

(b) "***Affiliate***" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act. With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

(c) "***Business Day***" means any day other than Saturday, Sunday or other day on which commercial banks in the city of New York, New York are authorized or required by law to remain closed.

(d) "***Company Common Stock***" means the common stock, par value $0.01 per share of the Company.

(e) "***Convertible Securities***" means any stock or other security (other than Options) that is at any time and under any circumstances, directly or indirectly, convertible into, exercisable or exchangeable for, or which otherwise entitles the holder thereof to acquire, any shares of Company Common Stock or Series B Preferred Stock.

(f) "***Fundamental Transaction***" means that (i) the Company or any of its subsidiaries shall, directly or indirectly, in one or more related transactions, (1) consolidate or merge with or into (whether or not the Company or any of its subsidiaries is the surviving corporation) any other Person, or (2) sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of its respective properties or assets to any other Person, or (3) allow any other Person to make a purchase, tender or exchange offer that is accepted by the holders of more than 50% of the outstanding shares of Voting Stock of the Company (not including any shares of Voting Stock of the Company held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (4) consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with any other Person whereby such other Person acquires more than 50% of the outstanding shares of Voting Stock of the Company (not including any shares of Voting Stock of the Company 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), or (5) reorganize, recapitalize or reclassify the Company Common Stock, or (ii) any "person" or "group" (as these terms are used for purposes of Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***") and the rules and regulations promulgated thereunder) other than Quintel or the Holder, or Affiliates of either, is or shall become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of greater than 50% of the aggregate ordinary voting power represented by issued and outstanding Voting Stock of the Company.

(g) "***Person***" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity or a government or any department or agency thereof.

(h) "***Options***" means any rights, warrants or options to subscribe for or purchase shares of Company Common Stock or Convertible Securities.

(i) "***Principal Trading Market***" means the trading market on which the XXII Common Stock is primarily listed on and quoted for trading, and which, as of the Issue Date is The NYSE American.

(j) "***Quintel***" means Quintel-MC, Incorporated, a Colorado corporation.

(k) "***Series B Preferred Stock***" means the series B preferred stock, par value $0.01 per share, of the Company.

(l) "***Series B Preferred Stock Purchase Agreement***" means the Series B Preferred Stock Purchase Agreement, dated as of December 3, 2019, by and between the Company and the Holder.

(m) "***Voting Stock***" of a Person means capital stock of such Person of the class or classes pursuant to which the holders thereof have the general voting power to elect, or the general power to appoint, at least a majority of the board of directors, managers or trustees of such Person (irrespective of whether or not at the time capital stock of any other class or classes shall have or might have voting power by reason of the happening of any contingency).

(n) "***Trading Day***" means a day on which the Principal Trading Market is open for trading.

(o) "***XXII Common Stock***" means the common stock, par value $ $0.00001 per share of XXII.

[*signature page follows*]

IN WITNESS WHEREOF, the Company and the Holder have caused this Warrant to Purchase Capital Stock to be duly executed as of the Issuance Date set out above.

PANACEA LIFE SCIENCES, INC.

By: /s/ Leslie Buttorff
Name: Leslie Buttorff
Title: CEO

Address:
16194 W 45th Ave
Golden, CO 80403

22ND CENTURY GROUP, INC.

By: /s/ Clifford B. Fleet
Name: Clifford B. Fleet
Title: President and CEO

Address:
8560 Main Street
Suite 4
Williamsville, New York 14221

EXHIBIT A

EXERCISE NOTICE
TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE SERIES B PREFERRED STOCK

PANACEA LIFE SCIENCES, INC.

The undersigned holder hereby exercises the right to purchase _____ of the shares of Series B Preferred Stock ("***Warrant Shares***") of Panacea Life Sciences, Inc., a Colorado corporation (the "***Company***"), evidenced by Warrant No. _____ (the "***Warrant***"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1 . Payment of Exercise Price. The Holder shall pay the Aggregate Exercise Price in the sum of $_____ to the Company in accordance with the terms of the Warrant. The Aggregate Purchase Price shall be delivered as follows:

[___] Exercise for Cash
[___] Exercise for shares of Holder Common Stock
[___] Exercise for a combination of Cash and Holder Common Stock

2 . Delivery of Warrant Shares. The Company shall deliver to Holder, or its designee or agent as specified below, _____ shares of Series B Preferred Stock in accordance with the terms of the Warrant. Delivery shall be made to Holder, or for its benefit, to the following address:

_____
_____
_____
_____

3. Redemption. Pursuant to Section 4(f) of the Warrant, the Company will redeem _____ shares of Company Common Stock beneficially owned by Quintel within two (2) Business Days following any exercise of the Warrant.

Date: _____ __, _____

_____
Name of Registered Holder

By: _____
Name:
Title:

Exhibit 10.4

AGREEMENT

This **AGREEMENT** (this "**Agreement**"), dated as of December 3, 2019 (the "**Effective Date**"), is entered into by and among Panacea Life Sciences, Inc., a Colorado corporation (the "**Company**"), [EMPLOYEE], [EMPLOYEE], [EMPLOYEE] AND [EMPLOYEE] (each a "**Key Employee**" and collectively, the "**Key Employees**"), Quintel-MC Incorporated, a Colorado corporation ("**Quintel**"), and 22nd Century Group, Inc., a Nevada corporation (the "**Purchaser**"). Each of the Company, the Key Employees, Quintel and the Purchaser are referred to herein as, a "**Party**" and, collectively as, the "**Parties**". Capitalized terms used in this Agreement but not otherwise defined shall have the meanings set forth in the Purchase Agreement (as defined below).

Whereas, concurrently with the execution of this Agreement, the Company and the Purchaser are entering into a Series B Preferred Securities Purchase Agreement (the "**Purchase Agreement**") providing for the sale of shares of the Series B Preferred Stock, par value $0.01 per share, of the Company to the Purchaser; and

Whereas, in connection with the consummation of the transactions contemplated by the Purchase Agreement, the Parties desire to enter into this Agreement in order to grant certain rights and obligations of the Parties.

Now, Therefore, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Quintel Exchange. During the period beginning on the date that the Series B Warrant is fully exercised (the "**Warrant Exercise Date**") and ending on the second (2nd) anniversary of the Warrant Exercise Date, Quintel shall have the right, but not the obligation, to exchange any shares of preferred stock, par value $0.01 per share (the "**Preferred Stock**"), of the Company owned by Quintel, any shares of Common Stock owned by Quintel, and any outstanding indebtedness running from Quintel to the Company, in each case for shares of Purchaser Common Stock upon 90 days' prior written notice (the "**Exchange Notice**") from Quintel to the Company and the Purchaser (a "**Quintel Exchange**"). The per share dollar value of any share of Preferred Stock or Common Stock to be exchanged by Quintel in the Quintel Exchange shall be equal to the Series B Warrant exercise price per share of $2.344 (as may adjusted pursuant to the terms of the Series B Warrant, the "**Warrant Per Share Price**"), and such aggregate dollar value of the shares of Preferred Stock and Common Stock subject to any Quintel Exchange shall be applied to a corresponding number of shares of Purchaser Common Stock based on the 90-day VWAP on the date the Purchaser delivers to Quintel the Purchaser Common Stock in the Exchange; provided that in no event will such price be less than $1.00. The shares of Purchaser Common Stock issued pursuant to any Quintel Exchange shall have customary lock-up provisions, and Quintel and the Purchaser will mutually agree upon a schedule for any planned dispositions of the Purchaser Common Stock by Quintel. For the purposes of this Agreement, "**90-day VWAP**" means, as of any date, the volume weighted average price per share of the Purchaser Common Stock on the Principal Trading Market (as reported by Bloomberg L.P. (or its successor) or, if not available, by another authoritative source mutually agreed by the Company and the Holder) from 9:30 a.m. (New York City time) on the Trading Day that is ninety (90) Trading Days preceding such date to 4:00 p.m. (New York City time) on the last Trading Day immediately preceding such date.

2. Put Right. During the period beginning on the Warrant Exercise Date and ending on the second (2nd) anniversary of the Warrant Exercise Date, upon the entry by the Company into one or more binding agreements to effect a Fundamental Transaction (as defined in the Series B Warrant) or series of liquidity events that result in a Fundamental Transaction (as defined in the Series B Warrant), and for a period of thirty (30) days thereafter, Quintel shall have the right but not the obligation to require the Purchaser to purchase (the "**Put Right**") all of the issued and outstanding shares of capital stock of the Company owned by Quintel by providing written notice (the "**Put Notice**") to the Company and the Purchaser. Following delivery of the Put Notice by Quintel, the Purchaser shall be obligated to purchase, and Quintel shall sell all of its shares of capital stock of the Company for an aggregate purchase price (the "**Put Purchase Price**") equal to 1.5 times Quintel's currently invested capital ($17,000,000) in the Company. The Purchaser shall deliver payment to the Company of the Put Purchase Price in any of the following forms (in the Purchaser's sole discretion) (i) cash by wire transfer of immediately available funds, (ii) shares of Purchaser Common Stock, or (iii) a combination of cash by wire transfer of immediately available funds and shares of Purchaser Common Stock. If the Purchaser determines (in its sole discretion) to pay all or a portion of the Put Purchase Price by delivering to Quintel shares of Purchaser Common Stock, the value of each share of Purchaser Common Stock shall be equal to the 30-day VWAP on the date of the Put Notice; provided that in no event shall the value of each share of Purchaser Common Stock be less than $1.00.

3. Key Employees.

(a) During the period beginning on Warrant Exercise Date and ending on the second (2nd) anniversary of the Warrant Exercise Date, no Key Employee shall be terminated from employment by the Company or from providing services to the Company, as an independent contractor (other than a Termination for Cause) prior to the second (2nd) anniversary of the Warrant Exercise Date. A "**Termination for Cause**" means the termination by the Company of a Key Employee's employment with the Company as a result of (i) the commission by such Key Employee of a fraud, (ii) such Key Employee's conviction of or plea of guilty or nolo contendere to a crime that constitutes a felony (or state law equivalent), if such felony is work-related, materially impairs the Key Employee's ability to perform services for the Company or results in material or financial harm to the Company or its Affiliates, (iii) gross negligence or gross misconduct by such Key Employee with respect to the Company or any Affiliate of the Company, (iii) such Key Employee's willful or intentional failure to materially comply (to the best of his or her ability) with a specific direction of the Board of Directors of the Company that is consistent with normal business practices, which is not cured within three (3) days after written notice thereof to such Key Employee, (iv) such Key Employee's breach of a material employment policy of the Company, which is not cured within three (3) days after written notice thereof to Executive, or (v) any other breach by such Key Employee of any employment agreement with the Company and which is not cured within thirty (30) days after written notice thereof to such Key Employee.

(b) The Key Employees shall receive retention bonuses within ninety (90) days following the Warrant Exercise Date in an aggregate amount equal to 8% of the net revenues (defined as gross revenues (determined in accordance with GAAP) of the Company less sales discounts, sales returns, allowances and sales commissions) (determined in accordance with of the Company for the twelve-month period ending on the Warrant Exercise Date; provided that the aggregate amount of such retention bonuses paid to the Key Employees shall not exceed $20,000,000. The retention bonuses shall be paid by the Purchaser (in the Purchaser's sole discretion) (i) in cash, (ii) in shares of Purchaser Common Stock, or (iii) in a combination of cash and shares of Purchaser Common Stock. If the Purchaser determines to pay all or a portion of the retention bonuses in shares of Purchaser Common Stock, the value of each share of Purchaser Common Stock shall be based on the closing sale price of the Purchaser Common Stock on the Principal Trading Market on the day immediately prior to the date that the Board of Directors of the Purchaser determines that the condition to the retention bonuses has been met (subject to the rules of the Principal Trading Market); provided that in no event will such price be less than $1.00.

(c) Each Key Employee will be eligible for performance-based bonuses based on continued employment with the Company, to be paid in a combination of cash and equity awards under the Purchaser's equity incentive plan.

(d) For a period of two (2) months following any full or partial Quintel Exchange, each holder of an option to Purchaser Common Stock shall have the right to have such option converted into one or more of the following (at the Purchaser's sole election): (i) shares of Purchaser Common Stock (subject to the rules of the Principal Trading Market), (ii) an option to purchase shares of Purchaser Common Stock (subject to the rules of the Principal Trading Market), and/or (iii) cash.

4. Principal Market Regulation. The Purchaser shall only issue shares of Purchaser Common Stock pursuant to this Agreement in an amount that would not cause the Company to breach its obligations under the rules or regulations of the Principal Trading Market (the "**Exchange Cap**"), except that such limitation shall not apply in the event that the Purchaser (i) obtains the approval of its stockholders as required by the applicable rules of the Principal Trading Market for issuances of shares of Purchaser Common Stock in excess of such amount, or (ii) obtains a written opinion from outside counsel to Purchaser that such approval is not required. Until such approval or written opinion is obtained, the Purchaser shall not issue shares of Purchaser Common Stock pursuant to this Agreement in an amount greater than the Exchange Cap.

5. Miscellaneous.

(a) Further Assurances; Additional Actions and Documents. Each Party shall take or cause to be taken such further actions, and shall execute, deliver, and file or cause to be executed, delivered, and filed such further documents and instruments, as another Party may reasonably request in order to effectuate more fully the purposes, intent, terms, and conditions of this Agreement.

(b) Entire Agreement; Modification; Benefit; Assignment.

(i) This Agreement along with the Purchase Agreement and the agreements contemplated thereby constitutes the entire agreement of the Parties with respect to the matters contemplated herein and supersedes all prior oral and written agreements with respect to such matters.

(ii) This Agreement may not be amended or otherwise modified except by written instrument executed by the Parties.

(iii) It is the explicit intention of the Parties that no person other than the Parties is or shall be entitled to bring any action to enforce any provision of this Agreement against a Party, and that the covenants, undertakings, and agreements set forth in this Agreement shall be solely for the benefit of, and shall be enforceable only by, the Parties or their respective successors and permitted assigns.

(iv) This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns, but neither this Agreement nor any of the rights, interests, or obligations hereunder shall be assigned by a Party without prior written consent of the other Parties hereto, which consent shall not be unreasonably withheld, conditioned, or delayed, and no additional monetary consideration shall be exacted for such consent so long as the intended assignee assumes in writing the obligations of the assignor hereunder.

(c) Notices. All notices and other communications given or made pursuant hereto shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the respective parties at the addresses set forth on the signature page hereto. Each Party shall have the right to change the place to which notices shall be sent or delivered or to specify additional addresses to which copies of notices may be sent, in either case by similar notice sent or delivered in like manner to the other Party.

(d) Governing Law; Choice of Forum; Waiver of Jury Trial. THIS AGREEMENT SHALL IN ALL RESPECTS, INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF DELAWARE, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. ALL LEGAL ACTIONS OR PROCEEDINGS BROUGHT AGAINST A PARTY WITH RESPECT TO THIS AGREEMENT MAY BE BROUGHT IN ANY STATE OR FEDERAL COURT OF COMPETENT JURISDICTION IN THE CITY OF WILMINGTON, DELAWARE, AND, BY EXECUTION AND DELIVERY OF THIS AGREEMENT, EACH PARTY ACCEPTS, FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, THE JURISDICTION OF THE AFORESAID COURTS AND IRREVOCABLY AGREES TO BE BOUND BY ANY JUDGMENT RENDERED THEREBY IN CONNECTION WITH THIS AGREEMENT. EACH PARTY HEREBY EXPRESSLY AND IRREVOCABLY WAIVES ANY CLAIM OR DEFENSE IN ANY SUCH ACTION OR PROCEEDING BASED ON ANY ALLEGED LACK OF PERSONAL JURISDICTION, IMPROPER VENUE OR FORUM NON-CONVENIENS OR ANY SIMILAR BASIS. EACH PARTY FURTHER IRREVOCABLY CONSENTS TO THE SERVICE OF ANY COMPLAINT, SUMMONS, NOTICE OR OTHER PROCESS RELATING TO ANY LEGAL ACTION OR PROCEEDING BY DELIVERY THEREOF TO IT BY HAND OR BY MAIL TO THE ADDRESS SET FORTH IN PARAGRAPH 7(a) HEREOF. NOTHING HEREIN SHALL AFFECT THE RIGHT OF A PARTY TO BRING PROCEEDINGS AGAINST ANOTHER PARTY IN THE COURTS OF ANY OTHER JURISDICTION OR TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW. EACH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, SUIT OR COUNTERCLAIM ARISING IN CONNECTION WITH THIS AGREEMENT.

(e) Severability. If any part of any provision of this Agreement or any other agreement, document, or writing entered into or given pursuant to or in connection with this Agreement shall be invalid or unenforceable under applicable law, said part shall be ineffective to the extent of such invalidity or unenforceability only, without in any way affecting the remaining parts of said provision or the remaining provisions of this Agreement or such agreement, document, or writing. Upon any determination that any such provision is invalid or unenforceable, the Parties shall negotiate in good faith to modify this Agreement so as to affect the original intent of the Parties as closely as possible in an acceptable manner to the end that the transactions contemplated hereby are fulfilled to the fullest extent possible.

(f) Waiver. Neither the waiver by any Party of a breach of any of the provisions of this Agreement, nor the failure of any Party, on one or more occasions, to enforce any of the provisions of this Agreement or to exercise any right or privilege hereunder shall thereafter be construed as a waiver of any subsequent breach of a similar nature, or as a waiver of any of such provisions, rights, or privileges hereunder.

(g) Headings. Section and subsection headings contained in this Agreement are inserted for convenience of reference only, shall not be deemed to be a part of this Agreement for any purpose, and shall not in any way define or affect the meaning, construction, or scope of any of the provisions hereof.

(h) Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(i) Joint Effort. Preparation of this Agreement has been a joint effort of the Parties and the resulting document shall not be construed more severely against one Party than against another Party

[Signature Pages to Follow]

IN WITNESS WHEREOF, this Agreement has been duly executed and delivered by a duly authorized officer of each Party hereto as of the date first above written.

PANACEA LIFE SCIENCES, INC.

By: /s/ Leslie Buttorff
Name: Leslie Buttorff
Title: Chief Executive Officer

Address:19194 West 45th Drive, Golden, CO 80403

QUINTEL-MC INCORPORATED

By: /s/ Leslie Buttorff
Name: Leslie Buttorff
Title: President

Address:5910 S University Blvd, STE C18-193, Greenwood Village, CO 80121

[EMPLOYEE]

Address:

[EMPLOYEE]

Address:

[EMPLOYEE]

Address:

[EMPLOYEE]

Address:

22nd CENTURY GROUP, INC.

By: /s/ Clifford B. Fleet
Name: Clifford B. Fleet
Title: President & CEO

Address:8560 Main Street, Suite 4, Williamsville, New York 14221

Exhibit 99.1

22nd Century Group Enters CBD Health and Wellness Market with Investment in Panacea Life Sciences, Inc.

Investment provides platform to commercialize 22nd Century's unique hemp/cannabis plant lines in development and leverage strengths in consumer-packaged-goods and FDA-regulatory affairs

22nd Century Group, Inc. (NYSE American: XXII), a plant biotechnology company that is a leader in tobacco harm reduction, Very Low Nicotine Content (VLNC) tobacco and hemp/cannabis plant research, announced today the initial closing of an investment in Panacea Life Sciences, Inc. (Panacea), a rapidly-growing, vertically-integrated, consumer-facing company operating exclusively in the legal, hemp-derived, CBD product space. 22nd Century's investments in Panacea over the next twelve to eighteen months are expected to total $24 million, in a combination of cash and 22nd Century stock in exchange for Panacea-issued debt and preferred equity. 22nd Century has also received a warrant to purchase preferred stock of Panacea, which upon full exercise will provide 22nd Century with a controlling equity position in Panacea.

"After a disciplined and thorough review of the opportunities available to 22nd Century to maximize shareholder value creation, we are pleased to announce the Company's first investment in the legal, hemp/cannabis, consumer packaged goods space," said Cliff Fleet, President and Chief Executive Officer of 22nd Century Group. "This investment is a major milestone in 22nd Century's on-going execution of our hemp/cannabis strategic growth plan and offers the opportunity for strong projected shareholder returns.

"Our objective is to build a leading, profitable business in the fast-growing, emerging, legal hemp/cannabis space, and Panacea is a rapidly-growing, vertically-integrated, consumer-facing business with a very strong management team. We plan for Panacea to be a platform operating company in the hemp/cannabis space that is able to leverage our leadership in cannabis-plant research, our comprehensive expertise in FDA-regulated spaces, and our leadership team's deep experience in consumer packaged goods," Fleet explained.

"We are pleased to enter into this long-term strategic partnership with 22nd Century," said Leslie Buttorff, Chief Executive Officer of Panacea Life Sciences, Inc. "With a strong team and seed-to-sale operations in place, Panacea is on track to deliver sales growth of over 1,000 percent in 2019, with gross margins over 50%. Our success has been possible because of our focus from day one on producing and marketing the highest-quality, hemp-derived, premium CBD products.

"Our supply chain is complete with track-and-trace capabilities and stringent quality control and testing at every step from seed-to-sale, including at our plant nursery and farm on the western slope of Colorado, as well as in our comprehensive extraction, distillation, testing and manufacturing operations located in a former Environmental Protection Agency (EPA) facility in Golden, Colorado. With state-of-the-art CO2 extraction, chromatography equipment to produce THC-free distillate oil, and product manufacturing lines, we can produce over $1 billion of product per year. We have also invested heavily in the development of a full, medically relevant, product portfolio for humans and animals. This is all driven by our talented, dedicated team and supported by a world-class, custom-developed, SAP-based, Cannabis ERP system which tracks the full chain of custody for every product we sell, which we believe clearly sets us apart from most other companies in the space. 22nd Century's investment will allow us to continue to scale our business – including the acceleration of our online and retail sales and marketing efforts focused on the Panacea brand," Buttorff explained.

“Our organizations have already worked very well together, and we look forward to building an even stronger relationship between the two companies,” said Michael Zercher, 22nd Century’s Chief Operating Officer. “We believe 22nd Century’s leading position in hemp/cannabis plant research and experience with the branding, marketing and sales of FDA-regulated consumer packaged goods will help Panacea to stand apart from the competition as we look to become a highly-differentiated group of leading companies in the fast-growing, legal, hemp-derived cannabinoid product space. The Panacea team has an impressive track record – both with the launch and growth of Panacea’s CBD business and in their prior careers as entrepreneurs and corporate leaders in ERP systems, management consulting, pharma and media. We are excited to be partnered with Leslie and her team, and I am confident Panacea is very well-positioned for the fast-growing, competitive and increasingly complex hemp/cannabis marketplace. We are very excited about our future with Panacea,” Zercher concluded.

The details of the Company’s investment in Panacea are described in a Form 8-K filed with the Securities and Exchange Commission.

About Panacea Life Sciences, Inc.

Panacea Life Sciences, a woman-owned and woman-led company, is dedicated to developing and producing the highest-quality, medically-relevant, legal, THC-free, hemp-derived cannabinoid products for consumers and pets from our 51,000 square foot, state-of-the-art, cGMP, extraction, manufacturing, testing and fulfillment center located in Golden, Colorado. Panacea operates in every segment of the CBD product value chain, from cultivation to finished goods, with stringent testing protocols employed at every stage of the supply chain from seed-to-sale. Panacea offers a line of THC-free, human and animal CBD products, including fast-acting sublingual tablets, soft gels, gummies, tinctures, cosmetics and other topicals. Panacea products can be purchased online at https://panacealife.com. For more information about Panacea Life Science’s history and management team visit https://panacealife.com/about/.

About 22nd Century Group, Inc.

22nd Century is a plant biotechnology company focused on technology which allows it to decrease the level of nicotine in tobacco plants and to modify the level of cannabinoids in hemp/cannabis plants through genetic engineering and modern plant breeding. 22nd Century’s growth strategies are focused on meaningful, long-term, shareholder value creation. The Company’s first strategic growth objective is to drive change in the tobacco industry by reducing the harm caused by smoking through the commercialization of its proprietary Very Low Nicotine Content tobacco and related intellectual property. The Company’s second strategic growth objective is to build a leading, profitable business in the fast-growing, emerging, legal hemp/cannabis space by leveraging its leadership in cannabis plant research, comprehensive expertise in FDA-regulated spaces, leadership team with deep experience in consumer packaged goods, and strong and flexible balance sheet. To learn more about 22nd Century, please visit www.xxiicentury.com.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking information, including all statements that are not statements of historical fact regarding the intent, belief or current expectations of 22nd Century Group, Inc., its directors or its officers with respect to the contents of this press release, including but not limited to our future revenue expectations. The words “may,” “would,” “will,” “expect,” “estimate,” “anticipate,” “believe,” “intend” and similar expressions and variations thereof are intended to identify forward-looking statements. We cannot guarantee future results, levels of activity or performance with respect to the Company’s investment in Panacea or otherwise. You should not place undue reliance on these forward-looking statements, which speak only as of the date that they were made. These cautionary statements should be considered with any written or oral forward-looking statements that we may issue in the future. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to reflect actual results, later events or circumstances, or to reflect the occurrence of unanticipated events. You should carefully review and consider the various disclosures made by us in our annual report on Form 10-K for the fiscal year ended December 31, 2018, filed on March 6, 2019, including the section entitled “Risk Factors,” and our other reports filed with the U.S. Securities and Exchange Commission which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operation and cash flows. If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected.